



Module: Introduction

Page: Introduction Supply Chain

Climate change

Please tick the box below to complete the introduction questions for Climate Change

true

CC0.1 Introduction

Please give a general description and introduction to your organization.

Founded in 1979, Ingram Micro provides comprehensive commerce and fulfillment solutions, cloud services, and mobility and lifecycle services to 200,000 customers in 160 countries. Our infrastructure spans approximately 350 offices, distribution facilities and service centers in 56 countries and our operations are made possible by 30,000 associates. Ingram Micro represents approximately 1,700 original equipment manufacturers. Until our December 2016 acquisition by Tianjin Tianhai Investment Company, a subsidiary of China-based HNA Group, Ingram Micro was a Fortune 100 company, trading on the NYSE.

We solidified our global CSR strategy in late 2015 with a dedicated sustainability role, investment into global information management systems, and a commitment to meet the needs of our diverse stakeholders worldwide. To learn more about our 3-year CSR implementation plan, please visit <http://corp.ingrammicro.com/About-Us/Social-Responsibility.aspx>.

CC0.2 Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year. Please enter dates in following format: day/month/year (in full i.e. 2001).

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3 Country list configuration

Please select the countries for which you will be supplying data.

Select country
Australia
Bangladesh
China
Hong Kong
India
Indonesia
Malaysia
New Zealand
Philippines
Singapore
Thailand
Vietnam
Austria
Belgium
Bulgaria
Denmark
Egypt
Finland
France
Germany
Croatia
Israel
Italy
Lebanon
Luxembourg
Netherlands
Norway
Oman
Morocco
Poland
Portugal
Russia
Saudi Arabia

Select country
Serbia
Slovakia
South Africa
Spain
Sweden
Switzerland
Turkey
United Arab Emirates
United Kingdom
Argentina
Brazil
Chile
Colombia
Ecuador
Peru
Uruguay
Canada
Costa Rica
Mexico
Puerto Rico
United States of America
Cambodia
Sri Lanka
The former Yugoslav Republic of Macedonia

CC0.4
Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

CC0.5
Please select if you wish to complete a shorter information request.

Water
Please tick the box below to complete the introduction questions for Water

false

Further Information

Module: Management

Page: CC1. Governance

CC1.1
Where is the highest level of direct responsibility for climate change within your organization?

Other Manager/Officer

CC1.1a
Please identify the position of the individual or name of the committee with this responsibility

Corporate Social Responsibility Manager

CC1.2
Do you provide incentives for the management of climate change issues, including the attainment of targets?

No

Further Information

Ingram Micro has established an executive CSR committee that receives at least two annual CSR briefings. However, the committee presently has no day-to-day responsibilities related to climate change.

Page: CC2. Strategy

CC2.1
Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

A specific climate change risk management process

CC2.1a
Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
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Six-monthly or more frequently	Other committee	Global	> 6 years	Our CSR Committee consists of seven senior executives representing finance, legal, HR, and each operational region.
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CC2.1b
Please describe how your risk and opportunity identification processes are applied at both company and asset level

In 2016, we distributed a comprehensive energy and climate change questionnaire to approximately 250 global facilities, comprising over 95% of our worldwide floor space. The questionnaire mirrored CDP's section on climate change risks and opportunities, listing all possible risks (regulatory, physical and other) and opportunities associated with climate change.

At the asset level, cross-functional teams evaluated their regional risks and opportunities. Moreover, a subject matter expert performed the analysis at the company level, based on the latest models and recommendations from the scientific community and taking into consideration regional responses. In addition to providing a global risk evaluation, this process also allowed us to identify training opportunities where employees are unable to perform the risk assessment or where the gap between science-based information/predictions and facility-level perception of risk is significant.

At the corporate level, we are developing tools to close the climate change awareness gap, recommend and support facility emissions reduction initiatives and negotiate renewable energy sources in power purchase agreements.

CC2.1c
How do you prioritize the risks and opportunities identified?

Risks are prioritized based on a combined score derived from likelihood of occurrence, expected time frame for occurrence and impact. In 2016, Ingram Micro also completed a formal CSR stakeholder engagement initiative in order to verify that this prioritization meets stakeholder needs. Opportunities are prioritized based on their ability to mitigate key risks and on feasibility, including technological capacity, cost of adoption and stakeholder demand.

CC2.2
Is climate change integrated into your business strategy?

No

CC2.2b
Please explain why climate change is not integrated into your business strategy

We adopted our global CSR strategy in December 2015. The program is too immature to be fully integrated into our overall business strategy. At this time, we are still building the foundation of our CSR program, including information management systems, a CR reporting process and a supply chain sustainability program. We aim to achieve integration via global implementation of the ISO 26000 framework by 2020.

CC2.2c
Does your company use an internal price on carbon?

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

CC2.3
Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

No

CC2.3g
Please explain why you do not engage with policy makers

Since climate change is not presently integrated into Ingram Micro's business strategy, no resources have been allocated towards engagement with policy makers. Prior to 2016, stakeholder engagement on climate change issues has been limited. Our 2016 stakeholder engagement revealed that energy and emissions are a top priority for our stakeholders. We will therefore consider opportunities for engagement with policy makers during our 2018 goal-setting process.

Further Information

Page: CC3. Targets and Initiatives

CC3.1
Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Absolute target

CC3.1a
Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1+2 (location-based)	96.6%	10%	2015	111506	2017	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	Because we have not yet screened all applicable scope 3 emissions sources, our target is not eligible for verification by the SBTI. However, we utilized the SDA Tool (V 8.0) to calculate our scope 1 and 2 emissions reduction target. According to the tool, our combined scope 1 and 2 reduction target is 7%. We set a more aggressive target of 10% by 2017.

CC3.1e
For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	50%	52.9%	

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Group of products	Ingram Micro's Lifecycle Services business repairs, refurbishes and recycles waste electronics according to a circular economy model.	Avoided emissions	Other: EPA EEBC	0.35%	Less than or equal to 10%	We calculated 2016 avoided greenhouse gas emissions from our Lifecycle Services business using the Electronics Environmental Benefits Calculator. Total avoided greenhouse gas emissions related to our CloudBlue IT Asset Disposition business equaled 1.2 million metric tons. If we extrapolate this to our Anovo business (which has not yet quantified avoided emissions), the total rises to approximately 2.14 million metric tons.

CC3.3

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

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	7	6296
Not to be implemented		

CC3.3b

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

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	LED lighting retrofits, interior and exterior	6296	Scope 2 (location-based)	Voluntary	470737	689638	1-3 years	6-10 years	

CC3.3c

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

Method	Comment
Financial optimization calculations	2016 projects were further encouraged by the availability of rebates.
Employee engagement	

Further Information

Our response to question C3.3a does not provide an exhaustive list of projects, as we lack the systems to track projects globally each year. However, these are the largest projects we completed in 2016 at a corporate procurement level.

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Underway - this is our first year			Our CSR report is scheduled to be published by early September and contains a complete section on emissions management and performance. The report will be available here upon publication: http://corp.ingrammicro.com/About-Us/Social-Responsibility/CRS-Report.aspx

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1 Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation
- Risks driven by changes in physical climate parameters
- Risks driven by changes in other climate-related developments

CC5.1a Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	Carbon taxes, like emissions trading schemes, are now globally under consideration and have already been implemented in limited Ingram Micro operational regions. Any large-scale impacts on the cost of fossil fuels from carbon taxes would impact our operating expenses.	Increased operational cost	3 to 6 years	Direct	About as likely as not	Low-medium	Unknown, due to the scope of our operations and limited historical data. Variation in carbon tax by country (e.g. \$5/mt in Chile, ~\$20/mt in Ireland and \$168/mt in Sweden) make predictions difficult.	Existing carbon taxes are not impacting our operations at this time, so management is limited to monitoring of global developments in carbon markets.	Investment in dedicated staff
Air pollution limits	Ingram Micro has significant operations in China and India, where air pollution poses major public health challenges that may result in increased vehicle emissions regulations. While this is unlikely to affect us directly, it may impact the cost of third party fleet services that are critical to our operations.	Increased operational cost	1 to 3 years	Indirect (Supply chain)	Likely	Low-medium	Unknown, due to the difficulty of estimating the cost of fleet improvements that would be passed on to customers by fleet services providers.	Closely monitor developments. We are also anticipating increased interaction with supply chain partners in the future.	Investment in dedicated staff

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Emission reporting obligations	EU Directive 2014/95/EU on disclosure of non-financial and diversity information by certain large undertakings and groups indicate increased interest in mandatory ESG reporting. Since emissions are a material environmental impact from Ingram Micro's worldwide operations, any such requirements are likely to impact us.	Increased operational cost	Up to 1 year	Direct	Virtually certain	Low	Approximately \$100,000 annually for emissions reporting only (excluding 3rd party assurance).	We have monitored developments in this area and prepared by adopting information management systems and allocating resources towards meeting mandatory ESG reporting requirements.	This activity is managed by in-house sustainability staff and the cost of management is included in the estimated annual total cost of approximately \$100,000.
Fuel/energy taxes and regulations	In the U.S., fuel taxes may be impacted by proposed "preference" eliminations, the distribution of tax benefits to providers of renewable energy and the imposition of new taxes. In most other OECD countries, fuel taxes are already high and impacting transportation costs. As alternatives continue to emerge, cost increases related to fossil fuel use are likely. These increases may affect Ingram Micro's operational costs related to distribution by 3rd party fleet services and building energy.	Increased operational cost	3 to 6 years	Indirect (Supply chain)	More likely than not	Low-medium	Unknown, due to the difficulty of estimating the costs fleet services providers would pass on to customers. Increases in building energy costs from fossil fuel taxes would likely be manageable or result in the consideration of renewable options.	Closely monitor developments in global markets.	Investment in dedicated staff

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Lack of regulation	Lack of regulation in some operational areas and the resulting regulatory variability across global regions impedes standardized management of regulatory obligations.	Increased operational cost	1 to 3 years	Direct	Virtually certain	Low	Need for systems and human resources to manage varying degrees of regulatory compliance obligations across global regions, including monitoring changes and implementing global management systems that are not burdensome to some regions while potentially being inadequate in others.	Adopting environmental compliance management platform in 2016, supported by an existing dedicated sustainability management role.	Close to \$200,000 annually, including systems and staff.
General environmental regulations, including planning	Similarly to lack of regulation, regulatory variability across global regions impedes standardized management of regulatory obligations.	Increased operational cost	1 to 3 years	Direct	Virtually certain	Medium	See financial implications of lack of regulation.	Adopting environmental compliance management platform in 2016, supported by an existing dedicated sustainability management role.	See cost of managing lack of regulation.
Renewable energy regulation	Following developments in building codes requiring renewable energy supply (e.g. San Francisco 2016), it is possible that some localities will require renewable energy installations on buildings in the future to attain regional emissions reduction or renewable energy supply targets.	Increased capital cost	>6 years	Direct	About as likely as not	Medium	Cost of technology	Monitor renewable energy regulations. In 2016, Ingram Micro completed its first global greenhouse gas emissions inventory and determined that 0.62% of energy originated from renewable sources in 2015. Now that this data is available, we are in a position to discuss our energy strategy going forward and plan on doing so in 2016.	Unknown

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	Both the Montreal Protocol and COP21 may impact operational costs. The Montreal Protocol affects us by requiring the phase-out of HCFC-22 by 2020, affecting a significant number of Ingram Micro facilities. COP21, despite U.S. withdrawal, will continue to impact global practices by which we have to abide as an organization with international operations.	Increased operational cost	1 to 3 years	Direct	Virtually certain	Low-medium	Unknown at this time. Impacts of COP21 on the private sector remain to be seen. The cost of R-22 has already tripled to quadrupled with a 90% decrease in production.	Several R-22 reliant AC units have already been replaced with units using R-410A. This is expected to continue with scheduled retrofits. The strategy for the remaining units will be discussed in the coming two years.	The R-22 phase-out is manageable by facilities staff and cost depends on various factors, including whether sites phase out the refrigerant or opt for high-cost recycled product. Costs associated with managing commitments made during COP21 are still unknown.

CC5.1b
Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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Change in temperature extremes	Due to our global presence, a decline in productivity in areas where temperature extremes occur is likely. Warehousing operations are at risk, as well as supplier activities, such as transportation.	Reduction/disruption in production capacity	1 to 3 years	Direct	Likely	Low-medium	According to a 2015 study in Nature Climate Change, titled "Heat stress causes substantial labour productivity loss in Australia," "[...] models suggest productivity may decrease by 11–27% by 2080 in hot regions such as Asia and the Caribbean, and globally by up to 20% in hot months by 2050 (Zander, K.K.; Botzen, W.J.W.; Oppermann, E.; Kjellstrom, T. & Garnett, S.T.). 20% in average global productivity losses would be equivalent to the full-time work of approximately 5,000 Ingram Micro employees per year.	Temperature extremes are managed locally at the moment (as a health & safety initiative, rather than a productivity risk), but may require strategic global management in the future.	Unknown and highly dependent on the number of extreme temperature days in an operational area.
Sea level rise	With operations in China, India and the U.S., multiple Ingram Micro locations are at risk if sea levels rise. While this is not an immediate risk, it would impact strategic locations and is therefore considered in long-term risk mitigation strategy.	Reduction/disruption in production capacity	>6 years	Direct	More likely than not	Medium	The financial implications of losing strategic operational sites could be significant. Furthermore, we may incur capital costs associated with relocating facilities.	None at the moment, aside from monitoring this risk.	Not yet evaluated.

Change in precipitation extremes and droughts	As with temperature extremes, droughts and precipitation extremes may disrupt operations, including the operations of key product and service providers, and result in loss of productivity. According to NASA, water scarcity currently affects 4 billion people globally. Ingram Micro operational sites in China, India, Mexico, and several U.S. states are at risk. Particularly in South-East Asia, flood risk in combination with the effects of economic development could result in severe business disruptions.	Reduction/disruption in production capacity	3 to 6 years	Direct	Virtually certain	Low	The direct financial implications from drought would be minimal, as Ingram Micro's services are not water-dependent. However, provision of water and sanitary facilities for employee use are critical. Severe disruption in water availability would impact local operations. Flooding could pose a significant financial risk where it affects distribution activities and water availability issues could furthermore disrupt critical supplier activities, including product manufacture.	Monitor patterns of droughts and flooding globally.	Unknown, but not anticipated to be significant.
Tropical cyclones (hurricanes and typhoons)	Our operations in North America, Central America and East Asia are at risk of increasingly intense (though potentially fewer) hurricanes and cyclones.	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Low-medium	Depending on the severity of the event, Ingram Micro facilities or supply chain activities may be impacted.	None	Unknown

Uncertainty of physical risks	Climate change effects may have confounding impacts that current scientific models are not accurately predicting, particularly with regard to global biodiversity and human health. Therefore, impacts and timelines could be more or less severe than predicted, rendering prioritization of risk mitigation activities rather complex.	Wider social disadvantages	>6 years	Direct	Likely	Medium-high	Financial implications could range from less than anticipated to detrimental.	Close monitoring of information produced by the scientific community and presenting new findings to company decision makers in a timely manner.	Unknown
Induced changes in natural resources	Resource shortages may indirectly impact our distribution business, for instance, shortages in rare earth minerals, fossil fuel or water required to manufacture the products we distribute.	Inability to do business	>6 years	Indirect (Supply chain)	More likely than not	High	Financial implications are dependent on the scope of the resource shortage, but would result in immediate revenue loss.	Our 3-year strategy anticipated increased interaction with suppliers to promote responsible business practices. In the longer-term, we plan to explore our role in the circular economy.	Investment in dedicated staff

CC5.1c
Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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Reputation	<p>Even though Ingram Micro is not a consumer-facing brand, we rely on the reputation we build with our customers, suppliers, investors, and our associates across the globe. The expectations of these stakeholders are changing, as indicated by a rising number of customer requests for sustainability information, feedback from associates and prospective employees and regulatory and market developments. Striving to meet these expectations reduces risk and stabilizes our business.</p>	Reduced demand for goods/services	3 to 6 years	Indirect (Supply chain)	More likely than not	Medium	<p>The financial implications are dependent on multiple variables, including competitor activity, and therefore difficult to predict. If we fail to meet stakeholder expectations over time, the resulting decline in business activity is expected to be gradual and generally minor.</p>	<p>Strive to meet customer expectations by executing our initial 3-year sustainability strategy, which includes the disclosure of our global GHG emissions inventory, followed by a GRI G4 report in 2017.</p>	<p>Investment in dedicated CSR staff and information and compliance management platforms to meet our corporate environmental obligations and stakeholder demands for information (and investment of approximately \$1.25 million over 3 years with future investments to be determined).</p>
Changing consumer behavior	<p>A noticeable reduction in consumption would instantly affect our business. As more companies explore circular economic models, and as consumers become increasingly aware of the effects of current levels of consumption on the environment and society, the risk to our distribution business increases as well.</p>	Reduced demand for goods/services	>6 years	Indirect (Supply chain)	More likely than not	Medium-high	<p>Currently unknown, as change in consumer attitudes occurs slowly and is difficult to predict across the globe, particularly when factoring in developing countries.</p>	<p>Monitor changes in consumption patterns and emerging trends in alternative economic models.</p>	<p>Investment in dedicated CSR staff</p>

Increasing humanitarian demands	Increasing humanitarian demands are the outcome of combined climate change effects, including resource shortages, spread of vector-borne diseases, loss of biodiversity, and impacts on agriculture and food availability, among others. Climate refugees and social and economic instability are likely consequences of these conditions and will affect the global economy. As an enterprise with worldwide operations, this is a long-term risk we are aware of, particularly in high-risk regions.	Wider social disadvantages	>6 years	Direct	More likely than not	Medium	Unpredictable	While increasing humanitarian demands are the outcome of global activities, we strive to improve our own operations and influence our business partners to the extent possible. In areas of operations, we also participate in disaster relief efforts whenever a need arises.	Unknown at this time.
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Further Information

Page: CC6. Climate Change Opportunities

CC6.1
Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

CC6.1a
Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Renewable energy regulation	Increased renewable energy regulation, including grid mix regulations and new building standards mandating renewables, have the potential to significantly improve the energy efficiency of floor space we lease globally.	Reduced operational costs	3 to 6 years	Direct	More likely than not	Medium	Potentially significant improvement in energy efficiency per unit floor space.	We currently do not manage this opportunity, but monitor developments.	None

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Emission reporting obligations	Reporting emissions requires organized information management and provides better understanding of various financial and non-financial business impacts associated with these metrics. Reporting emissions also helps meet customer and other stakeholder expectations and provides an opportunity to evaluate improvement opportunities with regard to energy usage and procurement.	Reduced operational costs	1 to 3 years	Direct	Virtually certain	Low-medium	Potentially significant reductions in energy spend.	In 2016, we have developed a global baseline emissions inventory for 2015. Based on the outcome, we plan to establish an energy management strategy along with computing science-based reduction targets.	We anticipate an annual investment of approximately \$100,000 into information management. Any future costs associated with clean energy are anticipated to be offset by efficiency gains.
Voluntary agreements	Voluntary standards and agreements have the potential to standardize processes, thereby reducing the need to develop such processes internally. Participating in these agreements may furthermore assist us in meeting customer expectations and improve relationships with participating business partners.	Reduced operational costs	Up to 1 year	Direct	Virtually certain	Low	Reduced time investment by staff.	Monitor agreements and evaluate participation where appropriate.	No additional cost - managed by existing staff.

CC6.1b
Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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Induced changes in natural resources	Uncertainty surrounding fossil fuel resources and climate change are driving our fleet partners to increasingly seek out improvements in fuel economy. Given the impact of the transportation sector on air pollution, these improvements could be significant for some communities, particularly India and China and various U.S. regions, and specifically disadvantaged communities at greater risk of exposure from transportation-related pollution. This would directly affect communities in which we operate.	Wider social benefits	>6 years	Indirect (Supply chain)	Very likely	Medium	No direct implications expected, though improved pricing stability is possible.	None	None
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CC6.1c
Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cos manag
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Changing consumer behavior	<p>Changing consumer behavior is an opportunity to participate in emerging business models. The logistics sector in particular plays a critical role in the circular economy, where take-back of products (especially electronics) is a key factor. Ingram Micro, which presently operates multiple service centers, is already positioned to help the tech sector participate in circular business models.</p>	New products/business services	3 to 6 years	Direct	Very likely	Medium	Revenue opportunity from expansion of service business.	<p>Continue to develop and promote our IT Asset Disposition business and monitor customer demand for take-back services.</p>	No anticipated net costs
Reputation	<p>Even though Ingram Micro is not a consumer-facing brand, our reputation with our customers, employees, suppliers and other stakeholders significantly impacts our business. Improving our reputation with regard to environmental and social performance has the potential to set us apart within the supply chain services sector, while improving employee retention, attracting talent, meeting customer demand, reducing supply chain risk, and building positive community relations.</p>	Increased demand for existing products/services	1 to 3 years	Direct	Likely	Low-medium	Potential revenue opportunity by appealing to specific customer segments, particularly in the tech sector.	<p>In 2015, Ingram Micro invested in dedicated sustainability staff and developed an aggressive 3-year sustainability strategy. In 2016, we invested in information management systems and calculated our first global greenhouse gas emissions inventory. By 2018, we plan on building our management system to ISO 26000 and launch a focused supply chain sustainability effort.</p>	Known investment approximately \$1.5 million over 3 years

Induced changes in human and cultural environments	The induced changes that have already occurred or are inevitable at this point may increase inter-country, inter-industry collaboration, thereby facilitating the wider adoption of best practices and technologies.	Other: Multiple potential impacts	3 to 6 years	Direct	About as likely as not	Low-medium	Potential (extent unknown) for reduced operating costs, creation of new business opportunities, pricing opportunities/rebates, and increased production capacity.	Not managed at this time.	None
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Further Information

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

Page: CC7. Emissions Methodology

CC7.1

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

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Thu 01 Jan 2015 - Thu 31 Dec 2015	35374
Scope 2 (location-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	62168
Scope 2 (market-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	13964

CC7.2

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

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Climate Registry: General Reporting Protocol
Defra Voluntary Reporting Guidelines

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

CC7.3

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

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

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
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Further Information

Emissions factor sets in use for 2016 are attached.

Attachments

<https://www.cdp.net/sites/2017/16/40316/Supply Chain 2017/Shared Documents/Attachments/SupplyChain2017/CC7.EmissionsMethodology/Ingram Micro 2016 Emission Factors.xls>

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1

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

Operational control

CC8.2

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

31744

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have operations where we are able to access electricity supplier emissions factors or residual emissions factors, but are unable to report a Scope 2, market-based figure	We assume that we may be able to access supplier emissions factors in some markets, but did not have the capacity to collect the data at this level of detail for 2016. We therefore relied on the location-based method for all scope 2 emissions.

CC8.3a
Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
73858		

CC8.4
Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

CC8.4a
Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Data centers (3)	Emissions are not evaluated	Emissions are not evaluated	No emissions from this source	Information for data centers was not available in 2016. We aim to include emissions from data center operations in future inventories and adjust prior inventories accordingly.
Fugitive emissions from R-22 refrigerant in HVAC systems	Emissions are not evaluated	No emissions from this source	No emissions from this source	Several HVAC systems in our global facilities still consume HCFC-22 refrigerant. Due to phase-out under the Montreal Protocol and in alignment with greenhouse gas reporting standards, they have not been included in this inventory.

CC8.5
Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 10% but less than or equal to 20%	Data Gaps Extrapolation Data Management	Our inventory includes extrapolation for 14% of our facilities by floor space. The extrapolation accounts for sites that did not provide actual data. In addition, this was our first year of global data collection using a new software platform, wherefore user entry errors are expected.
Scope 2 (location-based)	More than 10% but less than or equal to 20%	Data Gaps Extrapolation Metering/ Measurement Constraints Data Management	Our inventory includes extrapolation for 14% of our facilities by floor space. The extrapolation accounts for sites that did not provide actual data. In addition, this was our first year of global data collection using a new software platform, wherefore user entry errors are expected. Finally, we operate some warehouse facilities and many administrative facilities in multi-tenant environments, where proration of electricity use is necessary.
Scope 2 (market-based)			

CC8.6
Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

No third party verification or assurance

CC8.7
Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

No third party verification or assurance

CC8.8
Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment

CC8.9
Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC9.1

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

Yes

CC9.1a

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

Country/Region	Scope 1 metric tonnes CO2e
Europe, Middle East and Africa (EMEA)	24079
Latin America (LATAM)	28
Asia Pacific (or JAPA)	262
North America	7374

CC9.2

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

By facility
By activity

CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)
Distribution	15921
Product lifecycle services	1963
Administrative/Services	13310
HVAC	550

Further Information

Emissions by facility are attached, as entering them individually would be extremely time-consuming. Scope 1 by region includes prorated emissions from refrigerants based on regional floor space.

Attachments

[https://www.cdp.net/sites/2017/16/40316/Supply_Chain_2017/Shared_Documents/Attachments/SupplyChain2017/CC9.Scope1EmissionsBreakdown\(1Jan2016-31Dec2016\)/2016_Scope_1_Emissions_by_Facility.xls](https://www.cdp.net/sites/2017/16/40316/Supply_Chain_2017/Shared_Documents/Attachments/SupplyChain2017/CC9.Scope1EmissionsBreakdown(1Jan2016-31Dec2016)/2016_Scope_1_Emissions_by_Facility.xls)

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1

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

Yes

CC10.1a

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

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Europe, Middle East and Africa (EMEA)	14966		43480	
Latin America (LATAM)	7012		15804	
Asia Pacific (or JAPA)	15126		20889	
North America	36755		84162	

CC10.2

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

By facility
By activity

CC10.2b

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

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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CC10.2c

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

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Distribution	55798	
Product lifecycle services	4681	
Administrative/Services	13328	

Further Information

Scope 2 emissions by facility are attached, as it would be extremely time-consuming to enter them individually. Ingram Micro purchased 3708 MWh in renewable energy in 2016.

Attachments

[https://www.cdp.net/sites/2017/16/40316/Supply_Chain_2017/Shared_Documents/Attachments/SupplyChain2017/CC10.Scope2EmissionsBreakdown\(1Jan2016-31Dec2016\)/2016_Scope_2_Emissions_by_Facility.xls](https://www.cdp.net/sites/2017/16/40316/Supply_Chain_2017/Shared_Documents/Attachments/SupplyChain2017/CC10.Scope2EmissionsBreakdown(1Jan2016-31Dec2016)/2016_Scope_2_Emissions_by_Facility.xls)

Page: CC11. Energy

CC11.1

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

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

CC11.2

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	0
Steam	0
Cooling	0

CC11.3

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

165555

CC11.3a

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

Fuels	MWh
Natural gas	159038
Diesel/Gas oil	6477
Motor gasoline	1.4
Propane	37.6

CC11.4

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

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
181378	181378	0	0	0	

Further Information

Page: CC12. Emissions Performance

CC12.1

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

Decreased

CC12.1a

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

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	7.59	Decrease	Reduction based on total emissions reduction from projects implemented in 2015 (=5778 mt CO2e). Calculation: ((76,132 mt CO2e (2015 emissions from electricity) - 5778 mt CO2e)/76,132 mt CO2e)-1 = -7.59%
Divestment	2.3	Decrease	Total in-scope floor space reduced by approximately 2.3% from 2015 to 2016.
Acquisitions			
Mergers			

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Change in output			
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified	4.6	Increase	Since our global emissions decreased by 5.29%, there is an unidentified increase of 4.6%. This could be due to multiple factors, including a 10% increase in global data provision (i.e. reduction in extrapolation, which is less accurate), acquisition of companies with higher than average absolute emissions, equipment changes, higher output in energy-intensive processes or facilities etc.
Other			

CC12.1b

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

Location-based

CC12.2

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

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.0000025180	metric tonnes CO2e	41938369000	Location-based	2.82	Decrease	Decrease in overall square footage (e.g. from combining facilities) and efficiency projects.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
3.426	metric tonnes CO2e	full time equivalent (FTE) employee	30821	Location-based	7.71	Decrease	Increase in workforce alongside decrease in emissions
0.005668	metric tonnes CO2e	square foot	18631225	Location-based	3.07	Decrease	Facility efficiency projects and facility consolidation resulting in energy savings

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.2

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

No

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Not evaluated				Certain to be relevant, but evaluating emissions from purchased goods and services would be an arduous 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.
Capital goods	Not relevant, explanation provided				Since Ingram Micro is primarily a service provider, emissions from capital goods are insignificant.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	6103.63	GHGP, average data method (world), using World Bank 2014 figure of 8.264%. (http://data.worldbank.org/indicator/EG.ELC.LOSS.ZS?order=wbapi_data_value_2009+wbapi_data_value+wbapi_data_value-last&sort=desc)	0%	This value reflects electricity transmission and distribution losses.
Upstream transportation and distribution	Not evaluated				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.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Waste generated in operations	Relevant, not yet calculated				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.
Business travel	Relevant, calculated	17276	Where available, air travel categorized by distance and cabin was multiplied by GHGP or DEFRA factor (including radiative forcing), except India, China and France, where categorization by distance and cabin was not available and an average DEFRA (Air Passenger Distance - Domestic - Average Class (Radiative Forcing)) factor was applied.	100%	Air travel emissions only.
Employee commuting	Relevant, not yet calculated				Evaluating commuting emissions for nearly 30,000 employees globally would be very resource-intensive and has therefore not been prioritized.
Upstream leased assets	Not relevant, explanation provided				Nearly all upstream leased assets are accounted for in Scope 1 and 2 emissions. An insignificant percentage of emissions is attributable to temporary storage space, which is highly variable and difficult to assess.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Downstream transportation and distribution	Relevant, not yet calculated				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	Not relevant, explanation provided				Our products generally do not require further processing by downstream manufacturers.
Use of sold products	Not evaluated				It is not feasible for us to evaluate emissions from use of products we resell or distribute, as we don't have the systems or resources to process data at this scale.
End of life treatment of sold products	Not evaluated				It is not feasible for us to evaluate the end of life treatment emissions of products we resell or distribute.
Downstream leased assets	Not relevant, explanation provided				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	Not relevant, explanation provided				We do not operate franchises.
Investments	Not relevant, explanation provided				We do not operate any significant investments.
Other (upstream)	Not evaluated				

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Other (downstream)	Not evaluated				

CC14.2
Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

CC14.3
Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a
Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Business travel	Acquisitions	49.21	Increase	In 2016, Ingram Micro completed several acquisitions and was then acquired itself by a China-based subsidiary of HNA Group in December 2016. These activities resulted in a significant increase in air travel.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	2.99	Decrease	We calculate electricity D&T losses by applying the GHGP average data method. This decrease is related to our overall decrease in electricity consumption. 2015 losses were adjusted to the World Bank 2014 factor.

CC14.4
Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers
Yes, our customers
Yes, other partners in the value chain

CC14.4a
Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

In 2016, we completed our first formal stakeholder engagement process, using the AA1000 framework. We surveyed employees and customers 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. Accordingly, we set a reduction target for our global operations and are evaluating strategies from facility efficiency to renewable energy purchases to reduce our impact.

CC14.4b
To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	70		We are actively engaging with 70 key suppliers by administering in-depth questionnaires to assess social and environmental performance. In early results, we have seen a 30% improvement year over year. We have not yet calculated spend with these suppliers.

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1
Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Constanze Duke	CSR Manager	Environment/Sustainability manager

Further Information