



# 5 Responsible Supply Chain

## ASUS Supply Chain

### Supply Chain Management Framework

### Sustainable Performance in Supply Chain

## Management Approach

Suppliers are our key and strategic partners to promote sustainable operations. We drive vigorously to support the development of a sustainable supply chain in line with ASUS' concept of sustainability in environment, society, and governance.

## Strategy



In response to the 17th SDG: Partnerships, based on the cooperation model, geographical relationship, and stakeholder expectations, we examine sustainability risks that might occur in suppliers' life cycle. By incorporating sustainability into the supplier management and procurement process, with responsible procurement, annual audits, and supervision project, ASUS would like to ensure our suppliers provide safe workplace to their employees, comply with environment regulations, and managing business with Ethics.

## Performance



On-site audits regarding corporate social responsibility and hazardous substances management were **100%** completed.



The audit of corporate social responsibility protected the labor rights of more than **360,000 employees** person-time. <sup>Note</sup>



**100%** of gold, tantalum, tin and tungsten came from qualified smelters.



Supervision and training projects reached a total number of more than **2,600 employee** person-times and a total number of more than **570 hours**. <sup>Note</sup>

Note: Accumulated since 2013

## ASUS Supply Chain

As a global leader in information communication technology industry, ASUS has cooperated with more than 700 suppliers, including product assembly plants and component suppliers, mainly located in China. Please see the figure for regional distribution.

We define the critical suppliers by purchase amount, supply limitation, and key technology. Critical suppliers are vital partners for ASUS in providing assurance of smooth launching regarding the mass production of products. We commit our resources to assist suppliers in sustainable management for the assurance of sustainable production.



## Supply Chain Management Framework

According to The Electronics Industry Procurement Analysis Report, more than 60% of enterprise spending is on the supply chain. Procurement management is an aspect of showing corporate social responsibility and is a critical mechanism for driving the supply chain forward to achieve the goal of sustainability. The Supply Chain Risk Management Practices published by US National Institute of Standards and Technology (NIST 800-161) identify sustainability as a vital aspect of risk management.

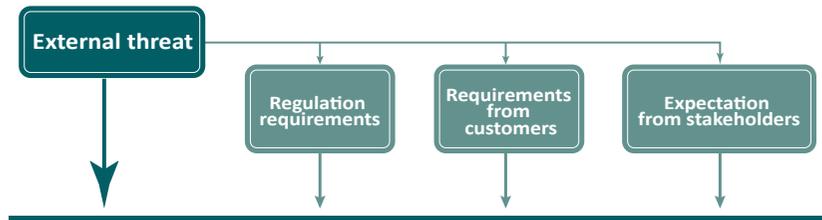
Sustainability is a key factor of consideration in supply chain management. We implement ISO 20400 sustainable procurement program, considering of cooperation strategy, procurement model, and geographical relationships to identify the risks of human rights, labor practice, environment, and fair operation practices inherent to the life cycle of mining, components manufacturing, assembly, and disposal, and as such implementation of our strategy for the sustainability of the environment, society, and governance to drive the sustainable transformation of the supply chain.



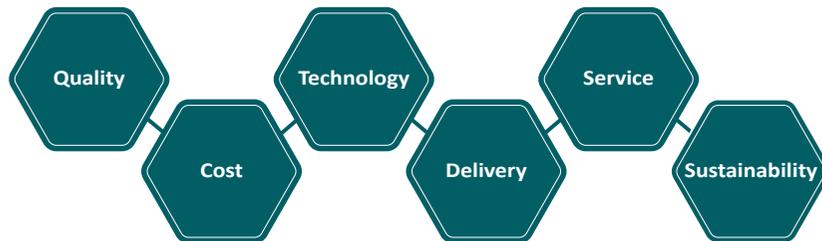
	Mining	Components manufacturing	Assembly	Disposal
<b>Human Rights</b>	<ul style="list-style-type: none"> <li>Responsible Minerals</li> <li>Forced Labor</li> <li>Child Labor</li> </ul>	<ul style="list-style-type: none"> <li>Forced Labor</li> <li>Child Labor</li> <li>Non-discrimination</li> </ul>	<ul style="list-style-type: none"> <li>Forced Labor</li> <li>Child Labor</li> <li>Non-discrimination</li> </ul>	
<b>Labor Practices</b>	<ul style="list-style-type: none"> <li>Health and Safety</li> </ul>	<ul style="list-style-type: none"> <li>Health and Safety</li> <li>Working Hours</li> </ul>	<ul style="list-style-type: none"> <li>Health and Safety</li> <li>Working Hours</li> </ul>	
<b>The Environment</b>	<ul style="list-style-type: none"> <li>Deforestation</li> <li>Wastewater</li> <li>Greenhouse Gases</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse Gases</li> <li>Wastewater</li> <li>Waste</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse Gases</li> <li>Wastewater</li> <li>Waste</li> </ul>	<ul style="list-style-type: none"> <li>Waste</li> </ul>
<b>Fair Operating Practices</b>		<ul style="list-style-type: none"> <li>Anti-bribery</li> </ul>	<ul style="list-style-type: none"> <li>Anti-bribery</li> </ul>	



ASUS sustainable procurement has been certified by the third party SGS, to prove that ASUS has implemented sustainability in its procurement policy and practice, and has been issued the world's first ISO 20400 certification with high rating, becoming a benchmark case of sustainable procurement. We will increase the proportion of sustainable procurement in the supply chain and increase the evaluation proportion of sustainability performance in the Quarterly Business Review (QBR) to build up a sustainable supply chain with the influence of ASUS' purchasing power.



ASUS Supply Chain Management Framework



### [ Case Study ] ISO 2040 Sustainable Procurement Certification

ASUS implements sustainable procurement and has successfully brought sustainability to the attention of the supply chain with the input of resources for sustainability management. For bolstering partnership and mitigating the impact of supply chain procurement on the environment:

- 100% responsible minerals came from qualified smelters
- 100% new suppliers received ISO 14001 certification



Percentage of suppliers received environmental certifications



Percentage of tantalum, tin, tungsten, and gold came from qualified smelters

Further to the consideration of quality, cost, technology, delivery, and service, sustainable procurement also entails the choosing of suppliers, continuous management, to reduce the impact on the environment and enhance the contribution of procurement to society and the economy as a whole.



## Supply Chain Management Strategy

According to the 2018 annual report of the Responsible Business Alliance (RBA), the primary risks confronting the electronic industry in sustainable development are labor, environment, and partnership. We have established our risk identification procedures in accordance with the RBA Self-Assessment Questionnaire, hazardous substances management, brand management, brand reputation, labor protection, continuous improvement, management system, and labor intensity. We use it to identify the risk level of more than 300 suppliers and outsourced service providers with an annual procurement amounting to NT\$2,500,000 and further determining a list of high-risk suppliers to conduct the onsite audits and provide supervisions.

We continue our efforts in engagement and cooperation with the external stakeholders on supply chain management issues, and actively participated in the RBA as a full member to demonstrate our ambition in supply chain management and promise to assume a larger share of responsibility as a producer. We utilize the RBA Code of Conduct and include PAS7000 and SA8000 to establish the ASUS Supplier Code of conduct, reinforcing our protection of young and female labor, and lead the suppliers to share the corporate social responsibility under the full-range management framework to create a sustainable supply chain.

## The Supply Chain Management Process

The management consists of three phases: new supplier approval, continuous risk management, and performance evaluation. The targeted suppliers cover tier 1 product assembly, tier 2 component manufacturing, and tier 3 mining of raw material.



### Phase 1: New Supplier Approval

The entrance barrier for becoming ASUS' qualified suppliers are: possessing ISO 9001 and ISO 14001 certifications, signing the compliance declaration, and passing the audits on Quality, Hazardous Substance Free (HSF), and Corporate Social Responsibility (CSR).

### Phase 2: Continuous Risk Management

We manage suppliers with continuous business relations by risk level. Suppliers classified as high risk will be subject to onsite audits by ASUS and the third party. Suppliers classified as moderate to low risks will be audited by document review. All suppliers must complete the annual survey on responsible minerals, greenhouse gas, water footprint, and waste. The potential risks of the suppliers in labor, health and safety, environment, and ethics are managed through audits to avoid posing an impact on governance, the environment, and society, which in turn affects the operation of the supply chain.

### Phase 3: Performance Evaluation

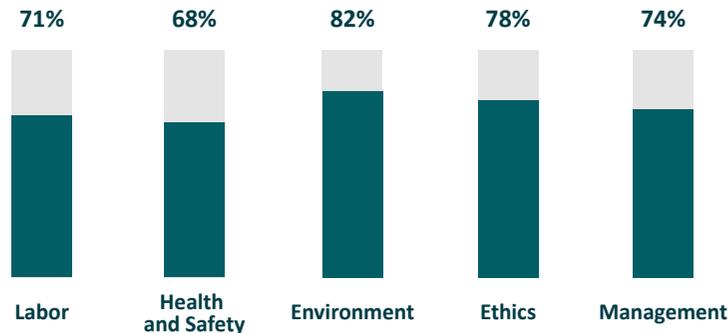
Besides the quality, cost, technology, delivery, and service, we also includes sustainable indicators such as ethics, environmental protection, labor rights and health and safety for the QBR as an important basis to allocate orders and determine whether to continue the partnerships; suppliers with good performance will be given more resources. ASUS uses its influence to drive the supply chain for continuous improvement.



## Sustainable Performance in Supply Chain

### Labor Rights Protection

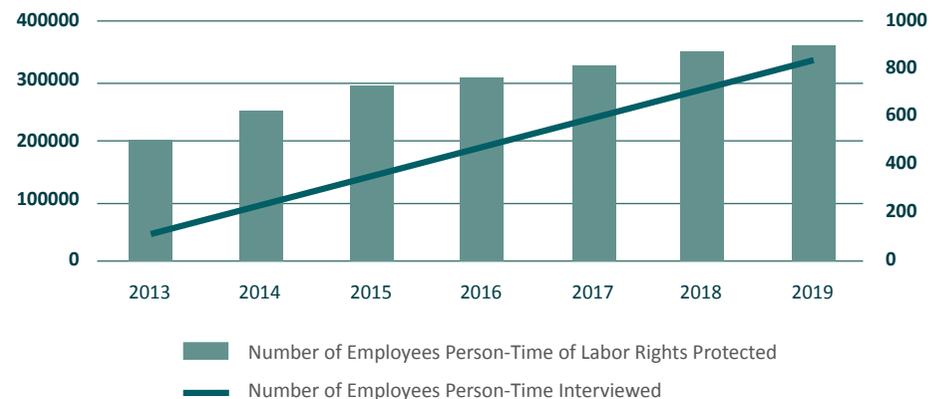
Through performing audits, ASUS ensures that suppliers meet the requirements of the management strategy regarding labor rights protection, occupational hazards prevention, and environmental protection. We identify a list of high-risk suppliers for auditing based on factors such as special labor employment, labor intensity in production lines, and environmental management, with supplier categories such as labor intensive outsourcers, mechanisms, monitors, motherboards, power supply, and battery. In 2019, a total of 20 onsite audits were performed. The total number of findings identified was 284, and the average passing rate was 75%. The audit results showed that the largest number of findings was in the health and safety:



We launched seminars to help the suppliers correct the findings by working with the third party to provide best practices and establish a communication platform for experience sharing. All findings were corrected, and the high risk in working hours was reduced to low risk identified by RBA.

Dimension	Priority Findings	Improvement Plans
 Labor	Weekly working hours exceeded 60 hours; worked for 7 consecutive days.	Monthly reporting on working hours; proper allocation of human resources; enhancing the labor awareness.
 Health and Safety	Insufficient personal protection equipment for positions in special manufacturing process.	Immediate correction required by purchasing sufficient protection equipment within one month.
 Ethics	Did not develop sustainable procurement in the supply chain management.	The standard of selecting new suppliers included considerations such as labor, health and safety, and the environment.

Under the continuous audits over these years, more than 800 employees person-time were interviewed, and the labor rights of 360,000 employees person-time were protected.





## Responsible Minerals Procurement

The findings of a survey conducted by Responsible Mineral Initiatives (RMI) indicates that the rebel groups in the Democratic Republic of Congo and adjoined countries adopt forced labor, child labor, and other illegitimate means in mining for minerals such as tantalum, tin, tungsten, and gold (3TG) and sell these minerals in exchange for weapons, which eventually cause regional disturbances. Four minerals harvested from illegal operations are called conflict minerals.

Tantalum, tin, tungsten, and gold, which are necessary materials for the functional operations of electronic products, are commonly used in resistor, inductor, CPU, hard disks, memory, motherboards, and connectors. ASUS is a brand that stands for human rights and environmental protection; as such, ASUS has a social responsibility to avoid the use of conflict minerals. To meet this responsibility, the ASUS Responsible Mineral Sourcing Policy was formulated which establishes a set of measures and has required suppliers to procure metals from qualified smelters to avoid illegal mining, which leads to human trafficking, arms coercion, child labor abuse, and ecological damage.

ASUS implements measures based on the Organization for Economic Co-operation and Development (OECD) Due Diligence Guidance:

With the implementation of the qualified smelters conversion plan over the years, the percentage of 3TG sourced from qualified smelters has been significantly improved from 22% in 2013 to 100% in 2018. We will continue the investigation of due diligence and maintain our partnership with the suppliers for assurance of achieving the procurement of responsible minerals. This result also constitutes the success of ASUS in minerals management whereby more than 40,000 child labors in Africa were avoided being employed in illegal and hazardous operations.

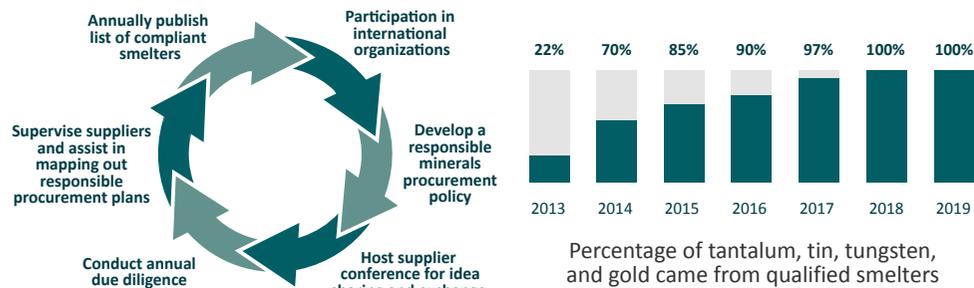
We conducted analysis on the distribution of qualified smelters. They are located mainly in Asia and Europe, and none are located in known conflict regions.



One-third of the world's cobalt comes from the Democratic Republic of Congo and the nearby regions, and thus it was listed as the fifth conflict mineral by Responsible Minerals Initiative (RMI) in 2019.

Cobalt is the key material to manufacture the battery. ASUS also includes cobalt into the management of responsible mineral procurement and conducts annual due diligence investigation. Considering that the number of qualified smelters for cobalt at this stage has not been popularized, in order to avoid the outages, ASUS develops a five-year conversion plan which requires suppliers to increase the proportion of cobalt purchased from qualified smelters and reach 100% by 2025.

Besides, when performing the stakeholder engagement, we realize that some countries have employed child labors with low wages for engaging in illegal operations of mica mining, which has emerged as an issue that attracts the attention of human rights organizations. Mica is the main material of paint, and is mostly used for the external part of electronic products. For the mining of mica brings risk in the supply chain management, we continue to pay attention to the management requirements of mica by international organizations and will communicate with the supply chain in a timely manner.





## Reduction of Environmental Footprints

We start with 3 dimensions: hazardous substance management system, component approval and supplier management system, and manufacturing process control system, to ensure our products meet the management strategies of the safe chemical substance policy through auditing. We identify a list of high-risk suppliers for auditing based on factors such as component recognition anomalies, no independent detection capabilities, non-RoHS manufacturing process management, with supplier categories such as outsourcers, mechanisms, monitors, packaging, and power supply. The total number of findings identified was 143, and the average passing rate was 88%. The audit results showed that the largest number of findings was in the component approval and supplier management system. All findings were corrected, and the average passing rate for each dimension is shown in the following table:

Dimension	Priority Findings	Improvement Plans
<p><b>90.3%</b></p>  <p><b>Hazardous Substance Management System</b></p>	Fail to meet ASUS' latest requirements on hazardous substance management	Regularly update on ASUS' latest requirements to include them into the documents
<p><b>85.7%</b></p>  <p><b>Component Approval and Supplier Management System</b></p>	Fail to perform hazardous substance management audit on upstream supplier	Develop a supplier audit mechanism for hazardous substances
<p><b>86.3%</b></p>  <p><b>Manufacturing Process Control System</b></p>	Fail to realize internal testing on hazardous substance management	Establish internal monitoring and reporting mechanism

### Greenhouse Gases, Water, and Waste management

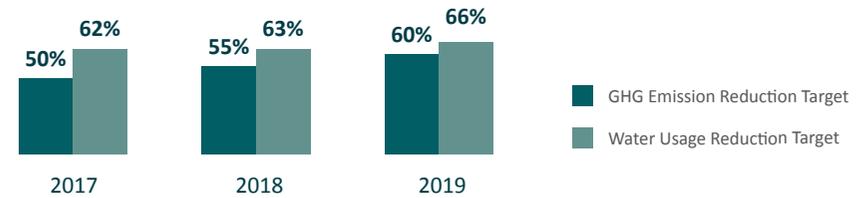
We follow the "Corporate Value Chain (Scope 3) Accounting and Report Standards" and "Carbon Disclosure Project - Water Disclosure" to conduct annual inventories with suppliers having continuous business relationships.

The key performances in 2019 were as follows:

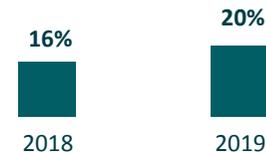
- Energy and Resource Emission and Usage:

Total Greenhouse Gas Emission	Total Water Consumption During Manufacturing Process	Total Industrial Waste
28 million metric tons CO <sub>2</sub> e	14 million cubic liters	28 million metric tons

- Proportion of suppliers with greenhouse gas emission and water usage reduction targets increase gradually:



- The proportion of suppliers using renewable energy increased from 16% in 2018 to 20% in 2019. The type of renewable energy was solar energy:



- Suppliers had commissioned qualified waste treatment plants to handle industrial waste, and the test data of wastewater was in compliance with legal requirements.



- ▶ Compliance rate of industrial waste management process
- ▶ Compliance rate of quality of wastewater



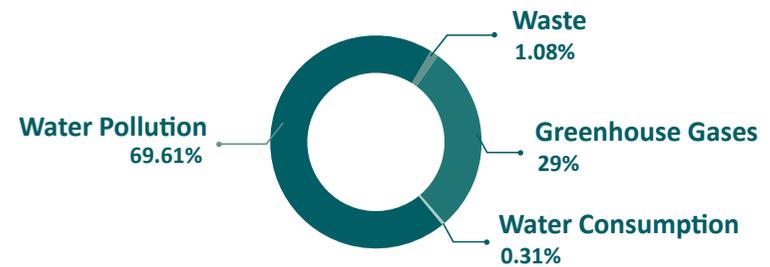
- To fulfill the commitment in the Greenhouse Gas Reduction, we execute the following measures of management:
  - ▶ Provide a priority list of suppliers showing good environment practices, such as receiving ISO 50001 energy management system certification and using of renewable energy, to the procurement unit.
  - ▶ Set the greenhouse gases science based target (SBT) for 90% of suppliers by annual spend, and review the reduction performance year by year.

### ● Environmental Profit and Loss Program (EP&L)

In the past, the evaluation of the environmental impact from operations such as carbon emissions and waste disposal could only be measured in terms of greenhouse emission or weight of waste. This kind of expression is meaningful only to those who have the related knowledge background but not for the public, investors, or managers who have no knowledge of chemical and physical units where they cannot ascertain if the environmental impact is serious or not. Through environmental profit or loss assessment, the impact on the environment is translated into monetary value. Examples are the cost of loss on agriculture and ecology caused by climate change due to greenhouse gases. This makes different forms of impact become comparable, and can indicate if the operation process has caused a net loss or net gain to the environment. Internally, it provides an important information for decision-making in future product development and supply chain management strategies, and externally, it can use simple language to communicate with stakeholders about ASUS environmental performance.

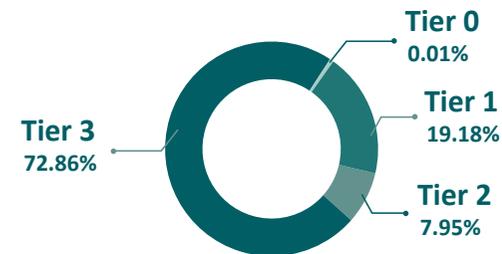
We launched the environment profit and loss program in 2017 with notebook computers as the pilot product. In 2019, the program was extended to product lines contributing 90% of the revenues, including: notebook computers, desktop computers, cell phones, motherboards, and monitors. We selected 4 environmental impact indicators including greenhouse gases, water consumption, waste, and water pollution by the specific nature of the production process to calculate the monetary value of the environmental impact from the mining of raw materials, manufacturing of components, product assembly, and ASUS operation, which totaled approximately US \$5.78 million.

According to the analysis, water pollution had the largest impact among all environmental aspects, followed by greenhouse gas emission, and water consumption the least. The details were as below:



Further analysis led us to realize that motherboard products caused a significant impact on the environment in terms of the indicator of waste, which exceeds the environmental impact brought by other products.

For the analysis of the impact on the supply chain, tier 3 mining of raw material was the largest, followed by tier 1 product assembly, and tier 0 ASUS operation the least. The detailed was as follows:



ASUS identified the environmental impacts and the supply chain management hotspots and further formulated the followings:

- Since 2019, new suppliers have to possess ISO 14001 certification, and by 2025 all suppliers have to possess ISO 14001 certification
- Suppliers need to set GHG reduction target and water usage reduction target by 2020
- Suppliers need to set waste reduction target by 2021



## Strengthen Partnership

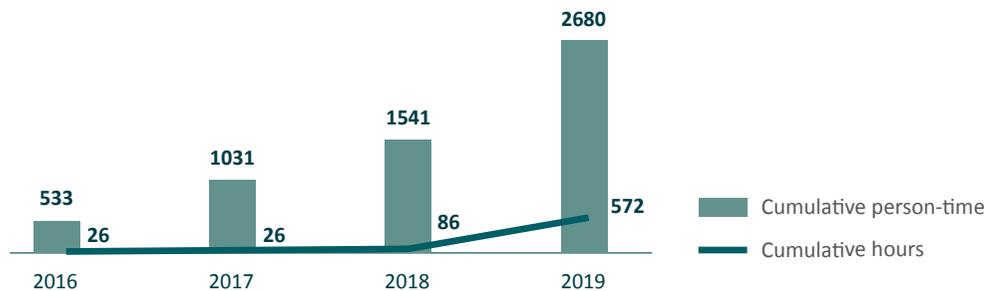
### ● Engagement and Communication

To enhance suppliers' awareness of sustainability issues and their ability to respond to risks, ASUS organizes supply chain conferences and training for individual suppliers on a regular basis to convey its management requirements in the interests of further deepening the partnership with the supply chain.

In 2019, the supply chain conferences were held in Taipei, Shenzhen, Suzhou, and Chongqing, and all ASUS' qualified suppliers were invited. With "ASUS 2020 Sustainability Goals" as the theme, ASUS' sustainable management strategies were conveyed, including 3 subjects, namely corporate sustainability, green products, supply chain management. Short-, mid-, and long-term goals were announced, and suppliers are invited to achieve these goals with ASUS. In addition, ASUS invited the third party consultant to present sustainability topics such as carbon management trends and challenges, and the application of big data to manage hazardous substances.



The supplier conference and training have benefited accumulatively a total number of more than 2,600 employees person-times and a total number of more than 570 hours:



### ● Supervision Project

ASUS holds quarterly counseling meetings to assist suppliers to correct findings by inviting third party RBA qualified auditors to analyze the causes of the findings and share outstanding cases, as well as to enhance supplier management awareness and counsel manufacturers to improve their abilities. In addition to the meetings, we also establish a WeChat Group with the suppliers under supervision for the timely sharing and exchange of information.

### ● Online Courses

To encourage our suppliers to receive ISO certification and be familiar with the RBA Code of Conduct, we prepare online courses (in Chinese) available at [CSR website – Online Learning](#). The courses include:

- ISO 14001 Environmental Management System
- ISO 45001 Occupational Health and Safety Management System
- IECQ QC 080000 Hazardous Substance Process Management System
- Introduction to RBA organization, and the requirements of five dimensions in CSR management: labor, health and safety, environment, ethics, management system

Through various promotions, courses have been viewed more than 300 times. We will continue to produce more online learning resources to help strengthen supplier sustainability management.