

# **Gultech Sustainability Report 2023**

**Gultech Technologies**

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PCB

# About Gultech



- Gultech is a high-tech enterprise mainly engaged in the design, research and development, and production of circuit boards for automotive electronics, computer and peripheral devices, communication modules, and other products.
- Our leading product is ultra-fine printed circuit boards for automotive electronics. We have become a leading technology, high-end product, and high-precision equipment R&D and production base for circuit boards in the domestic automotive electronics industry.
- We are the world's top supplier of electronic engine control, power control modules, anti lock braking systems, speed control, packaging carrier boards, smartphone boards, camera module products, and software and hardware integrated products.

**Gultech Jiangsu Plant I**



**Gultech Jiangsu Plant II**



**Gultech Suzhou**



# Company history



**1984**

Data General, USA  
Started operations as a  
captive shop supporting  
Asia pacific

**1988**

Gul Technologies Singapore  
Pte Ltd was founded via  
Management Buy-out

**1997**

Listed on the Stock  
Exchange of Singapore  
Dealing and Automated  
Quotation System

**1999**

Factory Completion  
for Gultech Suzhou

**2004**

Factory Completion  
for Gultech Wuxi

**2014**

Factory Completion for  
Gultech Jiangsu

**2022**

Gultech Jiangsu  
merged with  
Gultech Wuxi

# PCBs for demanding customers



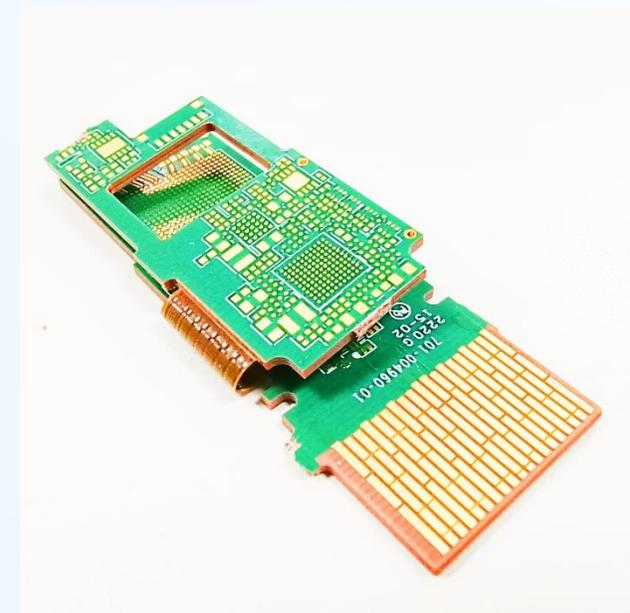
Gultech is a leading PCB manufacturer for various application. Our mission is to be a world-class, one stop solution provider in the design and manufacturing of Multi-layer, high density and Rigid-flex PCB that best meet the needs of our customers.

## PCB IS A SMALL BUT CRITICAL PRODUCT

All electronic products comprise a printed circuit board (PCB). The car you drive, the plane you travel on or the medical health care instrument which check your body. The best PCB is only developed under close communication with our customers and produced under our intelligent and advanced processes. We also provide efficient logistics, on-time deliveries and guarantee the whole manufacturing process is conducted in a manner not only fulfils customers' need, but also meet Gultech's sustainability requirements.

## PCB TECHNOLOGY TRENDS

Nowadays several technology trends are driving the PCB applications. Auto driving and Artificial intelligence drive a higher level of human-computer interaction for car driving. With the development of new technology, PCB is becoming smaller and more complicated. Gultech will firmly follow the technology development and customer requirements to develop our new technologies.



## GLOBAL AND GROWING COMPANY

Gultech is a global company whose headquarter is located in Singapore. We grow together with our customers, include new technology exploration, new market developing.

## OUR VALUES

- Quality first
- Customer focus
- Engagement of people

# Our business 2023



**Sales Turnover**  
**377 MUSD**

**Delivery on Time**  
**100%**

**Quality Performance**  
**29 DPPM**

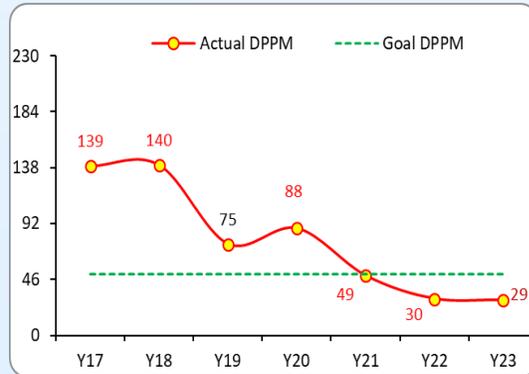
**Sustainability Audited Supplier**  
**100%**

# Sustainability highlights 2023



## 29 DPPM

Quality Performance from Customer Feedback



## 43%

Female Employees

## Wuxi Worker Pioneer



## 8.1

Customer Satisfaction score

## Most Influential Enterprise

## Reward of Labor Protection



## 95.5%

Employee Satisfaction Rate

## 100%

Sustainability Audited Key Suppliers



# CEO's statement



Climate change is a common challenge facing all humanity. It not only changes and affects the global ecosystem and natural environment, but also has a profound impact on global economic development, especially requiring low-carbon economic development for enterprises.



## **MITIGATION & PREVENTION FOR CLIMATE CHANGE**

In order to fulfill low-carbon economic development, Gultech has started to calculate the greenhouse gas emissions linked to our business throughout the whole value chain. Now we have a clear picture about the climate impact, we will implement two major strategies of mitigation and prevention. Mitigation refers to seeking new technologies as much as possible, such as recycling existing energy, fully improving energy utilization efficiency, and reducing existing carbon dioxide emissions. Prevention refers to designing energy-saving energy and using energy-saving equipment as much as possible from the design stage to reduce the generation of greenhouse gases. We must work closely with our customers from the very beginning of their projects, therefore to set emission reduction targets in line with 1.5 degree target of the Paris Agreement.

## **HIGHLY ENGAGED EMPLOYEES**

Our success would not have been possible without the dedication of our highly engaged and competent employees. We are making progress in our sustainability work thanks to the commitment and hard work from everyone in the organization, and for this we are sincerely grateful. Now, we are looking forward to continuing our sustainability journey together with our suppliers, employees and customers. We are committed to offering competitive, high quality and technically advanced PCBs, which are sustainably produced.

Looking ahead, our transformation has only just begun. Acting responsibly, in line with our employees, suppliers and customers, is the only way we can be a truly sustainable company. We are committed to continue focusing on social and environmental sustainability, even when times are difficult. And we firmly believe that the actions we take in these areas are efficient for the successful development of Gultech. Now we have built strong partnership and look forward to overcoming future challenges together.

# Gultech's sustainability milestone

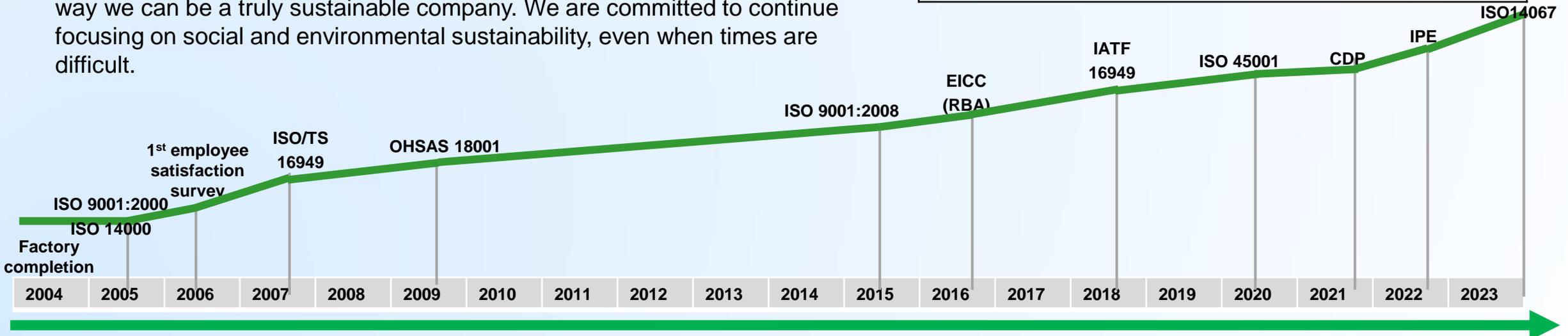


The world is currently facing many disasters, geo-political and environmental challenges. We are aware that our growth and the related challenges place enormous demands on our employees. We thank our employees for their untiring commitment and dedication.

Our partners also include the representatives of all global frameworks to which we are committed, such as the Responsible Business Alliance (RBA), the Responsible Minerals Initiative (RMI), the International Organization for Standardization (ISO), Trusted Information Security Assessment Exchange (TISAX), the Sustainable Development Goals (SDGs) of the United Nations, Carbon Disclosure Project (CDP) and Institute of Public & Environmental Affairs (IPE).

Looking ahead, our transformation has only just begun. Now we have built strong partnership with our suppliers and customers, and we firmly believe that acting in line with our suppliers and customers responsibly is the only way we can be a truly sustainable company. We are committed to continue focusing on social and environmental sustainability, even when times are difficult.

<b>RBA</b> (Responsible Business Alliance)	
<b>RMI</b> (Responsible Minerals Initiative)	
<b>ISO</b> (International Organization for Standardization)	
<b>TISAX</b> (Trusted Information Security Assessment Exchange)	
<b>SDGs</b> (Sustainable Development Goals)	
<b>CDP</b> (Carbon Disclosure Project)	
<b>IPE</b> (Institute of Public & Environmental Affairs)	



# Business sustainability



We use the value chain approach to identify opportunities to drive positive changes and minimize negative impact.



## Sales & Design support

- In the design phase, we provide some solutions to customers, include design optimization, apply material which has stable performance to reduce scrap pollution.
- Always keep high level service and consolidated partnership with customers.



## Production

- During production, we focus on various topics, such as working conditions, health and safety, resource efficiency, product quality, related to conflict minerals used, chemical handling, handling of waste and recycling.
- Pay high attention to quality, social accountability and environmental responsibility.



## Our employees

- To create an active culture, we focus on ethics, equal treatment, diversity, high engagement and happy and healthy working environment.



## Transportation

- Only for urgent shipments, we apply air freight.
- To reduce emission, we plan to reduce production lead time and find more efficient logistics solutions.



## Product application

- High quality and stable reliability are key factors for product application.
- Also stock control, claims handling by vehicle and end product waste handling are other important sustainability fields.



## Waste/Recycling

- All waste handling and recycling are disposed of according to local government regulations.

# Gultech sustainability strategy



Customers	<ul style="list-style-type: none"><li>• Customer satisfaction survey</li><li>• Performance review meetings</li></ul>
Production	<ul style="list-style-type: none"><li>• Improvement &amp; sustainability meetings</li><li>• Follow ups</li><li>• Various audits</li></ul>
Employees	<ul style="list-style-type: none"><li>• Engagement survey</li><li>• Satisfaction survey</li><li>• Performance and development appraisal</li></ul>

## Sustainability strategy and goals

Gultech's sustainability strategy defines our long term goals and actions to meet customers' expectations. Under its guidance, our sustainability project is kept on the right track.

We are committed to drive sustainability project throughout the value chain together with our customers and suppliers to meet sustainability goals. For each focus areas, we will build long term objectives, KPIs and performance targets. Gultech's sustainability strategy is reviewed and approved by Gultech's management team and reported yearly.

### CLIMATE ACTIONS IN FOCUS

Due to obvious climate changes, sustainability development become an important global topic. Gultech of course has responsibility to manage topics related to climate change to ensure whole society work sustainably. We will work tightly with our customers and suppliers and aim to reduce greenhouse gas emissions in line with the 1.5 degree target of the Paris Agreement. We have identified and calculated emissions in Gultech's own production (scope 1 and 2) and in our value chain (scope 3). Key areas to reduce GHG in our production are energy utilization efficiency improvement, energy saving equipment, solar energy, high performance and more efficient materials application, and etc.

### ENVIRONMENTAL AND SOCIAL GOALS

We focus on safe working environment, equal treatment, human rights and labor rights during our production. In addition, we also focus on our suppliers' environmental performance. By building strong partnership with suppliers, we are committed to offering competitive, high quality and technically advanced PCBs which are also produced sustainably.

### WASTE MANAGEMENT

Reduce the amount of waste produced through pollution prevention practices and to divert waste from the landfill through recycling and reuse. We characterize, track, and manage the chemical, electronic, and other regulated waste generated onsite and through final disposition.

# Gultech sustainability strategy



Together with our suppliers, employees and customers, we aim to create a more sustainable company with growth and profit for all. We believe that strong relationships is key to achieving these targets.

Value chain	Category	Focus areas	Long-term goals
<b>SUPPLIERS</b> Take responsibility throughout supply chain	Social	<ul style="list-style-type: none"> <li>Human rights &amp; Labor rights</li> <li>Health &amp; Safety</li> </ul>	<ul style="list-style-type: none"> <li>Zero human rights violations</li> <li>Full compliance of human rights legislation and Code of Conduct</li> <li>Zero high consequence work-related injuries</li> </ul>
	Environment	<ul style="list-style-type: none"> <li>Energy efficiency &amp; Renewable energy</li> <li>Resource efficiency</li> <li>Waste management</li> <li>Climate impact</li> </ul>	<ul style="list-style-type: none"> <li>Increase energy efficiency in PCB material production</li> <li>Renewable energy in PCB material production</li> <li>Environmentally appropriate material used in production and in products</li> <li>Increased circularity</li> <li>Reduce total GHG-emissions (scope 1-3) in accordance with the 1.5 degree target of the Paris Agreement</li> </ul>
<b>GULTECH</b> Engage the best people and adopt the most sustainable energy and machine	Social	<ul style="list-style-type: none"> <li>Wellbeing &amp; Work-life balance</li> <li>Equal opportunities for everyone</li> <li>Employee satisfaction and engagement</li> </ul>	<ul style="list-style-type: none"> <li>Top scores in employee satisfaction and engagement</li> <li>Gultech recognize as the most attractive employer within the electronics industry</li> </ul>
	Environment	<ul style="list-style-type: none"> <li>Business travel</li> <li>Energy efficiency &amp; Renewable</li> <li>Waste management</li> <li>Climate impact</li> </ul>	<ul style="list-style-type: none"> <li>Reduce emissions from company cars and business travel</li> <li>Renewable energy in offices and internal warehouses</li> <li>Reduce total GHG-emissions (scope 1-3) in accordance with the 1.5 degree target of the Paris Agreement</li> </ul>
	Governance	<ul style="list-style-type: none"> <li>Ethics</li> <li>Transparency</li> </ul>	<ul style="list-style-type: none"> <li>Robust risk management and governance, including all relevant categories of risks</li> </ul>
<b>CUSTOMERS</b> Steer PCB field in a green direction	Environment	<ul style="list-style-type: none"> <li>Sustainable product development</li> <li>Sustainable product offering</li> <li>Transportation</li> </ul>	<ul style="list-style-type: none"> <li>Leadership in sustainable PCBs</li> <li>Increased awareness of sustainable PCBs among customers</li> <li>Customers choose environmentally-friendly transportation alternatives</li> <li>Reduce total GHG-emissions (scope 1-3) in accordance with the 1.5 degree target of the Paris Agreement</li> </ul>

# Gultech sustainability strategy



## SUSTAINABLE DEVELOPMENT GOALS

Gultech's sustainability strategy is linked to the Sustainable Development Goals (SDGs), with the main contribution being to 10 out of the 17 goals (see page 14 & 15). In the strategy we illustrate how our prioritized sustainability areas is connected to the SDGs. The Global Goals, and its targets, serves as an important guide to develop our business in line with the direction the world needs to go to build a better future for everyone.

## SUSTAINABILITY GOVERNANCE

The sustainability strategy is governed by the Gultech Group management team, with a clear division of responsibility for the different focus areas. The Group Sustainability Manager is responsible for driving the overall sustainability work, such as sustainability strategy, policies and goals. Working in a responsible and sustainable way is a responsibility that all our employees take on. Sustainability is integrated into our business and processes, with each process owner responsible for activities and for reporting on the progress made towards achieving their set goals. Sustainability performance is monitored monthly and discussed at management team meetings.

Gultech quality VP is responsible for the quality management system and sustainability management representative, while Gultech Group are ISO9001 and ISO14001 certified to ensure all our processes are unified and of the highest quality. Gultech's sustainability work is also based on ISO45001, an international standard that provides guidance on how businesses may operate in a healthy way.

CEO is responsible for ensuring that sustainability is on the agenda. Since sustainability is an integral part of Gultech business, sustainability matters are discussed continuously.

Sustainability Risks		
Type of risk	Description	Management
Environment	Gultech's main environmental risks arise from the PCB resource use, chemicals and waste management, emissions to water and air, and contamination of soil. Another main area is transportation caused by delivering to customers. Gultech primarily uses air transportation as customers place high demands on quick deliveries.	Gultech has clear policies governing environmental work and assessing the risks and impact. Gultech complies with local environmental regulations and the RoHS and REACH directives. Gultech maintains close dialogue with customers about how the PCB can reduce its environmental impact in the design phase. Gultech offers various transport alternatives (air, sea, rail, road), all with a different impact on the environment.
Human rights	As a labor intensive enterprise, Gultech can be exposed to challenges involving human rights. Gultech operates in accordance with ISO45001 Occupational Safety and Health System.	Gultech applies a RBA that encompass suppliers and employees, that include support and respect for human rights. In addition, Gultech has zero tolerance towards discrimination and harassment.
Social conditions	Shortcoming in work environment, health and safety, labor and work conditions may have adverse implications at an individual and company level.	Gultech applies RBA that encompass suppliers and employees. A whistleblower function is available on Gultech's website, where any misconduct can be reported.
Corruption	Corruption is present in all countries and industries. Gultech is exposed to ethical risks in our operation, including corruption, business ethics and bribery.	Gultech applies RBA that encompass suppliers and employees. A whistleblower function is available on Gultech's website, where any misconduct can be reported.

# Gultech sustainable development goals



# Gultech sustainable development goals



# Our responsibility in supply chain



We work closely with our key suppliers to improve work and safety conditions and environmental responsibility.

## COMMITMENT:

- 100% sustainability survey key suppliers
- Continuously improve sustainability weak points of key suppliers

## NEW TARGETS FROM 2023:

- Improve green electricity application
- Improve energy efficiency
- Increase renewable energy usage
- Increase environmentally friendly materials' application
- Increase recycle and re-use materials
- Require key suppliers to calculate CCF scope 1 & 2 & 3
- Require key suppliers to calculate PCF

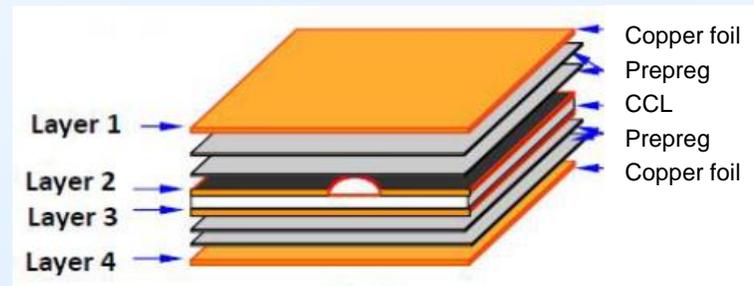


# Our responsibility in supply chain



## HIGH REQUIREMENTS IN THE QUALIFICATION PROCESS

The key suppliers of PCB fabrication are CCL, Prepreg, copper foil and chemicals suppliers. We define high requirements for key suppliers to be qualified.



- Be ISO 9001 certified
- Be ISO 14001 certified
- Be ISO 45001 certified
- Be QC 080000 certified
- Report on conflict minerals according to RMI
- Sign code of conduct agreement which is aligned with RBA
- Follow RoHS, REACH requirement
- Follow local regulations covering social compliance and environmental impact

## MONTHLY PERFORMANCE MONITOR FOR KEY SUPPLIERS

For key suppliers, we monitor its performance through below KPIs to ensure continuous improvements.

- Quality performance scored by our SQE which include LAR (lot acceptance rate, target 100%), incidents, incidents reaction time and etc.
- Technology performance scored by our engineering team
- Service, delivery, price performance scored by our sourcing team
- Social responsibility performance scored by Code of Conduct regulation and local regulation which include human rights, working conditions, health and safety, environment and business ethics.

## REGULAR AUDITS FOR KEY SUPPLIERS

For key suppliers, apart from monthly performance monitor, we also conduct yearly onsite audit following qualification criteria to get clear picture of suppliers' capability. By listing findings and verifying following up actions, suppliers could be kept continuously comply with all requirements defined by regulations and certifications. In 2023, all key suppliers were conducted yearly audit. We will conduct yearly audit for key suppliers in 2024.

# Our responsibility in supply chain



## CSR(Corporate Social Responsibility) AUDIT CHECKLIST

### LABOR

Employees mostly concerned human rights are listed as below and we tightly demand suppliers to comply with these human rights to provide reliable working environment.

- Do not hire any forced labor, service personnel, or bonded labor, and do not enslave or sell labor.
- Employees enjoy basic freedom, including the freedom to choose and use medical equipment outside the company.
- Do not use child labor at any stage of production (under the age of 16).
- There are appropriate written procedures for specifying, managing, and controlling work hours, including overtime.
- Provide social insurance in accordance with legal regulations, and do not delay or detain employee wages.
- Any discrimination is not allowed.
- Not to treat employees cruelly and inhumanely, including any form of sexual harassment, abuse, corporal punishment, mental or physical oppression, or verbal abuse; Nor shall they threaten to engage in any such behavior.
- Sign labor contracts in accordance with legal requirements and comply with local labor regulations.

### HEALTH & SAFETY

Everyone has the right to enjoy a safe working environment. During Gultech yearly CSR audit to key suppliers, we clearly check suppliers below matters related to health and safety.

- Clearly assess affecting health and safety factors, and take corresponding actions to manage the factors.
- Available personal protective equipment and supervise well-dressed or worn.
- Adequate fire detectors and fire extinguishers.
- Adequate emergency exit and regularly to conduct emergency evacuation drill.
- Chemicals are well stored and clearly define the scope of contact with chemicals, and train how to use and deal with chemicals.
- All canteen employees are qualified by medical certification, and be trained how to prevent infectious diseases.

# Our responsibility in supply chain



## CSR(Corporate Social Responsibility) AUDIT CHECKLIST

### ENVIRONMENT

Gultech set environmental requirements for key suppliers which cover water, chemicals, greenhouse emissions and waste management.

- Obtain the required environmental permit or pollution discharge permit and comply with the requirements of the permit
- The responsible person is clearly aware of the requirements for waste disposal, labeling, storage, use, transportation, and disposal.
- Divide storage areas for specialized chemicals and waste products and keep maintaining.
- Hazardous chemicals should be labeled appropriately and relevant responsible persons should be trained to understand how to protect personal health and safety when using hazardous chemicals.
- Suppliers who classify, handle, store, and transport hazardous chemicals must obtain permission from local regulations.
- Monitor gas emissions, identify, monitor, monitor, and handle volatile air emissions in accordance with legal and regulatory requirements before emission.
- Identify the sources of material energy and greenhouse gas emissions, measure and record materials in accordance with REACH and RoHS.
- Establish energy consumption and greenhouse gas emission procedures, track the types and total amount of energy consumption.

### ETHICS

Not only employees' ethics matters are critical, social matters related to ethics are also significant. Thus key suppliers must build regulations and actually follow regulations to protect all areas of ethics.

- Establish business ethics standards and ensure that managers, supervisors, and employees are aware of these standards through interviews.
- The company keeps confidential the personal information of all individuals with business dealings, including suppliers, customers, consumers, and employees.
- The company provides appropriate channels for employees to secretly report improper behavior within the company.
- Do not falsify records and make false statements about situations or operations in the supply chain.
- Conduct regulatory reviews on the source and supply chain of minerals, and develop policies to ensure that minerals such as tantalum, tin, tungsten, gold, and cobalt contained in manufactured products are not directly or indirectly purchased from the Democratic Republic of Congo or its surrounding countries/regions.

# Our responsibility in supply chain



## CSR(Corporate Social Responsibility) AUDIT CHECKLIST

### MANAGEMENT SYSTEM

Suppliers need to be well managed under comprehensive system by defining various procedures.

- The organization is committed to complying with regulations and committed to continuous improvement.
- Develop a set of risk assessment and risk management procedures that are suitable for the scope and type of company's operations, including environmental protection, health and safety, labor and ethics.
- Develop appropriate EHS performance goals, indicators, and implementation plans, including the regular evaluation of performance based on these goals.
- Clearly and accurately communicate EHS policies, labor and ethics policies, performance, practices, and expected goals to employees.
- Labor and ethics audits comply with legal requirements, customer requirements, and other requirements.
- EHS audits can demonstrate that the company meets legal and regulatory requirements, as well as customer and other requirements (such as ISO 14001, OHSAS 18001).
- The suppliers should ensure that its suppliers and subcontractors are able to comply with the requirements of social responsibility within their control and influence.

### Findings

During 2023 regular audits for key suppliers, there are some minor findings, no critical findings. Critical findings are findings related to absence of policies or forced labor or child labor.

- Labor: Exceed working hours
- Health & Safety: Some operators didn't wear enough protective tools when dealing with chemical solution.
- Environment: Some non-hazardous chemical waste disposal is not well managed.

### Follow up

All minor findings are required to provide corrective actions within 2 weeks. All critical findings must be followed as soon as possible and closed no more than 6 months. All findings must be regularly tracked and verified during next audit.

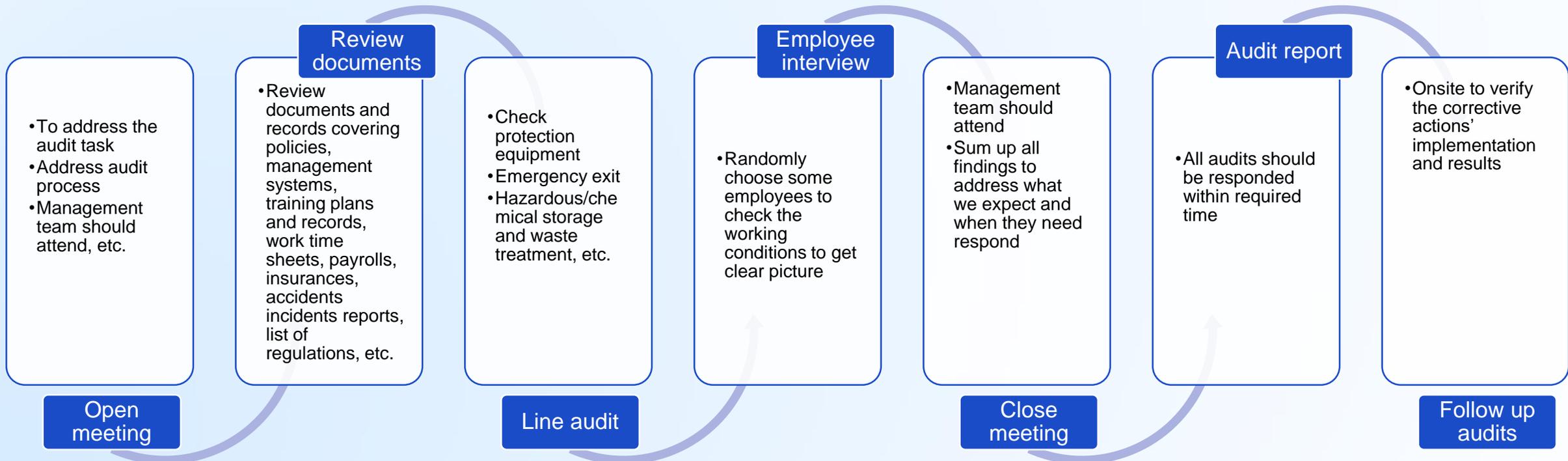
We want to go forward together with our suppliers. We target to have long-term and trustful relationships with our suppliers and give support on developing suppliers' compliance to help suppliers go forward sustainably.

# Our way of conducting audits

## Audit process in brief

Normally it takes at least one day to finish all sustainability audit. Every yearly audit is conducted by a template covering 5 parts.

- Labor
- Health & Safety
- Environment
- Ethics
- Management system



We are firmly aware that employees are our primary asset, so we provide various types of training for their career development to help them master various skills. By this way, the company could also be developed in a healthy and sustainable way.

## **COMMITMENT:**

- High level employee satisfaction
- Corporate culture of quality first, courage to admit mistake, keep up with the times, strive for excellence
- Team spirit of mutual cooperation and mutual achievement
- Keep a continuous learning environment

## **NEW TARGETS FROM 2023:**

- Increase green electricity application
- Increase energy efficiency
- Increase renewable energy usage, include office & internal process
- Increase environmentally friendly materials' application
- Increase recycle and re-use materials (Copper/Tin/Routing bit)
- Calculate CCF scope 1 & 2 & 3
- Calculate PCF
- Reduce business trips, transportation greenhouse consumption



# Gultech- Employee



## REMEMBER TO IMPROVE EMPLOYEES' SKILLS WHILE DEVELOPING

All employees will receive onboarding training, regular and irregular on-the-job training, and special skills training to ensure the steady growth of the company. In addition, the company regularly holds technical seminars to share advanced technology summaries, in order to cultivate a cultural atmosphere of mutual help and mutual assistance. With the development of new technologies, our company also provides external public training for professional talents to ensure that the company keeps up with the times and ensures the correct strategic direction.



## EMPLOYEE SATISFACTION CONSISTENTLY MAINTAINS HIGH SCORES

Conduct an annual satisfaction survey on employees, including aspects such as corporate culture, company catering, production safety, work environment, welfare benefits, and accommodation environment. If it is found that some employees have low satisfaction, the manager will immediately communicate with them and take corresponding actions to ensure the healthy development of the entire team. Our company has been awarded the Popular Enterprise Award in Xishan District for 5 consecutive years. In 2022, employee satisfaction reached a high level of 96%, and the next employee satisfaction survey will be conducted in 2023.

## EMPLOYEE'S PERSONAL DEVELOPMENT

In order to enhance employees' enthusiasm and promote their career development towards further and better directions, the company conducts monthly and annual performance evaluations of employees, including work life balance, leadership, cooperation, and goals. For employees with weaknesses, managers communicate with them to improve their business skills. Implement additional rewards for employees with outstanding abilities, such as annual free travel, salary increase, and job promotion.

## DISCRIMINATION IS NOT ALLOWED

Any types of discrimination is not allowed in corporate, not in hiring nor in promotion. Provide a fair working environment for employees. Not only suggestion boxes are set in many places to allow employees to feedback any discrimination without naming, but also employees could directly report any discrimination with management team. Any discrimination will be dealt fairly.

## ANTI-CORRUPTION

Gultech's code of conduct allows zero tolerance for corruption. All business transactions are kept transparent and accurately reflected in the company's business accounts and records. Any corruption could be anonymously reported through employee suggestion box or send mails to our group by online contact.



## ENVIRONMENTAL RESPONSIBILITY IN OUR PRODUCTION

In order to reduce climate impact in our production, we will focus on energy saving and consumption reduction, upgrade equipment to continuously reduce carbon emissions. We also invest in the construction of solar energy to increase the supply of green electricity.

# Gultech- Employee



## “Sharing working experiences & skills through technical seminar, upgrade mutual development”

In 2023, we held many rounds of technical seminar of various topics. The teachers are our own employees who are expert in one process. Attenders are employees who are interested in or related to this process. By this kind of seminar, employees could answer working doubts, enhance skills and rich technical ability to realize mutual development.



## “Excellent employee additional rewards”

In order to incent employees' working enthusiasm, we appraise each employee's performance and select excellent employees. For the excellent employees, Gultech have incentive activities, such as team building activity, free tourism and additional rewards.



# Gultech- Production



## WATER & WASTEWATER MANAGEMENT STRATEGY

Any types of effluents must conform to local main industry's water pollution discharge limits and commit to local regulations that wastewater without heavy metals, then flow to local centralized treatment of sewage plants.

Gultech focus on below 6 procedures to reduce water consumption and wastewater amount.

1. Analyze the data collected last year.
2. Re-evaluate and organize the water standards for each production line.
3. Daily record of total water usage, weekly record of water usage for each production line, and promptly investigate and resolve any abnormalities found.
4. Regularly inspect the pipelines throughout the factory to prevent any leakage or seepage.
5. Carry out water conservation publicity and education.
6. Implementation of water-saving renovation projects in each process.

Per above water management strategy, compared with year 2022, the water consumption reduced 17.44% and wastewater amount decrease 17.09% in year 2023.

## WASTE MANAGEMENT STRATEGY

To reduce climate impact caused by waste, Gultech established 6 steps to characterize, track, and manage the chemical, electronic, and other regulated waste generated onsite and through final disposition to reduce production waste.

1. Design improvement: Continuously optimize equipment layout, simplify production processes, reduce transportation distance, and minimize waste generation.
2. Adopting advanced process technology and equipment: The process technology and equipment adopted meet the requirements of clean production audit and reach the leading level in China.
3. Use clean energy and raw materials: such as use natural gas, purchase green electricity, and use low VOCs raw materials that meet industry requirements.
4. Improve management: Adopt the method of exchanging old gloves for new ones to eliminate waste and reduce the amount of waste.
5. Comprehensive utilization of hazardous waste: Comprehensive utilization of waste in accordance with environmental impact assessment and approval requirements.
6. Improve the level of pollution prevention and control: Closely follow the requirements of government departments, continuously improve pollution control capabilities.

Per above waste management strategy, waste volume in year 2023 reduced 18.81% compared with year 2022.

# Customers



We work together with customers to provide high-quality PCBs, with an increasing emphasis on sustainability in materials, design, and production. We expect to work with customers from the design stage to design carbon reduction products.

## COMMITMENT:

- High quality performance
- 100% on time delivery
- High score in customer satisfaction
- High sustainability score
- Sustainable design

## GOING FORWARD:

- Close cooperation with customers from the design phase to design PCB with the most optimized process and environmentally friendly materials to reduce waste.
- Assess transportation efficiency and offer less greenhouse emission transportation alternatives to reduce environmental impact.



# Customers



## SUSTAINABLE PCB SUPPLY

- In the design phase, we provide some solutions to customers, include design optimization, applying material which has stable performance to work together to design PCBs of the least scrap and of environmentally friendly materials to reduce climate impact through the whole life cycle.
- Always keep high level service and consolidated partnership with customers. From 2023 on, we had close dialogue with customers to gain more knowledge on how to support them better on the sustainability journey.



## HIGH SCORE IN CUSTOMER SATISFACTION SURVEY

- In 2023, we received our top 15 customers' satisfaction survey responses. The full score is 10 and we got a high level score of overall 8.1. The result showed that our strength lies in our excellent business support, technical support and quality performance. Area that receive lower score is price area. Going forward, we want to discuss with customers about product sustainable design and how to reduce PCB environmental impact.

## GET READY FOR THE FUTURE

- Nowadays several technology trends are driving the PCB applications. Auto driving and Artificial intelligence drive a higher level of human-computer interaction for car driving.
- With the development of new technology, PCB is becoming smaller and more complicated. Gultech will firmly follow the industry technology development and customer advanced requirements to develop our new technologies.

# Climate report



Gultech's ambition is to reduce the climate impact of its own operations as well as emissions in the supply chain. This is the second time Gultech measures emissions covering all three scopes (1-3) according to the GHG protocol standard. Data collected and included in calculations are described below.

- Gultech's reported emissions are quantified based on the methodology of the Greenhouse Gas (GHG) Protocol, Corporate Standard.
  - In 2023, calculations of Gultech's emissions in its own operation (scope 1 and 2) corresponded to 119115.89 tons CO<sub>2</sub>e and in the supply chain (scope 3) 159674.86 tons CO<sub>2</sub>e.
  - The calculations of emissions are based on data collection from internal sources (2 different functions within Gultech Group local companies and Factory Management team). External data has come from sources such as suppliers who provided data on energy consumption within the manufacturing, and logistic partners who provided information about transportation.
  - Whenever possible, primary data sources have been used. When specific data hasn't been available, screening calculations of emissions have been done based on standard estimates.
- **SCOPE 1** includes direct emissions from own operations. For Gultech, partial GHG emissions from fuel used in company cars and gas in boiler. Data was collected on Diesel and Petrol company cars and gas in boiler. Calculation emissions in scope 1 are based on estimated fuel consumption and emission factors for petrol, diesel and gas. Other GHG emission from evacuation produced in manufacturing process and waste treatment, etc.
  - **SCOPE 2** includes emissions from indirect energy from electricity and hot vapor purchased and used in Gultech production, warehouse and facility. The type of the purchased energy was also taken into account, meaning that contracts for renewable energy were included in the calculations. This led to a lower climate impact figure being obtained. Non-renewable electricity: The climate impact of purchased non-renewable electricity was calculated by multiplying the kWh of purchased electricity with the emission factor for the energy mix in China (source: CPCD). 100% Renewable: The climate impact of purchased 100% renewable electricity was calculated by multiplying the kWh of purchased electricity with the emission factor from the CDP.

# Climate report



- **SCOPE 3** includes data representing the manufacturing of raw materials, transportation and business travels. The energy consumed in the manufacture of raw material represents the largest part of the greenhouse gas emissions in scope 3. The energy consumed in manufacturing was collected directly from the main raw material suppliers.
- **Factors** (source: CPCD). Data from PCB manufacturers in China, Transportation of the raw materials stands for the second largest emissions. The scope of the calculations covers transportation between local warehouses and customer, “last mile”, were not included in the calculations. The majority of the reported emissions from transportation are based on data reported by logistic service providers.

<b>GHG Emissions (tons CO2e)</b>	<b>2023 (unit: tons)</b>
<b>Direct GHG Emissions (scope 1)</b>	<b>3929.05</b>
Fixed combustion emissions	1836.98
Mobile combustion emissions	146.21
Process emissions	97.46
Evacuation emissions	1848.38
<b>Indirect GHG Emissions (scope 2)</b>	<b>115226.84</b>
Electricity	105289.35
Vapour	9937.49
<b>Other indirect GHG Emissions (scope 3)</b>	<b>159674.86</b>
Outpurchased goods	136512.46
Combustion energy consumption	3692.52
Upstream transportation and distribution	406.31
Waste transportation and disposal	1723.75
Business travel	8.62
Employee commuting	211.66
Downstream transportation	17119.54
<b>Total (scope 1-3)</b>	<b>278830.75</b>
<p>Greenhouse Gas (GHG) Emissions are calculated as carbon dioxide equivalents (CO2e). CO2e is defined as the amount of a particular GHG, expressed as the amount of carbondioxide that gives the same greenhouse effect. CO2e figures includes the following GHG gases: CO2, CH4, N2O, HFCs and PFCs. Gultech reports GHG emissions according to the GHG protocol.</p>	

# GRI Content index



The following GRI content index will help you navigate through the report.

GRI Standard		Page Reference and Remarks
<b>2</b>	<b>Generals Disclosures 2023</b>	
2-1	Organizational details	P3-P7, About Gultech, Gultech history and Gultech PCBs
2-2	Entities included in the organization's sustainability reporting	P6, Gultech's factories and Offices
2-3	Reporting period, frequency and contact point	P11, Gultech sustainability strategy yearly reviewed and report
2-4	Restatements of information	P8, CQE's statement
2-5	External assurance	P16-P21, Gultech supply chain's responsibility
2-6	Activities, value chain and other business relationships	P16-P28, Gultech supply chain's responsibility, Gultech activities & Customers
2-7	Employees	P23-P25, Gultech employees
2-10	Nomination and selection of the highest governance body	P13, Gultech sustainability governance
2-11	Chairman of the highest governance body	P13, Gultech sustainability governance
2-12	Role of the highest governance body in overseeing the management of impacts	P13, Gultech sustainability governance
2-14	Role of the highest governance body in sustainability reporting	P11, Gultech sustainability strategy
2-22	Statement on sustainable development strategy	P11-P13, Gultech sustainability strategy
2-23	Policy commitments	P11-P13, Gultech sustainability strategy
2-24	Embedding policy commitments	P13, Sustainable development goals
2-25	Processes to remediate negative impacts	P13, Sustainability risks management
2-26	Mechanism for seeking advice and raising doubts	P15, Target 12.6 & P24, Seeking advice from 3 <sup>rd</sup> party
2-27	Compliance with laws and regulations	P13, Sustainability risks management & P14, Target 3.9/6.3/8.8 & Page 15, Target 16.C
2-28	Membership of the Association	P9, Gultech's sustainability milestone
2-29	Approach to stakeholder engagement	P10, Business sustainability-value chain approach

# GRI Content index



GRI Standard		Page Reference and Remarks
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3-1	Process to determine material topics	P10, Business sustainability-value chain approach
3-2	List of material topics	P14-P15, Gultech sustainable development goals
3-3	Management of material topics	P13, Sustainable development goals
<b>201</b>	<b>Economic Performance</b>	
201-1	Direct economic value generated and distributed	P6, Annual sales turnover
201-2	Financial implications and other risks and opportunities due to climate change	P22, New targets from 2023
201-3	Fixed income plan obligations and other retirement plans	P13, Gultech sustainability governance
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<b>203</b>	<b>Indirect Economic Impacts</b>	
203-1	Supported infrastructure investments and services	P11, Climate actions in focus
203-2	Significant indirect economic impact	P5, PCB technology trends
<b>205</b>	<b>Anti-corruption</b>	
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205-2	Communication and training about anti- corruption policies and procedures	P24, Anti-corruption
205-3	Confirmed incidents of corruption and actions taken	P13, Sustainability risks management. Zero incident of corruption in year 2023.

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301-2	Recycled material used	P22, Recycle and re-use materials (Copper/Tin/Routing bit)
301-3	Recycling products and their packaging materials	P22, Recycle and re-use materials (Copper/Tin/Routing bit)
<b>302</b>	<b>Energy</b>	
302-1	Energy consumption within the organization	P30, Climate report
302-2	Energy consumption outside of the organization	P30, Climate report
302-3	Energy intensity	P30, Climate report
302-4	Reduction of energy consumption	P29, Online CDP yearly climate report
302-5	Reductions in energy requirements of products and services	P28, Sustainable PCB supply
<b>303</b>	<b>Water and Effluents</b>	
303-1	Interactions with water as a shared resource	P29, Online CDP yearly water report
303-2	Management of water discharge-related impacts	P14, Target 6.3 & P26, Water management strategy
303-3	Water withdrawal	P14, Target 6.3 & P26, Water management strategy
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305-3	Other indirect (Scope 3) GHG emissions	P30, Scope 3
305-4	Greenhouse gas (GHG) emissions intensity	P30, GHG emissions
305-5	Reduction of GHG emissions	P29, Online CDP yearly GHG report
305-6	ODS emissions	P30, no ODS emissions in GHG emissions
305-7	Nox, Sox and other important atmospheric emissions	P30, GHG CO2e includes CO2, CH4, N2O, HFCs and PFCs
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306-2	Management of significant waste-related impacts	P14, Target 8.4 & P15, Target 12.5 & P26, Waste management strategy
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<b>308</b>	<b>Supplier Environmental Assessment</b>	
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403-4	Worker participation, consultation, and communication on occupational health and safety	P13, Follow ISO45001
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403-8	Workers covered by an occupational health and safety management system	P13, Follow ISO45001 & P14, Target 3.4
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407-1	Operations and suppliers where freedom of association and collecting bargaining rights may be violated	P13, Follow RBA regulations
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