



# UTAC

## Corporate Sustainability Report 2023

[utacgroup.com](http://utacgroup.com)  
UTAC Headquarters  
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# About this Report

UTAC Headquarters Pte Ltd and its subsidiaries (UTAC or UTAC Group) reaffirms our commitment to sustainability through our tenth annual Group Sustainability Report (SR2023). This report outlines the Group's strategy and approach to sustainability, noting key performance indicators and impact made.

To the best of our ability, UTAC has ensured transparency in our performance while celebrating our achievements as we advance as a sustainable and responsible business.

This report contains data and information pertaining to the 2023 calendar year from 1 January to 31 December 2023 and covers all UTAC's business entities unless stated otherwise.

In 2023, UTAC commenced operations of UTAC Yantai a new factory in China. The data related to the new operations has been included in this reporting period. We have also restated data from past year for emissions. Reasons for restatements and the impact of the restatements have been included in the relevant sections.



## Reporting Approach

UTAC Group's reporting approach is guided by our Corporate Social Responsibility (CSR) Policy and Commitment statement, which is aligned with the Responsible Business Alliance (RBA) framework. The Responsible Business Alliance is the world's largest industry coalition dedicated to responsible business conduct in global supply chains.

In 2023, our sustainability systems, processes and practices across our operations were certified as having met ISO14001 and ISO45001 industrial standards.

To ensure that our environmental, health and safety regulations are aligned with international best practice, we have implemented key systems, processes, and frameworks in the areas of Environmental Management System (EMS) and the Occupational Health and Safety System (OH&S). We also hold regular audits to ensure continued compliance.

UTAC strives to comply with all RBA and Environmental, Health and Safety (EHS) guidelines across all site operations, and our assembly and testing process complies with relevant

legislations including the Restriction of Hazardous Substances (RoHS) Directive, Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation, and the Montreal Protocol on Substances that Deplete the Ozone Layer.

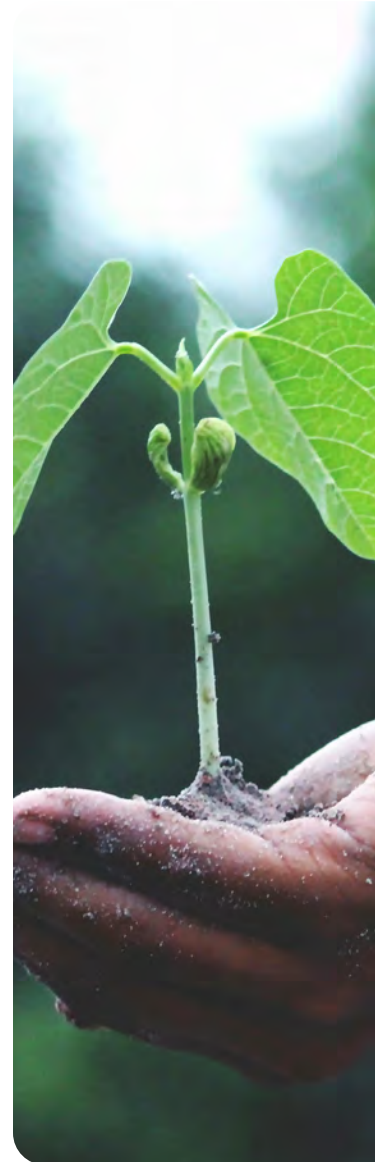
While the data in this report has undergone rigorous internal review, this report has not been verified by external assurance.

If you have any comments or suggestions, please feel free to contact us at:

Global Sustainability Office, UTAC Group  
Address: 22, Ang Mo Kio Industrial Park 2, Singapore 569506  
Email: [UTAC\\_GSO@utacgroup.com](mailto:UTAC_GSO@utacgroup.com)

## Reporting Standards

This report has been prepared with reference to the GRI standards and its reporting principles. For more information on the specific standards applied and disclosures reported against, please refer to the GRI Content Index page.



# CEO's Message

Dear Stakeholders,

In recent years, sustainability has grown from a hallmark of a responsible business to a vital part of business considerations. As a company that has long been committed to sustainability, UTAC has evolved with changing global and local needs and is now strengthening our commitment to decarbonisation and overall enterprise sustainability.

With the creation of our new Global Sustainability Office, UTAC is poised to better tackle the sustainability challenges facing our industry and chart the course for a more resilient and responsible business.

I am proud to present UTAC's tenth sustainability report which not only communicates our sustainability progress and efforts in 2023, but also notes the efforts we will be taking moving forward.

This year under review has seen a continuation of global supply chain disruptions caused by geopolitical tensions and extreme weather-events. The industry has seen fluctuations but is poised for growth with catalysts such as Artificial Intelligence (AI), automotive and Electric Vehicle (EV) content.

A heartening trend that is fuelling our commitment to sustainability is our customers' increasing prioritisation of sustainability commitments. As the industry continues to move towards greater environmental and social responsibility, UTAC is proud to demonstrate the ways in which we will help to move the needle and deliver long-term value to our stakeholders.

In line with this, we have leveraged our previous environmental initiatives of installing solar photovoltaic systems at our facilities in Singapore and Thailand, and the procurement of green energy from local providers in Dongguan China, which enabled more than 20% of our energy consumption in 2023 to come from renewable energy sources. We are also embarking on a host of initiatives, value-added designs, energy and water efficiency, value chain engagement and circular economy approaches to reduce our environment impact along the entire value chain and better support our customers in their decarbonisation journeys.



UTAC's success to date would not be possible without the contributions of our employees. Across Singapore, China, Thailand, Malaysia and Indonesia, UTAC continues to thrive because of the combined efforts of dedicated individuals. We strive to ensure a safe and conducive workplace and understand that the welfare of our employees is our responsibility. With this in mind, we actively seek opportunities to facilitate our employees' upskilling and development through leadership trainings, workshops and employee engagement. In recognition of these efforts, we have been presented with various human resources (HR) excellence awards across our different regional offices.

As stakeholders in the communities we operate in, we take pride in our efforts to support local charities, provide scholarships and enable volunteering and community involvement. In the years to come, we aim to deepen our commitments to our communities and play our part in cultivating thriving societies.

UTAC is dedicated to building a sustainable and ethical business. We have an established Code of Conduct and CSR Policy that outlines our zero-tolerance approach towards corruption, bribery, and discrimination of any form. We value transparency and believe that these efforts allow us to remain a trusted partner for the long-term. In addition, we have subscribed to RBA-

Online, which includes the Validated Assessment Program, a comprehensive platform designed to help companies manage and share sustainability data, ensuring effective verification processes. By aligning with the RBA's standards, we strengthen our commitment towards the protection of labour rights and employee health and safety, environmental stewardship, and ethical business practices, further solidifying our dedication to responsible business operations.

In the coming year, UTAC aims to make strides in our sustainability efforts. We will do so by aligning with best practices and taking into consideration both financial and impact materiality through a double materiality assessment. We will also evaluate our Scope 3 emissions to identify emission hotspots in our supply chain and enhance our decarbonisation initiatives.

As we look ahead, I would like to extend my heartfelt appreciation to our management team, employees, customers, suppliers and stakeholders for their support and collaboration, and look forward to the next chapter of UTAC's sustainability journey in 2024.

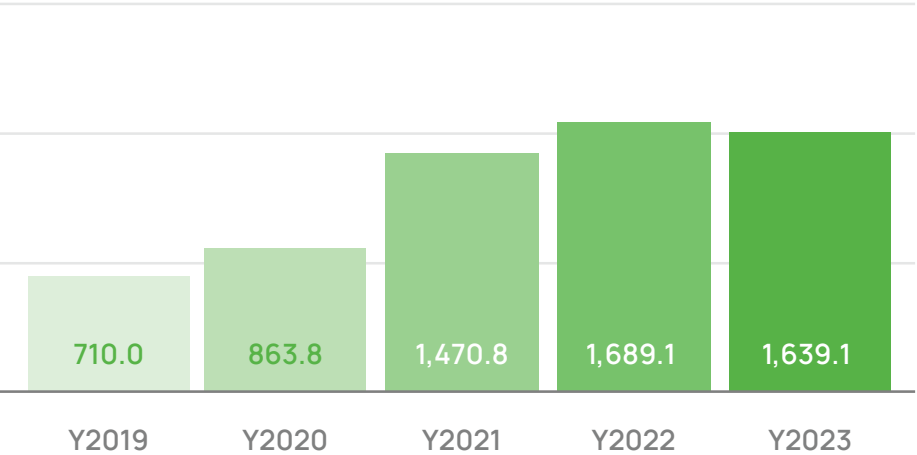
**Dr. John Nelson**  
President and Chief Executive Officer



# About UTAC Group

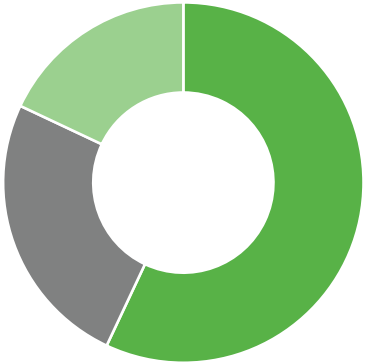
UTAC Group is a leading provider of manufacturing assembly and test services for semiconductor chips and devices across a diversified range of end uses, from industrial applications to personal needs. Our customers include fabless companies, integrated device manufacturers and wafer foundries.

5 yrs Revenue Trend (USD \$M)



## Diversified Revenue Sources

By End Market  
2023 Revenue



- **Automotive & Industrial, 25%**  
ADAS | Safety | Electrification | Infotainment | Industrial | Medical
- **Computing & Consumer, 18%**  
PC/Laptops | Data Center | A/R & Gaming | Wearables Connected Home | Home Electronics
- **Communication, 57%**  
Smartphones | Infrastructure

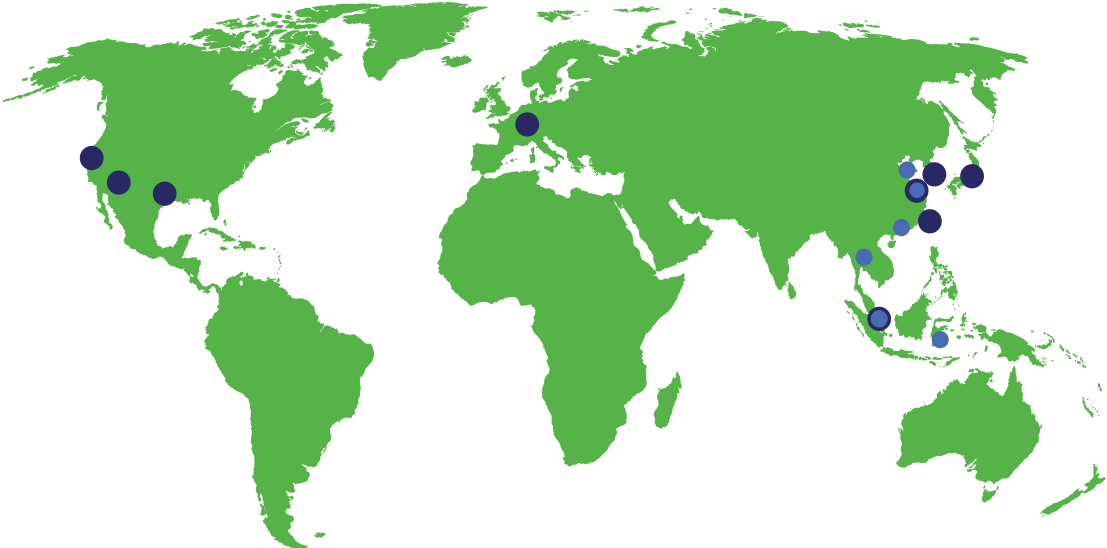
By Service 2023  
Shipment Units



- Test 50%
- Assembly 50%

# UTAC Global Footprint

● Sales Office    ● Factories



Thailand  
(Bangkok)



UTL1



UTL2A



UTL2B



UTL3

Indonesia  
(West Java)



UID

China  
(Dongguan, Yantai)



UDG



UYT

Singapore  
(Singapore)



USG1



USG2



USG3



Established in 1997,  
headquartered in Singapore



Full range of semiconductor  
assembly and test services



Global sales presence



Decades of relationship  
with world's top semiconductor  
companies



Leading provider of advanced  
semiconductor test capabilities



>1000 semiconductor package  
offerings >2000 testers

# Vision and Values

UTAC's vision is "Passionate People Providing Customers with World Class Turnkey Test and Assembly Services".

We strive to create a team of passionate people working in unity to deliver quality products and value-added services that meet and exceed customers' expectations. We also strongly believe in corporate social responsibility and the desire to make a positive impact on our environment and community, while being an employer of choice.



## Unity

Work together with passion and a 'can-do' attitude toward accomplishing goals innovatively. Collaborate to do things right the first time.



## Trust

Establish trust and credibility by exercising honesty in all things we do. Compliance to applicable laws, regulations, policies and procedures.



## Accountability

Take ownership and responsibility for own actions. Deliver on commitments.



## Communication

Practice open and honest communication. Encourage constructive feedback and build trust throughout the company.



# Memberships and Associations

UTAC is a founding member of the Semiconductor Climate Consortium (SCC), a group formed by companies across the semiconductor value chain to accelerate the ecosystem's reduction of greenhouse gas emissions. The SCC is the first global collaborative of semiconductor ecosystem companies focused on reducing greenhouse gas (GHG) emissions across the value chain.

The SCC platform has enabled UTAC to learn from and exchange ideas with members, inspiring the development of more robust strategies to address the challenges of climate change. Through our active discussions with the members in various working groups, UTAC has leveraged the knowledge shared to devise ways to improve our operational efficiency and reduce greenhouse gas emissions in our value chain.





# Sustainability Approach

01.

## Our Principles:



We strive to provide a safe and healthy environment for our employees, contractors, suppliers and the communities in which we operate



We recognise the importance of human rights, resource conservation, community wellbeing and business ethics



We are committed to the prevention of pollution, injury, and ill health in the workplace

Drawing on these principles, UTAC will continue to build an enduring and sustainable business.

# 1.1 Sustainability Strategy

In today's rapidly developing technological landscape, the semiconductor industry is crucial to enabling continued growth. Through our work, UTAC plays a significant role in the sector and has the potential to contribute to enhancing its sustainability in the long run. In the coming year, we will deepen our commitment to sustainability through increased decarbonisation efforts, smart factory improvements and value chain engagement.

UTAC aims to add value to all our stakeholders; from our customers to our employees to the communities we operate in. We strive to do business ethically and sustainably and our policies commitments are communicated to our stakeholders through our Code of Conduct.

Our Code of Conduct and CSR policy is guided by the RBA framework. In addition, we leverage RBA's Validated Assessment Program, a leading standard for onsite compliance verification and effective, shareable assessments conducted by independent, third-party firms.



# 1.2 Corporate Governance

UTAC believes that strong corporate governance creates trust among stakeholders and continued confidence in our products and services. UTAC is led by our Chief Executive Officer (CEO), Dr John Nelson, who takes overall responsibility for the direction of the company, including the direction of UTAC's sustainability strategy, policies and goals. He is supported by our senior corporate management team, who also manages and implements UTAC's sustainability approach and initiatives in alignment with the direction set. Quarterly updates are provided to our Board of Directors to keep them apprised of developments of UTAC Group, including developments on sustainability matters.

Looking ahead, UTAC will establish a Global Sustainability Office. The function will be overseen by our General Counsel and Chief Sustainability Officer (CSO). The CSO will also be supported by the senior management team, which enables the implementation and management of UTAC's sustainability strategy, policies and goals.

As part of efforts to better coordinate sustainability practices, UTAC has appointed Regional Sustainability Coordinators who work in concert with other relevant functions or departments to cascade and integrate sustainability

practices and targets within each manufacturing facility. Domain experts and special taskforces from our Global Sustainability Office also provide support in sustainability areas where needed.

Information in our sustainability report, including the material topics selected, is reviewed and approved by our CEO and CSO.



# 1.3 Stakeholder Engagement

UTAC places an emphasis on cultivating strong relationships with our stakeholders, inclusive of our employees, suppliers, customers and communities. We do this through consistent engagement and creating opportunities for feedback.

Internally, we conduct periodic surveys and performance reviews as avenues for employees to provide their views on overall company efforts as well as specific sustainability-related efforts. We value employee input and incorporate improvements where applicable to foster a conducive working environment. Externally, we have feedback mechanisms on our website and customer centres for investors and customers to use.

## 1.3.1 Material Topics

Through internal discussion and industry analysis, UTAC has identified sustainability issues that are material to the company and have categorised them under the Environmental Stewardship, People and Community and Responsible Business pillars.

In the coming financial year, UTAC will embark on a double materiality assessment, which considers both financial and impact materiality. Through this assessment, UTAC will be better able to prioritise material issues, understanding our impact on the environment, the economy, and our stakeholders from both an inside-out and outside-in perspective. This will help to holistically inform our goal setting from both impact and financial perspectives.

### *Selected material topics for UTAC*

Environmental Stewardship	People and Community	Responsible Business
<ul style="list-style-type: none"><li>• Emissions and energy management</li><li>• Waste management</li><li>• Water management</li><li>• Community Engagement</li></ul>	<ul style="list-style-type: none"><li>• Occupational health and safety</li><li>• People development</li><li>• Diversity and inclusion</li><li>• Community impact</li><li>• Customer satisfaction</li></ul>	<ul style="list-style-type: none"><li>• Ethical business conduct</li><li>• Sustainable supply chain management</li><li>• Data security</li><li>• Innovation management</li></ul>

# Key Performance Highlights in 2023



## Environmental Stewardship

### Emissions and energy management

- UTAC's total scope 1 and 2 emissions (location-based) were 187,591 tCO<sub>2</sub>, a reduction of 930 tCO<sub>2</sub> from 2022.
- 21% of UTAC's total energy consumption was from renewable sources, such as our on-site solar generation and green energy procurement.

### Waste management

- 50% of our total waste was recycled.

### Water management

- UTAC has utilised 1,125 ML of reclaimed water for production use.



## People and Community

### Occupational health and safety

- UTAC maintained our record of zero fatalities. Our OSHA total recordable case rate (TRCR) is 0.080, and our days away, restricted or transferred (DART) rate is at 0.057.
- We received the Gold Class Award in Zero Accident Campaign (2023) for the 4th Consecutive Year in Thailand.

### People development

- We received the HR Excellence Award Singapore 2023 - Best HR Team Bronze Award (MNC).

### Diversity and inclusion

- 33% of our managerial and senior management roles are held by women in 2023.

### Community impact

- In 2023, UTAC conducted 11 blood donation drives across Singapore, China, Indonesia, Malaysia and Thailand entities. With the support of employee volunteers and donors, the total blood volume of 415,600 cc was donated.
- Across our entities, our initiatives include donations to communities, provision of scholarships and hosting charity events. Our donations totalled almost 65,000 U.S. dollars in 2023.

### Customer satisfaction

- Awards from customers:
  - Strong Collaboration and Business Support Appreciation
  - Quality, Technology and Engineering Performance
  - Excellent Quality Performance
  - Best Test Supplier (Four Consecutive Quarters FY22Q4 to FY23Q3)



## Responsible Business

### Ethical business conduct

- 100% of our staff received Code of Conduct training.

### Sustainable supply chain management

- 100% of our direct suppliers met the Responsible Minerals Initiative requirements for conflict-free smelters.



# Environmental Stewardship

# 02.

UTAC understands the urgency for countries and businesses to combat climate change. We believe that every business has a role to play in enabling the global transition to a low-carbon economy and have thus made achieving carbon neutrality a strategic objective.

UTAC recognises the importance of assessing and mitigating the actual and potential impacts of our operations. We are in the midst of enhancing our performance measures to better monitor the environmental performance of each of our manufacturing facilities.

Our environmental management system for all manufacturing sites is certified as having met ISO14001:2015 industrial standards, and these sites also comply with the Restriction of Hazardous Substances Directive.

We remain committed to complying with all local laws and regulations in the countries we operate in, including obtaining all the necessary permits. We assess and manage our environmental risks and impacts in our day-to-day operations and ahead of project commencement.

We also actively engage our suppliers and perform supplier assessments to ensure supplier compliance with environmental standards. Details of our supplier assessments are elaborated in the 'Sustainable Supply Chain Management' section of this report.

As part of our sustainability ambitions, UTAC aims to improve awareness of environmental stewardship amongst our employees to enable us to make a positive impact on the communities we operate in and stakeholders we work with.

Performance highlights	
Percentage of renewable energy as part of total energy consumption	21%
Waste recycled	4,261 tonnes
Wastewater treatment and discharge compliance	100% regulatory compliance in water discharged

# 2.1 Emissions and Energy Management

## 2.1.1 Management Approach

UTAC's manufacturing facilities require the intensive use of electricity, which contributes significantly to our overall energy consumption and emissions, a smaller portion of which relates to fuel and gas consumption. As such, we have made the management of our energy consumption and GHG emissions a key priority of our environmental strategy.

Over the years, UTAC has undertaken various energy efficiency initiatives and conservation programmes to reduce our energy consumption, with two of our manufacturing facilities obtaining ISO 50001 certification. We have also worked to increase our use of renewable energy by harnessing solar power through the installation of solar photovoltaic systems at three of our facilities. In 2023, our three operating solar photovoltaic systems had a total generating capacity of 5,692kWp. We currently have a fourth solar photovoltaic system in the pipeline and expect it to be operating by 2025. In 2022, we made a 100% shift to use renewable energy for our Dongguan

operations in China through the signing of Power Purchase Agreements, which has significantly helped to reduce our Scope 2 emissions.

UTAC's management is actively devising a multi-pronged strategy to achieve carbon neutrality, including exploring low-carbon manufacturing opportunities, the purchase of renewable energy and Renewable Energy Certifications (RECs), as well as collaboration with business partners to identify opportunities for emission reduction across the value chain.

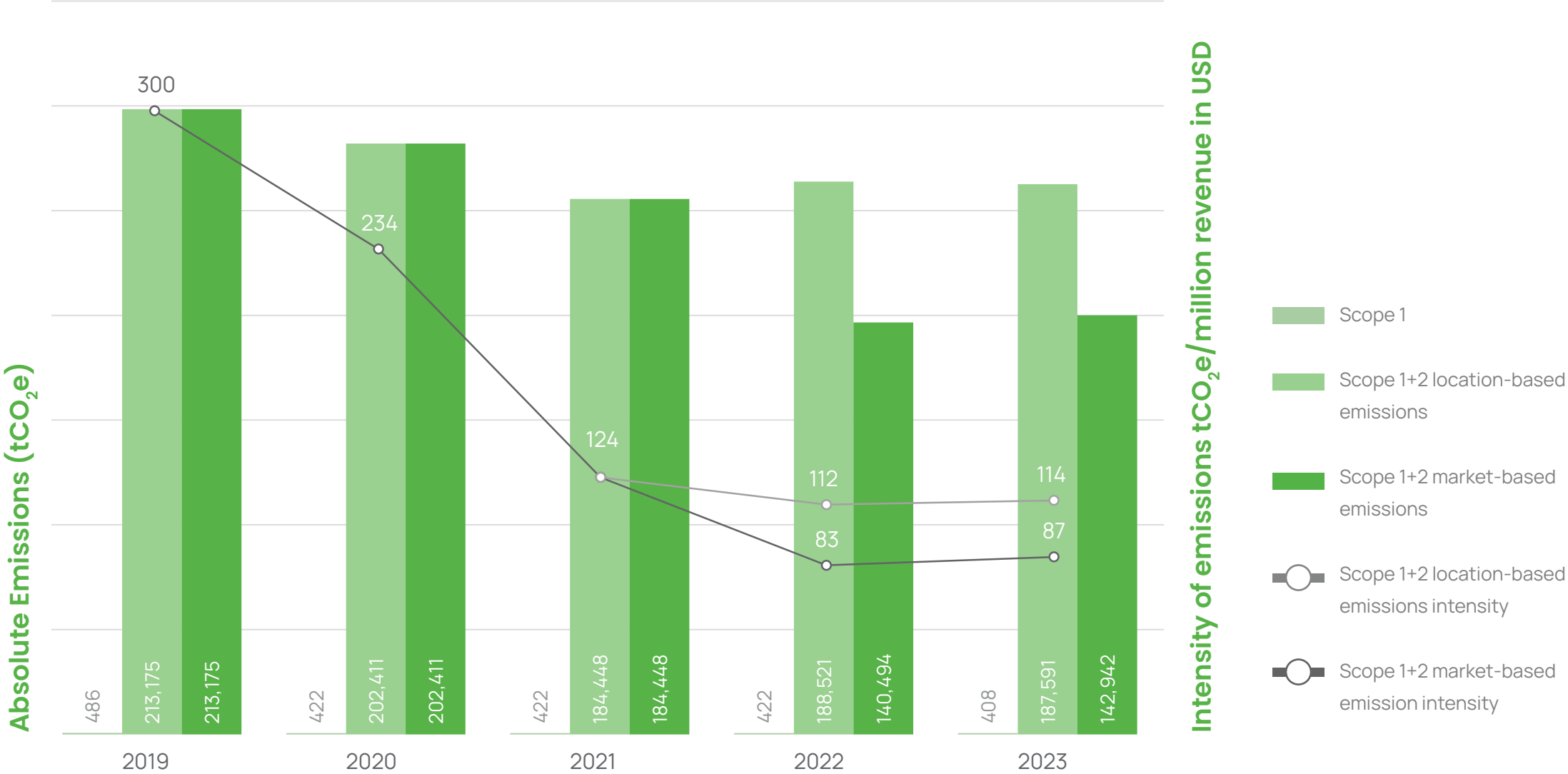
Through close analysis of our electricity consumption trends and monthly Scope 1 and 2 emissions, we have established concrete, geographically granular quarterly performance targets to monitor our emissions performance and carbon footprint reduction. This is intended to increase accountability of our internal stakeholders and keep us on track for achieving our goal of reducing our Scope 1 and 2 emissions by 15% by 2025 from a 2020 baseline.

## 2.1.2 Emissions and Green Energy

### 2.1.2-a Performance and Initiatives

UTAC's active tracking and monitoring of our carbon footprint and energy consumption has enabled the identification of areas for improvement in resource and energy efficiency.

Trend of absolute and intensity emissions



### Historic Scope 1 and 2 GHG emissions

Emissions	2019	2020	2021	2022	2023 <sup>4</sup>
Scope 1 (tCO <sub>2</sub> e)	486	422	422	422	408
Scope 2 (tCO <sub>2</sub> e) <sup>3</sup>					
Location-based	212,689	201,989	184,026	188,099	187,183
Market-based	212,689	201,989	184,026	140,072	142,534
Total Scope 1 and 2 emissions (tCO <sub>2</sub> e) <sup>3</sup>					
Location-based	213,175	202,411	184,448	188,521	187,591
Market-based	213,175	202,411	184,448	140,494	142,942
GHG Intensity (Scope 1 and 2) (tCO <sub>2</sub> e/million revenue in USD) <sup>3</sup>					
Location-based	300	234	124	112	114
Market-based	300	234	124	83	87

#### Note

<sup>1</sup> GHG emissions are calculated in accordance with the operational control approach of the GHG Protocol. Gases included in the calculation are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). UTAC's operations do not produce emissions related to hydrofluorocarbons (HFC), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>).

<sup>2</sup> Conversion factors for Scope 1 and Scope 2 (location-based and market-based) emissions were obtained from the IPCC Emissions Factor Database and respective regional energy authority.

<sup>3</sup> With the increase in the use of renewable energy, the presentation of GHG emissions for Scope 2 has been expanded to include the disclosure of market-based emissions. In our 2022 Sustainability Report, market-based Scope 2 emissions were disclosed for 2022 instead of location-based emissions. For 2022, we have enhanced our calculation methodology and emissions factors used, leading to restatements of our emissions.

<sup>4</sup> In 2023, UTAC Yantai (UYT) commenced operations of a new factory and data of the new operations has been included for this reporting period.



Annually, UTAC produces a relatively small amount of Scope 1 emissions, the sources of which are fuel and gases to support our manufacturing activities. Although this source contributes to a minor proportion of our total emissions of Scope 1 and Scope 2, we continue to explore new solutions, such as energy efficiency initiatives to reduce these emissions.

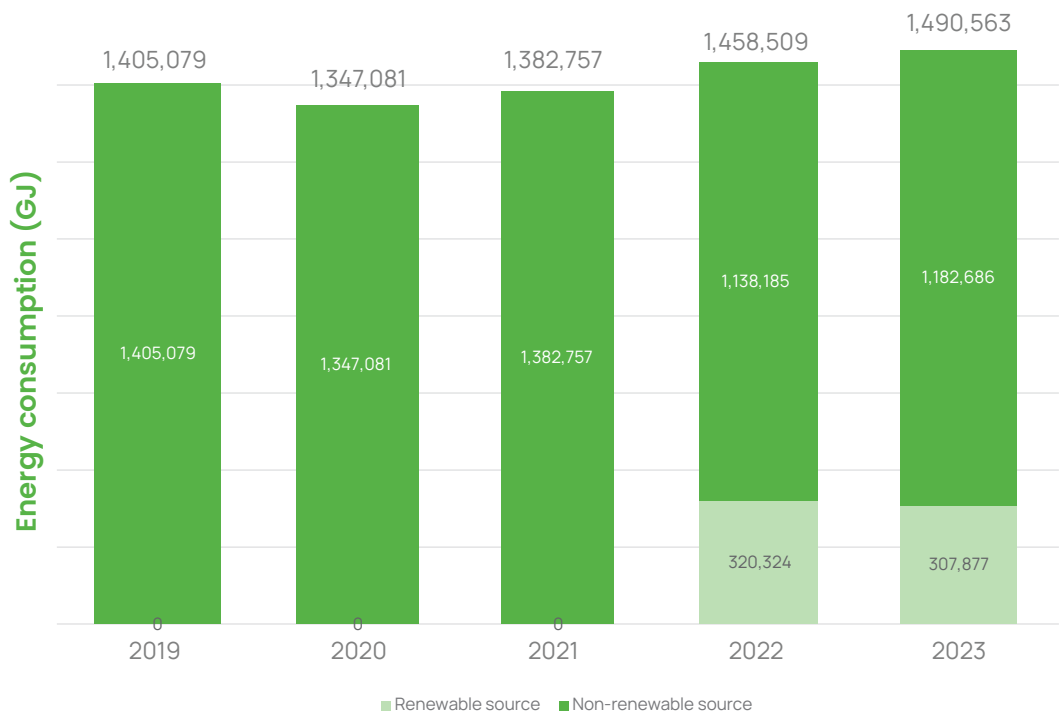
Between 2021 and 2022, shifting to 100% renewable energy sourcing for UTAC Dongguan in China and the installation of solar photovoltaic systems in our Singapore and Thailand facilities resulted in a significant decrease in our market-based Scope 2 emissions. By 2025, we expect to introduce our fourth solar photovoltaic system in our Thailand facility. UTAC is committed to identifying further opportunities to gradually increase our proportion of renewable energy usage.

In 2023, the total Scope 1 and 2 location-based emissions for UTAC decreased to 187,591 tCO<sub>2</sub>e; a 0.5% reduction compared to 2022. Whilst the shift was not major, we expect emissions from our operations to trend upwards due to our new operations in our Yantai factory. Hence, we are actively looking for technology initiatives and green energy sources to reduce our emissions to enable us to remain on track to achieve our target of Scope 1 and 2 reductions in market-based emissions by 15% by 2025 from a 2020 baseline.

## 2.1.3 Energy Efficiency and Consumption Reduction

### 2.1.3-a Performance

Trend of energy consumption <sup>1</sup>



Historic energy consumption <sup>1</sup>

Energy Consumption	2019	2020	2021	2022	2023
Energy Consumption from Renewable Sources (GJ) <sup>2</sup>	n/a	n/a	n/a	320,324	307,877
Energy Consumption from Non-renewable Sources (GJ)	1,405,079	1,347,081	1,382,757	1,138,185	1,182,686
Total Energy Consumption (GJ)	1,405,079	1,347,081	1,382,757	1,458,509	1,490,563

Note  
<sup>1</sup> Energy consumption was calculated based on a detailed assessment of invoices and reports from energy providers.  
<sup>2</sup> Data for energy consumption from renewable sources from 2019 to 2021 are not available.

### 2.1.3-b Energy Consumption Reduction Initiatives

In 2023, UTAC implemented initiatives to reduce energy consumption across our business units. We focused on improving the energy efficiency of our equipment, as well as overhauling our infrastructure and equipment with newer, more efficient models. As part of these efforts, we installed higher efficiency centrifugal air compressors, zero purge dryers, and replaced aging Air Handling Units (AHUs). We also reduced our energy consumption through the optimisation of utilities system operations.



#### Initiative:

#### Optimised use of compressor machines to achieve power savings

Through reviewing the efficiency of individual air compressors and optimising the operating strategy for high-performance air compressors to support the production needs, UTAC Thailand achieved significant energy savings of approximately 1,586,000 kWh in 2023.

At UTAC Yantai, the team enhanced the operating strategy through loading and setpoint management, resulting in the use of only one instead of two compressors to meet production demands. As each compressor machine has a minimum operating load to ensure that the stability of pressure is maintained, there was potential to save a considerable amount of electricity by switching off one of the compressors. The team also planned the back flush frequency for wastewater treatment to operate during night shifts to reduce the operating load on the compressor during the day. Through these efforts, energy savings of 2,376,000 kWh was achieved in 2023.

**Initiative:**

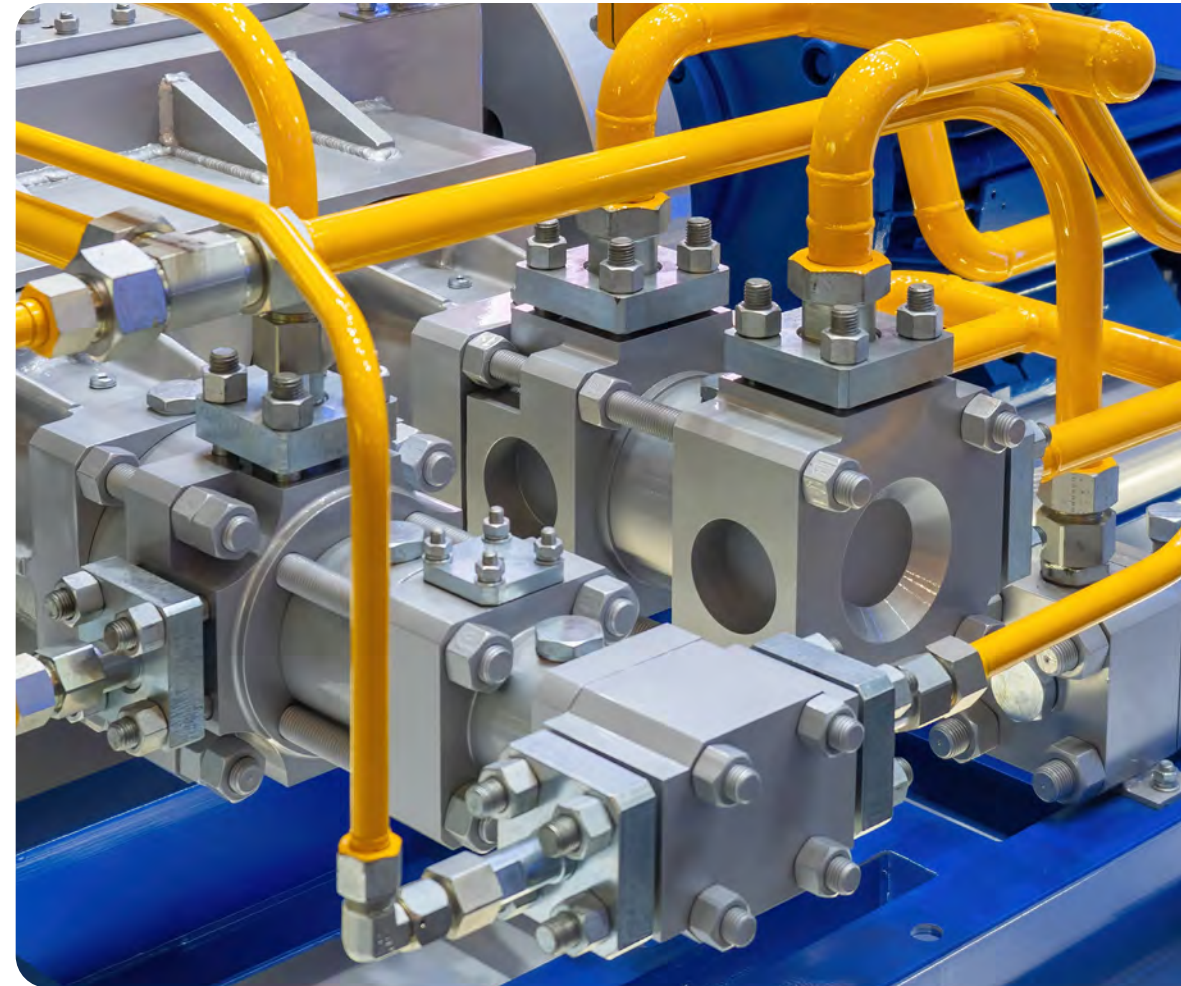
### **Installation of high efficiency compressor and dryer at UTAC Dongguan**

Two 630 kW high efficiency air compressors and zero purge dryer systems were installed at two manufacturing facilities in UTAC Dongguan in 2023 and the beginning of 2024. By opting to install these high efficiency machines, UTAC Dongguan had estimated total energy savings of 1,090,000 kWh/year and would also benefit from the enhanced system reliability.

**Initiative:**

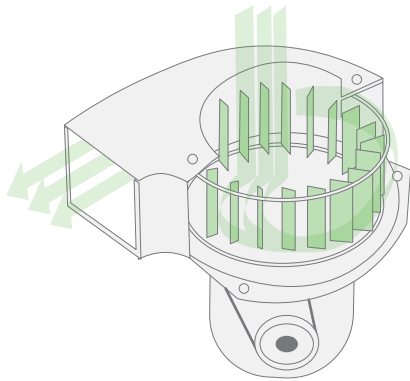
### **Installation of high efficiency compressor and dryer at UTAC Singapore**

Two 400 kW high efficiency air compressors and zero purge dryer systems were installed in UTAC Singapore in 2023. Combining the new high efficiency centrifugal compressors and zero purge dryers to handle the base load, UTAC Singapore had estimated total energy savings of 2,089,112 kWh/year.

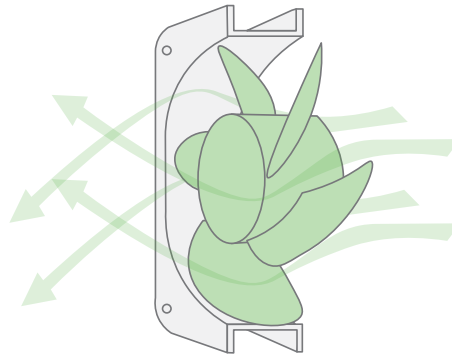


## Replacement of aging AHUs with newer technology at UTAC Singapore

UTAC Singapore initiated the replacement of 51 AHUs in phases from Q4 2023, requiring an investment of 2.4 million U.S. dollars. The adoption of better technology, including the use of a direct drive axial fan, is expected to increase energy efficiency and yield annual energy savings of 1,156,865 kWh/year. The project is expected to be completed in 2024.



Belt Drive Centrifugal Fan



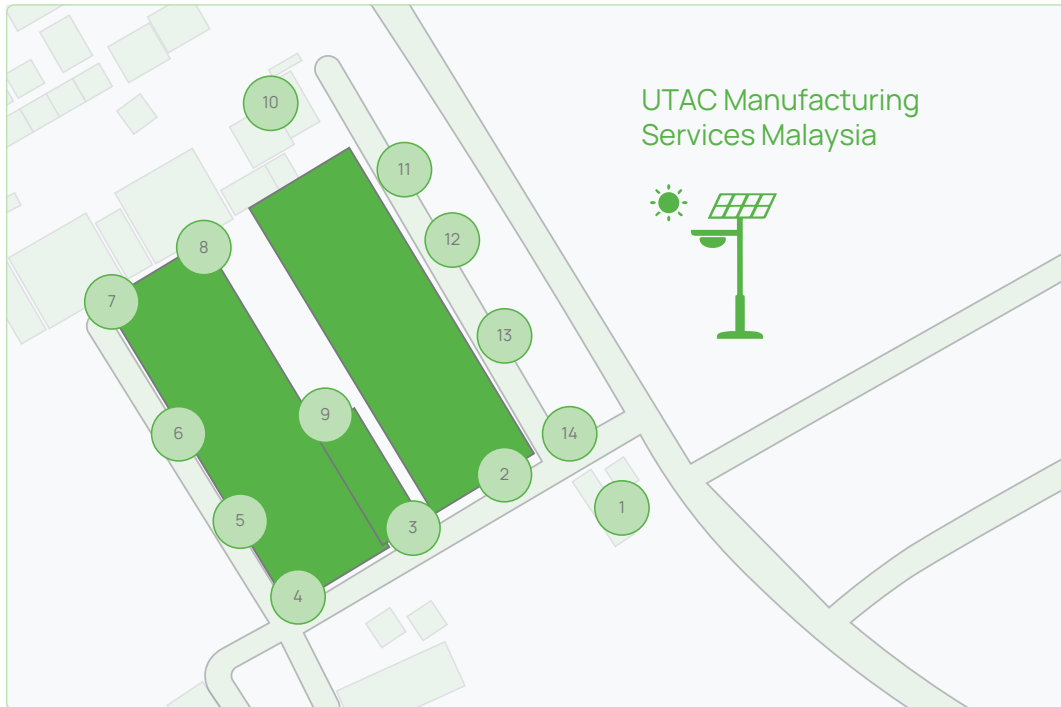
Direct Drive Axial Fan

- More Efficient & Less Maintenance



## Installation of solar street lighting at UTAC Malaysia

UTAC Malaysia embarked on a project to replace the spotlights around its manufacturing facility with solar streetlights. With a low investment cost of two thousand U.S. dollars, UTAC Malaysia yielded energy savings of 35,780 kWh/year, which translates into savings almost equivalent to the investment cost per year going forward.



In the coming two years, UTAC plans to monitor and report our Scope 3 emissions to further decarbonise our operations. We will begin with a Scope 3 screening exercise to identify the relevant emissions categories, followed by an evaluation of our Scope 3 emissions in accordance with the internationally recognised Greenhouse Gas Protocol to identify the emission hotspots in our supply chain.

We intend to conduct a detailed mapping of our Scope 3 emissions to enable us to identify our upstream and downstream impacts more accurately.

While we are on track to achieve our 2025 Scope 1 and 2 targets, we are keen to explore the next potential near and mid-term target that we can set using the best-in-class target setting options. To enhance credibility, we are exploring the possibility of having our emissions externally assured.

In line with this, UTAC is working to identify ways of leveraging the ISSB Standards and the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations to strengthen the management of our climate-related risks and opportunities.



## 2.2 Waste Management

### 2.2.1 Management Approach

Majority of UTAC's waste consists of metal waste generated from residue material during the production process. We understand the importance of proper waste management, inclusive of the handling of hazardous waste from the production and assembly process. As such, we have developed strategies to control waste generation and to ensure that waste produced is treated and disposed of responsibly.

#### **Our efforts include:**

- Avoiding the generation of intractable waste
- Encouraging waste minimisation
- Encouraging waste reuse, recovery and recycling
- Regulating of the collection, treatment, and disposal of waste
- Monitoring and auditing the collection, treatment and disposal of waste
- Promoting and supporting educational and training programs around waste responsibility

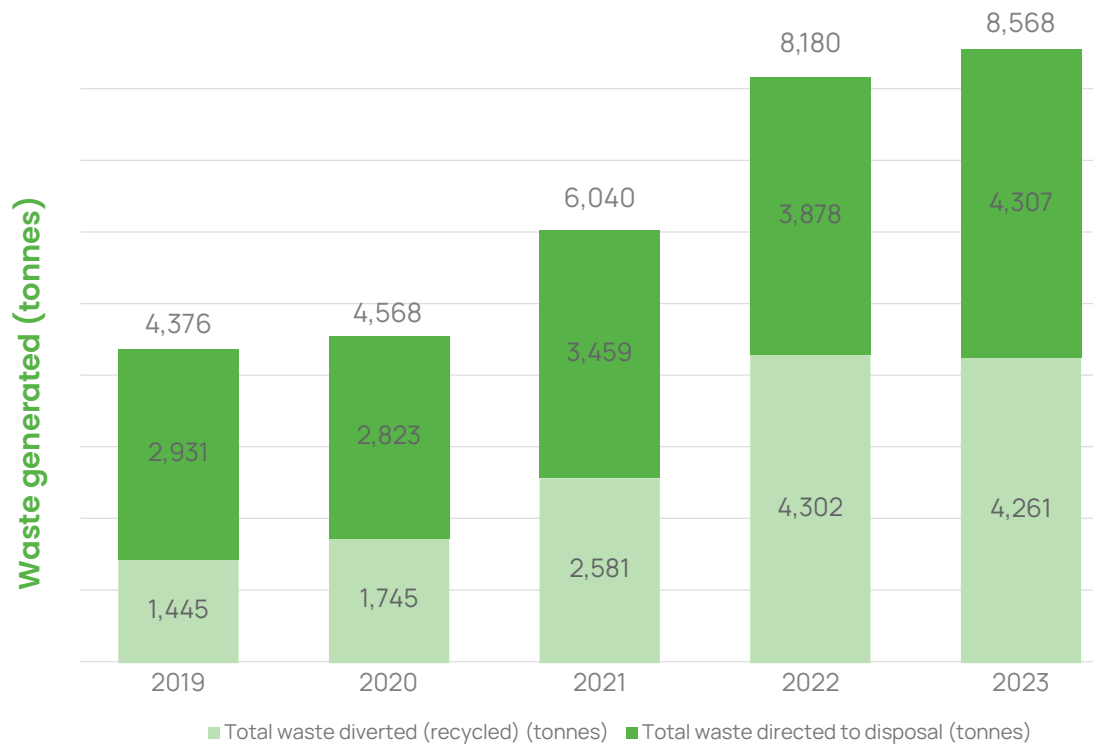
In the waste sorting process, we segregate waste according to its impact (hazardous and non-hazardous) and recovery or disposal options (disposed and recycled). This is further separated by types of recyclable waste, such as metal scraps, for ease for recycling. Our waste is handled by approved vendors authorised to transfer and treat waste with traceability evidence and records. The incineration and recycling of our waste are all handled off-site.

To ensure the responsible treatment, disposal, and reduction of waste from UTAC suppliers, all suppliers are required to adhere to waste and disposal requirements in accordance with our Environmental Management System (EMS) and Hazardous Substance Management System. This management system provides guidance for suppliers to have a system to manage the correct usage and disposal of all potentially hazardous chemical substances.

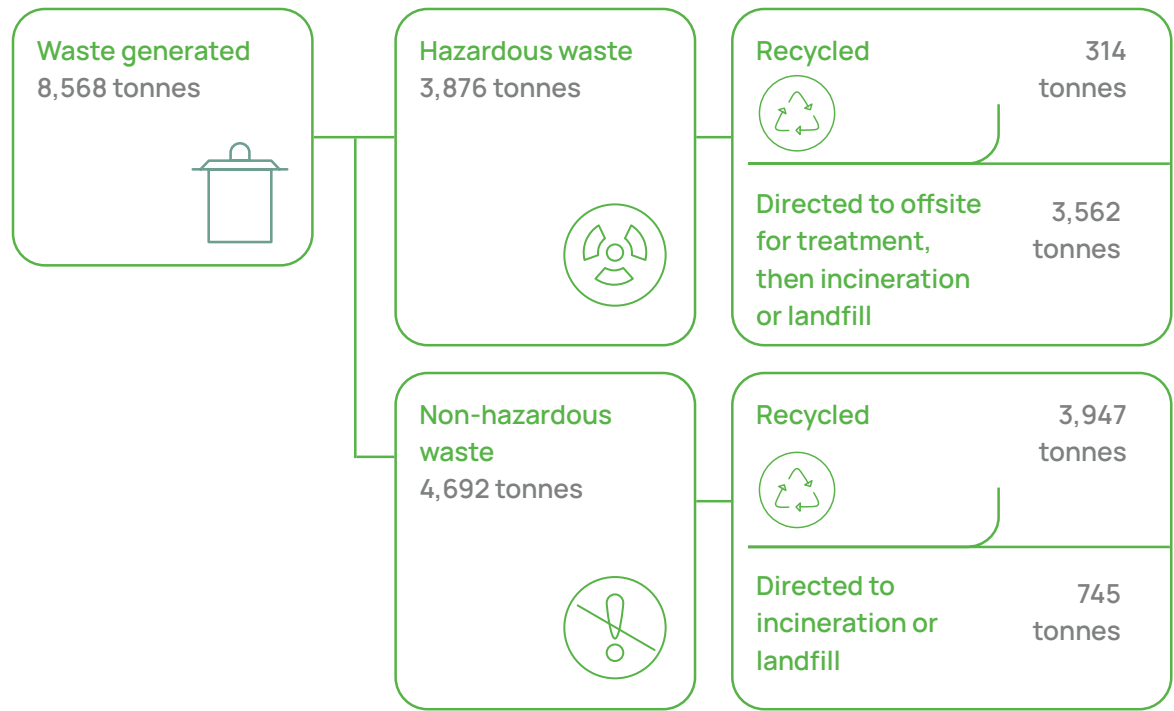
Through these efforts, UTAC seeks to protect both the environments we operate in and our local community resources by practicing responsible consumption and production and through our strict adherence to local regulations on waste management.

## 2.2.2 Performance and Initiatives

Trend of waste generation



Breakdown of waste generated and treatment



## Waste generated and treatment <sup>1</sup>

	2019	2020	2021	2022	2023
Total hazardous waste directed to disposal (tonnes)	2,014	2,203	2,353	2,978	3,562
Total hazardous waste diverted (recycled) (tonnes)	159	201	752	501	314
<b>Total hazardous waste (tonnes)</b>	<b>2,173</b>	<b>2,404</b>	<b>3,105</b>	<b>3,479</b>	<b>3,876</b>
Total non-hazardous waste directed to disposal (tonnes)	917	620	1,106	900	745
Total non-hazardous waste diverted (recycled) (tonnes)	1,285	1,545	1,828	3,801	3,947
<b>Total non-hazardous waste (tonnes)</b>	<b>2,202</b>	<b>2,165</b>	<b>2,934</b>	<b>4,701</b>	<b>4,692</b>
Total waste directed to disposal (tonnes)	2,931	2,823	3,459	3,878	4,307
Total waste diverted (recycled) (tonnes)	1,445	1,745	2,581	4,302	4,261
<b>Total waste (tonnes)</b>	<b>4,376</b>	<b>4,568</b>	<b>6,040</b>	<b>8,180</b>	<b>8,568</b>

Note

<sup>1</sup> Due to rounding to whole numbers, total figures may differ slightly from the sum of individual categories.

In 2023, UTAC generated 8,568 tonnes of waste. This was an increase of 5% from 2022 due to increased production volume, as well as evaluation of new chemicals. As UTAC grows, we aim to reduce our waste impact through our efforts in waste recycling. In 2023, our waste recycling decreased marginally from 4,302 tonnes in 2022 to 4,261 tonnes in 2023, bringing our waste recycled to 50% of total waste.



## 2.3 Water Management

### 2.3.1 Management Approach

Water is a vital resource used during the wafer sawing, wafer grinding and electroplating processes that take place in semiconductor assembly plants. The wastewater discharged contains various chemicals and other contaminants, which if left untreated, will pollute the environment.

UTAC places an emphasis on the management of used water as part of our commitment mitigating our environmental impact from the high level of water withdrawn and wastewater produced.

UTAC continuously explores ways to improve our water efficiency. Over the years, we have successfully implemented several water-saving initiatives. We have also invested in water recycling infrastructure. This has enabled us to recycle more than one-third of our process water, with the recycled water being repurposed for raw water intake of Ultra Pure Water System and other industrial needs, such as cooling, backwashing and cleaning activities.



UTAC treats all effluent discharge in compliance with environmental laws and regulations. We are committed to ensuring that water quality after treatment meets regulatory standards of the countries that our manufacturing sites operate in. Our monitoring process of wastewater discharge encompasses the monitoring of parameters for pollutants we seek to address, as well as parameters under permit requirements or applicable laws and regulations.

UTAC monitors our water withdrawal volume and water recycling rate against internal targets on a monthly basis. In 2023, we implemented performance measures across our Group operations to more effectively hold various functions accountable for the management of water withdrawal volume and recycling rate.

2.3.2 Performance and Initiatives

Total water withdrawal for the Group's operations was 3,358 ML in 2023; a 3% increase from 2022, with no water withdrawn from water stressed areas. However, our water withdrawal intensity increased by 6% to 2,049 cubic meters per million U.S. dollars in revenue (2022: 1,935 cubic meters per million U.S. dollars in revenue). The increase in total water withdrawal and water intensity from 2022 was largely due to the commencement of operations of a new factory, UTAC Yantai, and adjustments made to our manufacturing process flowrate requirements to enhance product quality. This increase is offset by water savings has achieved from several initiatives we have embarked on during the year.

Historic water withdrawal<sup>1</sup>

	2019	2020	2021	2022	2023
Total water withdrawn for operations (Megalitres)	2,920	2,752	3,189	3,268	3,358
Water withdrawal intensity (Megalitres/revenue in million U.S. dollars)	4.113	3.186	2.168	1.935	2.049

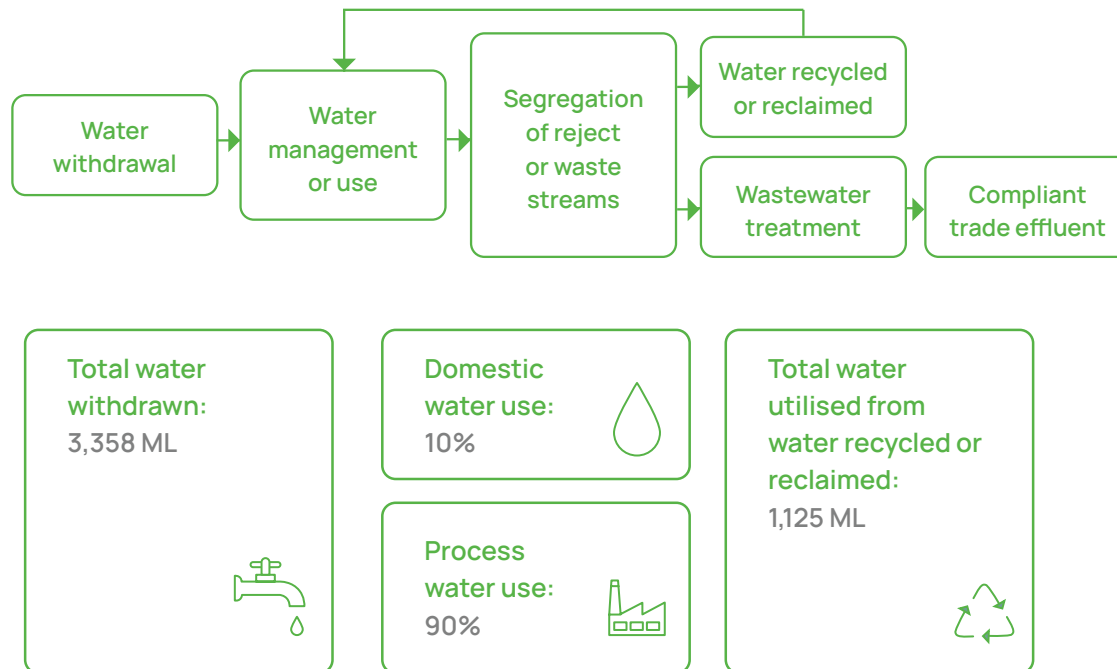
<sup>1</sup> Note  
Water withdrawal data was obtained from water bills supplied by local providers and the municipal authorities.

UTAC has explored several methods of water conservation. Listed below are a selection of initiatives we have embarked on in 2023:

Manufacturing site	Water saving initiative	Impact	Status
UTAC Thailand	Adoption of Reverse Osmosis with improved water efficiency	Enabled additional volume of wastewater to be treated and reused for other industrial needs. This yielded savings of 12,600 cubic meters of water in 2023.	Completed
UTAC Dongguan	Investment in new detection technology tool to detect leakage of water pipes	UTAC Dongguan invested in a new detection technology tool which enabled the effective detection of leakage points and prompt repairation of water pipes. This has avoided an estimated volume of 90,000 cubic meters of water wastage in 2023.	Completed

Manufacturing site	Water saving initiative	Impact	Status
UTAC Dongguan	Adoption of Reverse Osmosis membrane with higher water efficiency	By replacing a Reverse Osmosis membrane with one that has a higher water efficiency, UTAC Dongguan has successfully yielded savings of 86,400 cubic meters of water in 2023.	Completed
UTAC Singapore	Wastewater reclamation from backgrinding and sawing processes	UTAC Singapore successfully recovered wastewater from backgrinding and sawing processes, which yielded savings of 39,876 cubic meters of water in 2023.	Completed

### Water Treatment process



UTAC remains committed to implementing more water conservation initiatives and exploring investing in new technologies, such as the reclamation of other potential wastewater streams to bolster our water recycling efforts and improve water efficiency in our facilities.

## 2.4 Community Engagement

UTAC aims to build a platform to improve awareness amongst our employees and educate them on the importance of environmental protection and the adoption of sustainable conservation practices. We hope to also share this knowledge and bring a positive impact beyond our organisation by encouraging our employees to engage with their families and communities.

### Initiative:

#### UTAC Dongguan Earth Day Celebration

To celebrate the 53rd anniversary of Earth Day, UTAC Dongguan organised a “work play” event in April. With the theme “Work, Play”, the aim of the event was to promote environmental awareness among employees and their families. After being provided with the necessary equipment, participants teamed up to clean up a road at Bay Park. Following the clean-up efforts, participants gathered at the park activity hall for bonding activities. We encouraged employees with children to use flowers from the park to decorate recycling bags which served as door gifts for the children.



### East Coast Park Clean-Up by UTAC Singapore

The CSR Committee and Publicity Committee organised a mass clean-up at East Coast Park in July 2023. Despite adverse weather conditions, eighty-six UTAC employees joined in the effort. UTAC's mascot, Captain U was also present. Depicting UTAC's vision, values, spirit and strength, Captain U helps to guide the behaviours and actions of our business and people towards achieving our goals. UTAC's employees gathered 54 kg of litter and enhanced the cleanliness of the park for all to enjoy. Through initiatives like this, UTAC seeks to build a sense of responsibility amongst our employees towards the environment.

### Deputy Governor of Bangkok visits UTAC Thailand

In November 2023, Mr. Chakkapan Phewngam, Deputy Governor of Bangkok, and Bang Na District officials visited UTAC Thailand's premises to better understand UTAC's waste management processes which has enabled zero landfilled domestic waste at UTAC Thailand. Other processes explored included our waste collection and separation of general waste and hazardous waste processes. UTAC Thailand's General Manager, Dr Nathapong Suthiwongsunthorn, represented the executives and employees in welcoming and guiding the group.

### Tree-planting with Wellgrow Industrial Estate in UTAC Thailand

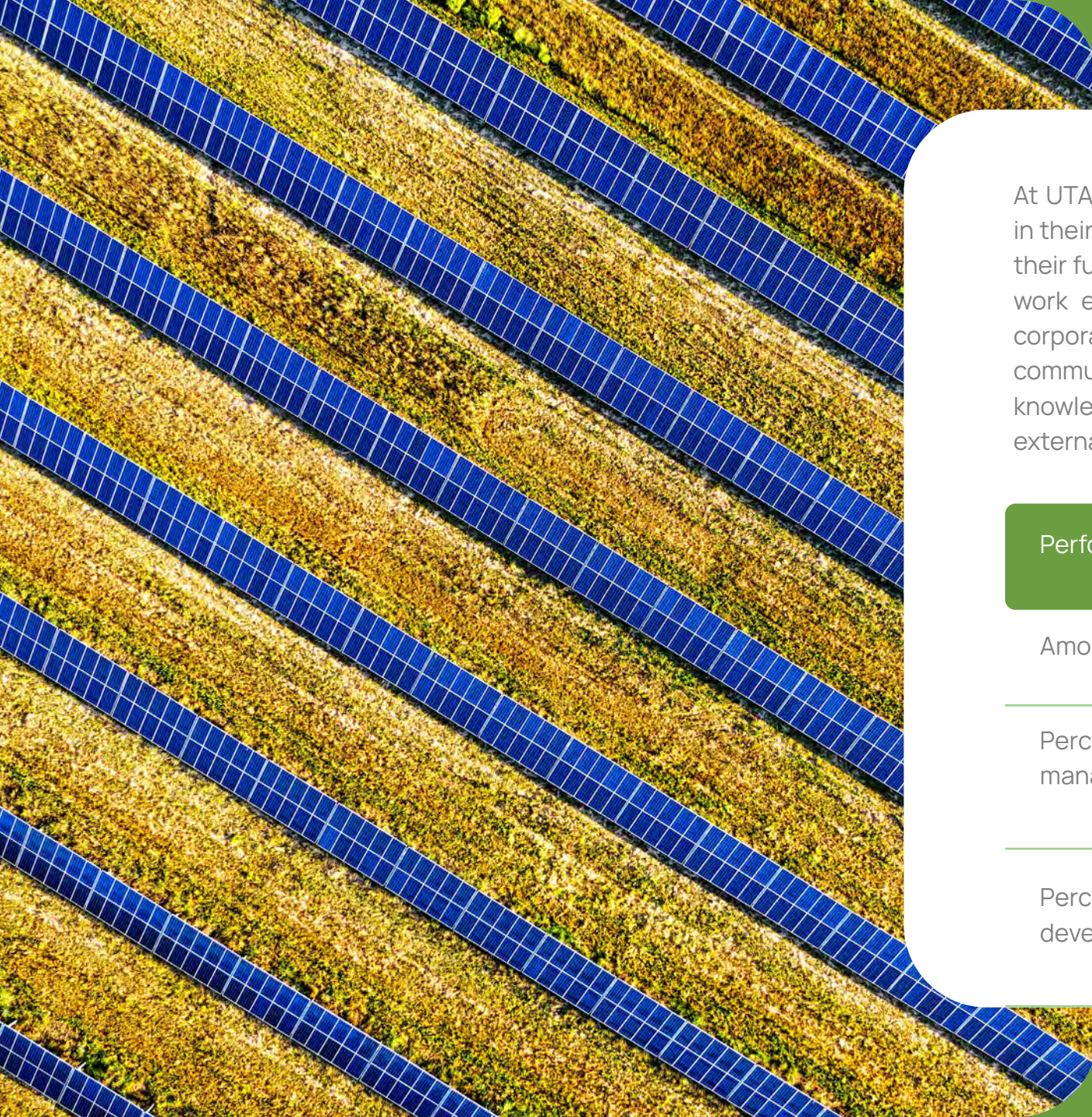
In July 2023, on Thailand's National Tree Day, UTAC Thailand participated in a tree-planting initiative in Chachoengsao province led by Wellgrow Industrial Estate. UTAC supports tree-planting initiatives as part of our commitment to enhancing the sustainability of the communities we operate within and will continue to do so in the future.





# People and Community

# 03.



At UTAC, our people are key to our success. We are committed to investing in their safety, growth and development to enable all our employees to reach their full potential. We are also dedicated to creating a fulfilling and enriching work environment where our employees are empowered as responsible corporate citizens. As part of this, we take pride in our contributions to the communities we are situated in through our volunteering, donation and knowledge sharing efforts. UTAC will continue to work with our internal and external stakeholders to enhance our efforts and impact in the years to come.

Performance highlights

Amount of money raised for charitable causes	US\$64,669
Percentage of women in middle and senior management	33%
Percentage of employees engaged in learning or developmental training	100%

# 3.1 Occupational Health and Safety

## 3.1.1 Management Approach

At UTAC, we believe that the health and safety of our employees is vital to our operations. We have instituted an Occupational Health and Safety (OHS) management system that enforces workplace health and safety practices across all our operations. Our management system is ISO45001-certified and has been developed in conjunction with the RBA framework and Occupational Health and Safety Advisory Services (OHSAS).

Our management system undergoes an ISO45001 re-certification every three years and an annual surveillance audit. Our RBA framework is audited bi-annually and we also conduct annual internal audits on our health and safety work practices.

To adequately safeguard health and safety across our operations, we strongly encourage our employees to report any concerns that may compromise their safety and well-being, inclusive of hazardous situations or unsafe behaviour, to their respective managers, safety leaders, or through other feedback channels like our Anonymous Communication Form.

As outlined in our strict non-retaliation policy, our management system seeks to ensure that workers feel empowered to raise concerns or halt work should they feel unsafe.

## 3.1.2 Monitoring of Work Practices and Hazard Risk Identification and Assessment

Across all business units, we ensure that regular inspections and reviews of work practices are conducted to adhere to health and safety requirements. In addition, hazard identification and assessment are carried out in accordance with risk management procedures.

Through such assessments, owners are required to identify risks and assess them based on the likelihood and severity of potential hazards. Depending on the risk level, mitigation actions are implemented as needed to reduce the danger to our workers.



Some hazard identification measures include:

- 01 Monthly workplace inspections to identify potential hazards, such as slippery floors, faulty equipment, or blocked emergency exits.
- 02 Hazard reporting process for employees to report hazards they encounter in real-time, such as broken machinery or exposed electrical wiring.
- 03 Pre-site inspection before commencing hazardous tasks or work processes to identify potential hazards and develop controls to mitigate risks, such as lifting heavy objects or working at heights.
- 04 Permit to work system that requires approval after the review of procedures, risk assessment and competency validation.

UTAC has also implemented risk assessment procedures inclusive of assessing the risks associated with handling hazardous chemicals in the workplace, including evaluating exposure levels, implementing control measures, and providing appropriate personal protective equipment.

In the event of health and safety incidents, UTAC requires the creation of an 8D report - a structured approach to problem-solving in which a team is formed and commissioned to investigate the underlying causes of a manufacturing issue. This is done to understand and address the issue through Corrective and Preventive Actions (CAPA) and validate its effectiveness. All incident cases are reviewed by site leadership and shared during the CEO and General Managers townhall. The lessons learned from incidences are shared across all UTAC sites to prevent future occurrences.

UTAC seeks to make continuous improvement in our health and safety practices. This involves regularly reviewing key safety performance metrics such as incident rates and compliance with safety procedures to identify trends and areas for improvement. One enhancement we have made is the establishment of a QR code system for employees to report safety concerns or near-miss incidents requiring the use of the First Aid Box. This protective measure aims to address minor incidents and mitigate escalations. We also conduct regular incident response drills such as fire drills and evacuation exercises to test the effectiveness of emergency procedures.

In addition, UTAC monitors the air quality of all working areas and the surrounding environment. These processes have been reviewed by both internal and third-party auditors.

UTAC has also worked to improve our monitoring processes by tracking key safety performance metrics, including the Total Recordable Case Rate

(TRCR) and Days Away, Restricted or Transferred (DART). The TRCR is a crucial indicator that measures the total number of recordable incidents per 100 full-time employees over a specified period. These incidents include any work-related injuries or illnesses that require medical treatment beyond first aid, loss of consciousness, restriction of work or motion, or transfer to another job.

The DART rate, on the other hand, specifically focuses on cases that result in more significant impacts on employees' ability to work. This includes incidents that lead to days away from work beyond the day of injury or onset of illness, days of job transfer, or restricted work activity.

By closely monitoring these metrics, UTAC gains valuable insights into the frequency and severity of workplace incidents, allowing us to identify trends and implement targeted interventions to enhance safety. In addition to tracking TRCR and DART, UTAC has introduced several complementary measures to bolster our safety monitoring efforts. These include:

**Behaviour-Based Safety (BBS):** Implementation of a Behaviour-Based Safety program to focus on observing and improving employees' safety behaviours. This involves regular observations, feedback sessions, and coaching to reinforce safe practices and address unsafe behaviours. By fostering a culture of safety, we aim to reduce the likelihood of incidents and promote proactive safety awareness.

**Near Miss Reporting:** Encouraging employees to report near-miss incidents, which are potential hazards that could have resulted in injury or illness but did not. By analysing these reports, UTAC can proactively address risks before they lead to actual incidents.

**Root Cause Analysis:** Conducting thorough investigations of all recordable incidents to enable UTAC to determine their root causes. This allows us implement corrective actions to prevent recurrence and continuously improve our safety protocols.

**Safety Audits and Inspections:** Performing regular safety audits and inspections to ensure compliance with safety standards and identify areas for improvement. These audits are conducted by both internal teams and external experts to provide a comprehensive assessment of our safety practices.

**Employee Training and Engagement:** Providing ongoing safety training and fostering a culture of safety where employees are encouraged to actively participate in safety initiatives. This includes safety committees, suggestion programs, and recognition awards for exemplary safety practices.

**Health and Wellness Programs:** Implementing health and wellness programs that focus on preventing injuries and illnesses through ergonomic assessments, fitness programs, mental health support, and regular health screenings.

**Safety Month Initiatives:** Organising an annual Safety Month dedicated to raising safety awareness through engaging activities and interactive booths. During Safety Month, employees participate in safety-themed games, workshops, and demonstrations that reinforce key safety messages. These activities not only educate but also foster a sense of community and collective responsibility for safety.

### 3.1.3 Worker Participation, Consultation and Communication on Occupational Health and Safety

To ensure employee participation and awareness of our health and safety processes, UTAC has established a Health and Safety Committee comprised of representatives from different departments and roles to provide a platform for employees to raise concerns, suggest improvements, and play a larger role in matters pertaining to health and safety.

#### 3.1.3-a Consultation

Close consultation with our employees allows us to draw from their knowledge and experience of the work environment to best inform our control measures. In addition, we engage workers as we investigate incidents so we may gather firsthand accounts, insights, and perspectives of the events surrounding an incident, therefore contributing to a more comprehensive investigation.

#### 3.1.3-b Communication

UTAC has launched campaigns and programs to increase overall safety awareness among employees. This includes emphasising the importance of maintaining a clutter-free work environment (6S) and disseminating safety advisories via U-Comm channel, a channel to broadcast company message.

We have also introduced a quarterly Safety Champion award, which is based on the quality of submitted reports on unsafe conditions.

In addition to these efforts, UTAC conducts safety walk-about with workers and management to observe work practices and identify potential hazards. We also engage in dialogue to help formulate solutions to safety concerns and identify areas for improvement.

To ensure that our employees and contractors are familiar with the health and safety guidelines in place, UTAC conducts awareness-raising initiatives communicating safety practices, procedures and regulations using posters, newsletters, emails and other channels.

### 3.1.3-c Health and Safety Training

UTAC conducts training and awareness programmes to increase health and safety awareness. This includes health and safety training for new hires, annual refresher trainings, and a safety induction course for contractors and vendors.

UTAC has increased our safety awareness training sessions from once to twice a year. These sessions emphasise topics, such as safety awareness, the importance of following safe work procedures, the dangers of bypassing safety interlocks, and the risks of distracted walking, among others. This is intended to ensure that all workers are aware of potential hazards and understand the importance of adhering to safety protocols.

### 3.1.3-d Emergency Preparedness

To ensure emergency preparedness, UTAC conducts emergency response planning, business continuity planning, and has created a Company Emergency Response Team (CERT) in accordance with regulatory requirements. To ensure that staff are well-equipped to respond to emergencies, UTAC holds emergency response trainings related to fire and hazardous materials in addition to table-top exercises. We also hold fire drills in collaboration with local fire stations.

### 3.1.3-e Occupational Health Services – Promoting Worker’s Health

At UTAC, we value the welfare of our employees and strive to support employee wellness through a range of different programmes. We provide health insurance for employees and regular medical examination for workers at risk of exposure to hazardous substances. For employees staying in the company’s dormitories, UTAC provides a free healthcare consultation hotline, which is publicised in the dormitory common areas. We offer on and offsite panel clinics for employees who require medical attention. UTAC also provides recreational spaces, a gym and nursing rooms for employees.

Through our internal assessments, UTAC identified mental wellbeing and stress as key areas to be addressed. In response, UTAC launched a new mental well-being framework in July 2023. This framework encourages

employees to connect with each other, creating a network that prevents isolation. We also aim to support our coworkers who have faced mental health challenges and have just returned to the workplace by encouraging the use of our counselling services and giving them a supportive environment they can thrive in. We plan to increase such efforts through education and participation in charity events.

### 3.1.4 Supplier and Contractor Engagement on Health and Safety

UTAC conducts occupational health and safety audits in alignment with the RBA framework and standards for both suppliers and contractors. Our aim is to assess their compliance with our occupational health and safety standards. Furthermore, we expect all suppliers and contractors to adhere to environmental health and safety standards, as well as RBA standards, as specified in the terms and conditions.

### 3.1.5 Performance and Initiatives

In 2023, UTAC observed no fatalities and ten recordable work-related injuries. All incidents have been reported to UTAC management for evaluation, following which UTAC undertook both interim and root-cause preventive action. Based on the information at hand, UTAC believes that most injuries have been caused by inadequate follow-through of the UTAC's safety

protocols. In addition, UTAC has noted the improvement needs of operating equipment and has enhanced controls over equipment usage guidelines to increase workplace safety.

UTAC continues to do our best to ensure our employees are trained and equipped with the necessary safety equipment and knowledge to ensure their safety. We intend to achieve this through conducting annual tests of occupational hazards through a trusted third-party. We will also ensure the regular review of our operations and internal processes through authorised auditors. By proactively identifying and addressing potential hazards as they arise, we strive to create a safe and secure environment for our employees.



## 2023 Incident Report

	Performance
<b>OSHA Total Recordable Case Rate (TRCR)</b> The rate of total non-fatal injuries and illnesses for the calendar year reviewed.	0.080
<b>Days Away, Restricted or Transferred (DART) Rate</b> Cases which involve days away from work beyond the day of injury or onset of illness, days of job transfer or restricted work activity or both	0.057



	UTAC Employees	Non-Employee Workers**
Number of fatalities	0	0
Number of high-consequence work-related injuries (excluding fatalities)	0	0
Number of recordable work-related injuries	10	0
Rate of fatalities	0	0
Rate of high-consequence work-related injuries	0	0
Rate of recordable work-related injuries*	0.056	0
Number of hours worked	35,804,560	1,047,360

\* Rate is calculated by Number of incidents/ Number of hours worked x [200,000]

\*\* All workers who are not UTAC employees but whose work and/or workplace is controlled by UTAC

Initiative:

### UTAC Dongguan Safety Week

In our effort to enhance employees' safety awareness, UTAC Dongguan held a safety week in the last week of June to commemorate China's safety month. The theme of the event was "Emergency" with the aim to equip employees with emergency firefighting knowledge and skills for evacuation. To facilitate this, an escape room activity was held, with virtual reality headsets creating an immersive and interactive experience to simulate an actual fire-related emergency to train participants.

Initiative:

### Employee Health-related Initiatives

UTAC Malaysia conducted two health talks in November 2022 and February 2023. The first talk was centred on diabetes prevention in conjunction with Mahkota Medical Centre (MMC) Melaka. Led by Mrs. Aidah Binti Ibrahim from MMC. As part of this initiative, 20 UTAC Malaysia employees completed glucose check-ups.

The second health-related initiative was focused on common orthopaedic conditions (slipped discs), common surgery complications and cancer prevention. In addition to talks from Dr. Warith and Dr. Noorharisman from Putra Specialist Hospital Melaka, medical booths were set up to provide free basic check-up services such as blood pressure checks, glucose, and cholesterol testing.

Initiative:

### Fostering a Culture of Awareness and Health

In 2023, UTAC Singapore implemented a series of safety engagement programs aimed at fostering a culture of safety and well-being among employees. December was marked as the Workplace Safety and Awareness Month, featuring a variety of interactive games and activities designed to elevate safety awareness across the workplace. Additionally, we introduced the quarterly Safety Champions Award, recognising and rewarding the top three employees who submitted the best reports on unsafe conditions and innovative safety proposals. To further support our employees' overall well-being, we also hosted a Mental Well-Being Talk, focusing on the importance of good sleep management. These initiatives collectively underscored our commitment to creating a safer and healthier work environment for our employees.

### Award for our Workplace Health and Safety Management in UTAC Thailand



We are proud to announce that our efforts to improve the health and safety of the workplace have earned UTAC recognition. For the fourth consecutive year, our Thailand facilities have been awarded the Gold Class Award in the Zero Accident Campaign by the Ministry of Labour, as well as the Thailand Safety Management Excellence Award of 2023 for the second consecutive year.

## 3.2 People Development

### 3.2.1 Management Approach

At UTAC, we believe that our employees are vital to our continued success, as such, we are committed to recruiting, retaining and cultivating talented individuals. We aim to provide our staff with fruitful careers through upskilling opportunities and rewarding career opportunities. We strive to maintain a conducive and fair working environment where all are empowered to grow and thrive.

### 3.2.2 Employee Benefits

As part of our efforts to attract and retain high-calibre talent, UTAC offers competitive and fair compensation and a comprehensive range of benefits to all full-time employees. This includes life and healthcare insurance, paid vacation leave, parental leave and disability and invalid coverage, retirement provision, allowances, and performance-based bonuses. Additionally, UTAC offers stock options based on employee grade, enhancing our long-term incentive plan.

In the spirit of transparency, the remuneration process is communicated to employees as part of their introduction to the organisation. UTAC's remuneration committee reviews the bonus plan and payout on an annual basis. We also conduct an annual review of wages, guided by the UTAC compensations and benefits guidelines.

In terms of collective agreements, in countries where collective agreements are applied, the general terms of benefits are applied consistently across all employees regardless of their inclusion in the collective agreements. In 2023, 4.8% of total employees are covered under collective agreements.

UTAC appreciates the contributions of our employees and is dedicated to recognising and celebrating accomplishments. We do this through our Employee Recognition Award Policy which governs the establishment of programs and practices to recognise and reward our employees' achievements.

## Introductory briefing by United Workers of Electronics and Electrical Industries (UWEEI) in UTAC Singapore

In order to foster a constructive and collaborative relationship between the company and our people, UTAC Singapore signed Form B with United Workers of Electronics & Electrical Industries (UWEEI) to demonstrate our commitment to engage in meaningful negotiations and dialogue to reach mutually beneficial outcomes.

We recognise that the Union affirms our belief in empowering employees with a strong and collective voice in matters that impact their working lives. We also firmly believe that collective bargaining provides a platform for open communication and an opportunity to cultivate passionate people.

To introduce the Union, we held an introductory briefing on 21 July 2023 in hybrid mode, with an onsite event at USG1 and an online live event. During the event, the speakers emphasised the importance of fostering a strong tripartite partnership, highlighting its role in creating a harmonious working environment that boosts productivity and benefits the employees, the Company and Singapore's economy.

The benefits (4 Ps) of a union membership as follows:



**Protection** entails collective bargaining, union's insurance coverage, grants and scholarships.



**Placement & Progression** focuses on promoting training (with subsidy) for both upskilling or multiskilling to improve employability and career growth.



**Privileges** provides members with discounts and deals with various participating merchants

As part of the unionisation process, UWEEI will conduct a poll to vote on the establishment of a Branch Committee. This committee will comprise members from UTAC, with some of them taking up important positions, such as Chairman, Secretary, Treasurer, and other positions. The primary responsibility of this committee will be to represent USG employees in all industrial relations matters, working in collaboration with UWEEI.

In the coming months, UWEEI will be organising road shows at UTAC Singapore sites to promote and recruit new members. Concurrently, UTAC Singapore and UWEEI will be engaging in negotiations regarding employees' terms and conditions of employment. Once an agreement is reached, these terms will form the Collective Agreement (CA). With our well-established and longstanding relationship with UWEEI, we are confident that we can reach a CA that will benefit all parties involved. UTAC looks forward to continuing our collaboration to foster an even more effective and harmonious tripartite relationship for the years to come.

### 3.2.3 Training and Education

To ensure continued growth and development, UTAC strives to create opportunities for training and development for our employees. In the rapidly developing semi-conductor industry, we believe that it is imperative for employees to continuously upskill and remain future-ready. With this in mind, UTAC has tailored training programmes for every stage of our employees' career paths.

This begins during our onboarding process, where training is provided for new hires to familiarise themselves with UTAC's culture, policies and principles. Our online platform is a notable avenue for accessible learning. In addition, UTAC holds regular on-the-job training and develops annual training plans to keep employees informed and enable career and leadership

development. Where applicable, external training providers are engaged to provide leadership development and technical courses.

Some examples of this include:



In-house training on soft skills such as performance management, supervisory skills, managing disciplinary procedures, interview selection, feedback and leadership



External training on leadership and development (Based on Stephen Covey's "7 Habits of Highly Effective People", extended to Essential Roles of Leadership, Speed of Trust, Leadership Coaching, and Insight Discovery



External training on technical skills development



Training on the Six Sigma Define, Measure, Analyse, Improve and Control (DMAIC) model

In 2023, 100% of our employees were engaged in some form of learning and development training. With regards to employee development, we provide employees with annual performance reviews, which serve as a platform for discussion relating to career aspirations and trajectories. In these sessions, we encourage employees to set performance goals, and provide them with reviews and feedback on their performance in the preceding

year. The performance reviews also provide our management with the opportunity to identify areas for improvement in our training and development programmes to meet the learning aspirations of our employees. In 2023, all employees from the “Executive” grade and above received performance and career development reviews three times a year. Non-executive performance and career development reviews are conducted annually.

#### Initiative:

### Team-building Workshop at UTAC Yantai

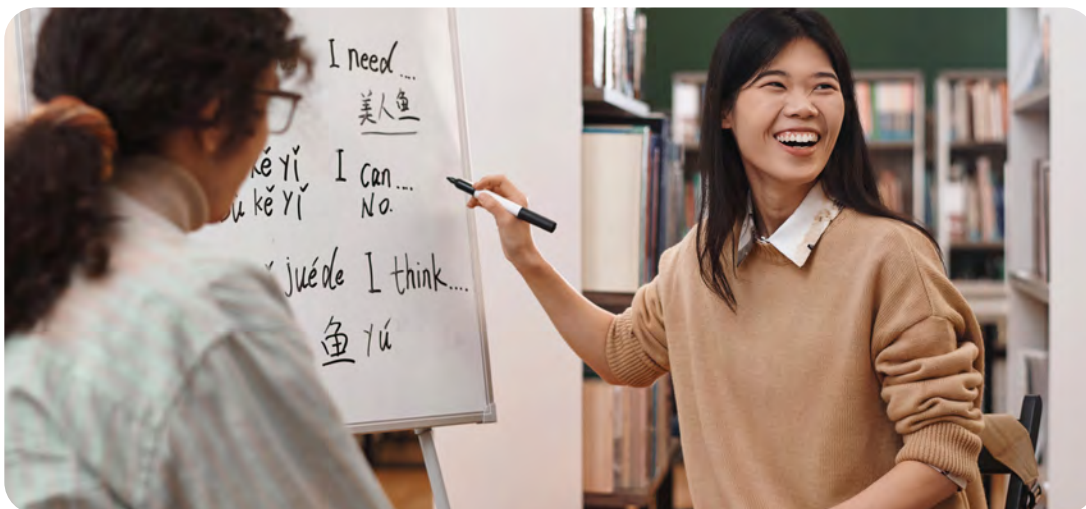
The workshop took place in mid-September with active participation from all executive level and above staff of UTAC Yantai. The workshop consisted of three activities – a sharing on ‘Seven Good Habits,’ recognition of team performance, and a soccer competition. Such events help to cultivate collaborative skills among participants.

As part of efforts to instil learnings from the ‘Seven Good Habits’ within UTAC Yantai workforce, UTAC’s management encouraged each habit ambassador to share insights and reflections on challenges encountered in their roles. The interactive sessions provided colleagues with opportunities for open discussions and examples of practical applications of the ‘Seven Good Habits.’ The training was well-received, with employees reflecting an improved understanding of habits they can incorporate into their daily work and lives.

#### Initiative:

### Cardiopulmonary Resuscitation (CPR) and Emergency Preparedness Training at UTAC Malaysia

There were several training and development programmes conducted internally with the aim to equip employees with the abilities and knowledge to perform their work effectively. A total of twenty-two employees were trained in First Aid Training, including how to treat injuries and perform CPR. All participants passed their tests, and are qualified to provide assistance in the event of an emergency. Another training was held to help the employers develop an emergency response plan that will meet the specific needs of the business. The programme trains Emergency Response Team members to handle a variety of emergencies by developing an Emergency Response Plan (ERP), understanding Emergency Procedures, and implementing an Incident Command System (ICS) during a disaster. This exercise was supervised by the Fire and Rescue Team and a Building Evacuation (Fire Drills) exercise involving the shift workers was conducted at the end of programme. A total of 24 employees completed a training. They learned the requirements set under the American National Standards Institute (ANSI) standard in the process of design, production, assembly, processing, packaging, testing, and maintenance. This will help to ensure that all necessary standard operating procedures (SOPs) are always complied with.



Initiative:

## Language Upskilling at UTAC Malaysia

The 3-month Mandarin course (September to November 2023) sought to enable the selected employees to communicate in Mandarin at a basic level to facilitate social interactions and official affairs. At the end of the course, participants are expected to start communicating in basic Mandarin using the Hanyu Pinyin (Chinese phonetic characters) and materials learned. All forty participants finished their respective classes on 7th November 2023. With this as a starting point, UTAC hopes that participants continue to develop their skills to enable fruitful exchanges.

Initiative:

## Emerging Leader – First Time Leadership in UTAC Singapore

In 2023, UTAC Singapore introduced a new leadership program for our emerging leaders who have progressed to managerial grade within the past two years. The program aims to help the selected individuals discover what it takes for leaders to lead successfully.

Facilitated by Daniel Lee, the author of “First Time Leadership”, the program unfolded over two sessions from September to November 2023. During the workshop, Daniel shared case studies from his research and interviews with 220 leaders worldwide, focusing on the key concepts of effective leadership including purposeful collaboration, taking ownership, cultivating self-awareness, engaging in 1-on-1 conversation and providing feedback on timely basis.

The sessions included a range of individual and group activities to allow participants to hone skills in leadership, emotional intelligence and effective communication.

The leadership program sought to equip participants with useful skills and provide opportunities for continuous growth and development for UTAC’s future leaders.

# 3.3 Diversity and Inclusion

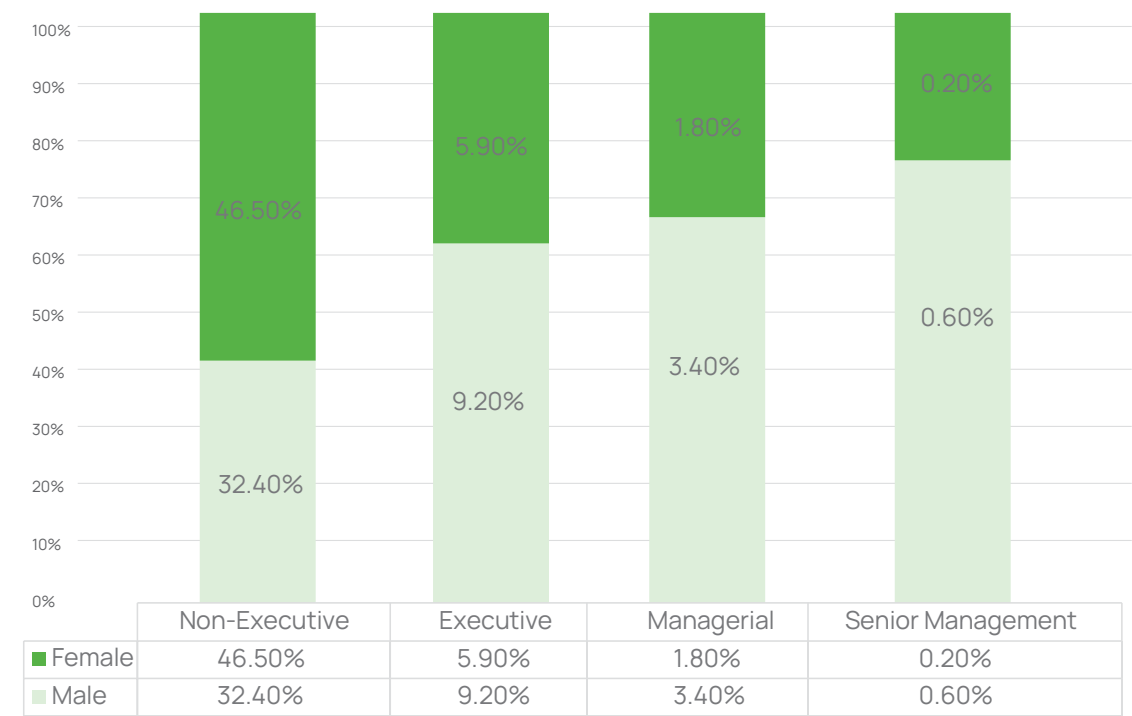
As a global organisation with operations in various regions, UTAC celebrates the diversity in our workforce and strives to create an open and inclusive workplace. Our employees are expected to abide by the principles of fairness and equality outlined in our Code of Conduct. In line with this, UTAC has a zero-tolerance policy for discrimination and harassment.

UTAC is committed to providing equal opportunity for employees and applications in areas relating to recruitment, hiring, training, promotions, compensations, benefits, and social programmes. Opportunities are extended to staff on a merit basis, regardless of gender, race, colour, ethnicity, national origin, age, disability, sexual orientation, marital status, religion, or any other characteristic protected by regulation or local law. Our approaches are enshrined in our Recruitment Policy, which outlines the guidelines and procedures relating to recruiting new employees. Other related policies include our Workplace Harassment and Discrimination Policy and our Equal Employment Opportunity (EEO) policy.

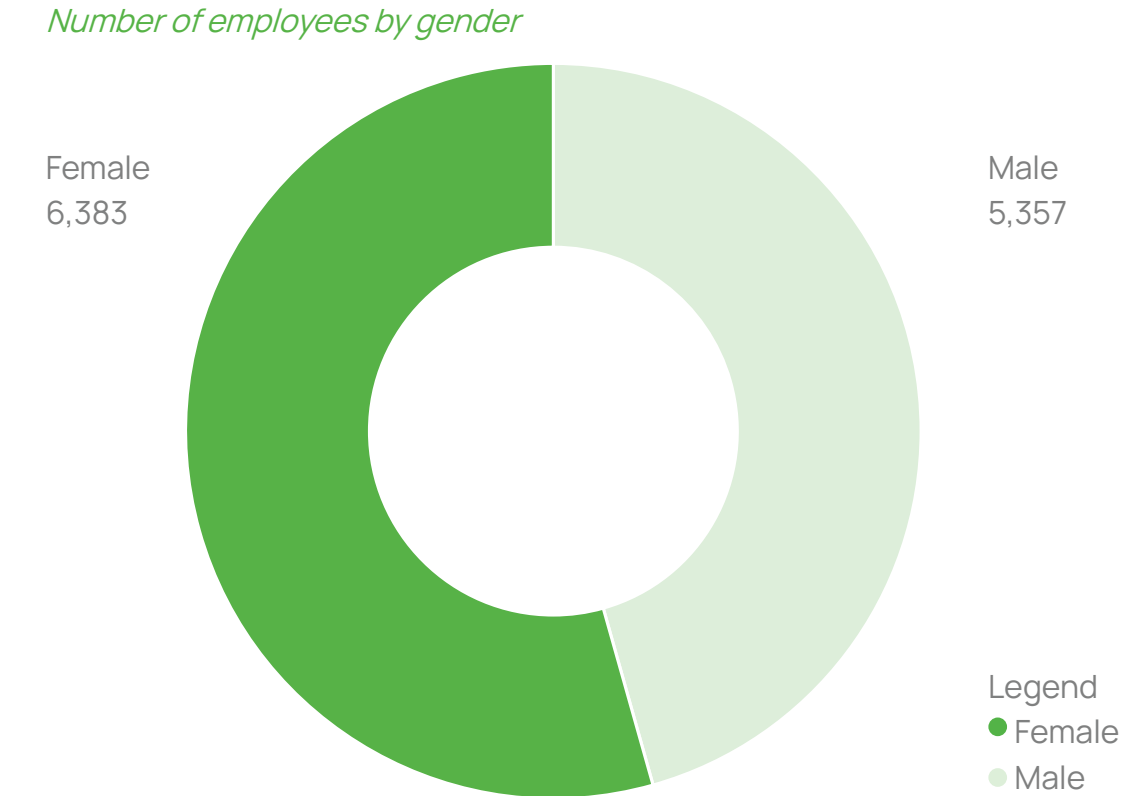
To ensure that our principles are embodied by the organisation, UTAC's HR Department oversees the various Discrimination, Harassment and Retaliation Prevention Policies. It also handles incident management relating

to discrimination and/ or harassment. Our hotline and anonymous online form provide avenues to raise whistleblowing concerns, which UTAC thoroughly investigates. UTAC seeks to resolve all discrimination cases brought to our attention and is committed to taking appropriate remedial measures based on the investigation outcome. Our procedures undergo periodic reviews to ensure adequate measures are in place safeguard our employees and organisation.

Percentage of employees per employee category by gender



From a gender diversity perspective, we recognise that women are largely underrepresented across the semiconductor industry, to play our part in addressing this disparity, UTAC has made concerted efforts to advance gender equality in our recruitment processes and cultivate an inclusive and safe company culture.



UTAC understands that more needs to be done to ensure that women have equal opportunities for career advancement within the organisation. To enable this, UTAC will continue to promote policies and initiatives that enable greater diversity, equity, and inclusion across the organisation.

*Employees by region and by gender*

Region	Male	Female
USA	14	9
Europe	7	4
Japan	5	3
China	1,405	700
Southeast Asia	3,926	5,667
<b>Total</b>	<b>5,357</b>	<b>6,383</b>

*Number of employees by employment contract*

	Permanent	Temporary	Total	Percentage of headcount by gender (%)
Male	5,340	17	5,357	46
Female	6,365	18	6,383	54
<b>Total</b>	<b>11,705</b>	<b>35</b>	<b>11,740</b>	<b>100</b>

*Percentage of employees per employee category by age*

	Below 30 years old (%)	Between 30-50 years old (%)	Over 50 years old (%)	Total (%)
Non-executive	34.3	41.6	3.0	78.9
Executive	3.6	9.8	1.7	15.1
Managerial	0.0	3.7	1.5	5.2
Senior management	0.0	0.2	0.6	0.8



### Recruitment in 2023 by gender and age group

	Male		Female	
	Headcount	Recruitment rate (%) <sup>2</sup>	Headcount	Recruitment rate (%) <sup>2</sup>
Below 30 years old	499	28.5	747	27.7
Between 30-50 years old	349	11.4	260	7.6
Over 50 years old	35	6.6	26	9.8

### Turnover in 2023 by gender and age group

	Male		Female	
	Headcount	Turnover rate (%) <sup>2</sup>	Headcount	Turnover rate (%) <sup>2</sup>
Below 30 years old	860	49.1	1,049	38.8
Between 30-50 years old	920	29.9	911	26.7
Over 50 years old	89	16.7	56	21.1

### Number of workers who are not employees by gender

	Male	Female
Managers	1	1
Security, cleaners, machine operators	146	164
<b>Total</b>	<b>147</b>	<b>165</b>

### Parental leave by gender in 2023

	Male	Female
Number of employees taking parental leave in 2023	65	235
Number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work	52	208

#### Note

<sup>1</sup> Headcount is accurate as of 31 December 2023.

<sup>2</sup> Total headcount by gender and age group as of 31 December 2023 had been used to calculate the recruitment rates and turnover rates.

*Average hours of training per year per employee by category*

Employee category	Number of hours on average per employee (hrs)
Non-executive	25.7
Executive	27.9
Managerial	9.7
Senior Management	9.9

*Average hours of training per year per employee by gender*

Employee category	Number of hours on average per employee (hrs)
Male	36.0
Female	15.9 <sup>1</sup>

*Note*

<sup>1</sup> The majority of our female workforce is based at our Thailand site, where the average training hours per employee is comparable across both genders. Whereas the workforce at our China site is predominantly male, and has higher average training hours per employee compared to other sites.



## 3.4 Community Impact

### 3.4.1 Management Approach

UTAC is passionate about leveraging our business to create a positive impact in society and enable enduring economic growth. In our role as a responsible corporate citizen, UTAC believes it is our responsibility to cultivate meaningful relationships and contribute to the communities in which we operate.

In line with this, we have undertaken a range of community engagement and CSR initiatives at both the group and business unit level. Our efforts include fundraising, sponsoring humanitarian projects, supporting education and skills development and enabling staff volunteerism in the community.

Through the efforts of the entire organisation, UTAC was able to raise almost 65,000 U.S. dollars for causes that range from supporting relief in the Gansu Earthquake area, to donating to low-income families.



#### Initiative:

### 2023 Blood Donation Programme by UTAC Group

Blood donations are crucial in lifesaving measures, such as treating traumatic injuries in major surgeries, and sustaining patients with medical conditions, such as leukaemia, thalassemia, and bleeding disorders. As such, blood donation efforts are a significant way in which UTAC contributes to the community. We held blood donation programmes throughout the year across the countries we operate in.

In collaboration with medical institutions in Singapore, China, Indonesia, Malaysia and Thailand, we saw 415,600CCs of blood donated by our employees. UTAC intends to continue in our efforts to provide our employees with opportunities to contribute to society in this way.

### School Visit in UTAC Singapore

Community involvement – Industrial visit by Juying Secondary School

In March 2023, UTAC Singapore hosted students and teaching staff from Juying Secondary School for an industrial visit. As part of Juying's efforts to raise industry awareness, the school had reached out to the Singapore Semiconductor Industry Association (SSIA) to request a learning journey at a semiconductor factory. The objective was to provide their students with early exposure the semiconductor industry to provide experience that might help to jump-start their career planning. UTAC was heartened to be selected by SSIA to be the first semiconductor company to host such a visit.

Upon arrival, the students were ushered to the reception area where they were given an overview of UTAC Singapore and the semiconductor manufacturing process flow, before being led on a window plant tour on the different levels of the facility. Throughout the visit, there were engagement sessions with various team leaders.

From the feedback gathered, the students were happy that the visit had given them first-hand exposure to an actual semiconductor manufacturing facility. Encouragingly, some of them have already started considering a career in the semiconductor industry. As UTAC continues to build our employer brand and contribute to community development, we look forward to more collaborative engagements with our community.

### UTAC Dongguan Charity Run and Charity Dance

For the seventh consecutive year, UTAC Dongguan organised a "Dance & Run" to raise charity funding. Held in May 2023, enthusiastic employees from different departments as well as representatives from the management team presented various traditional performances such as Gongfu and Tai Chi. In addition, the charity run component of the event saw the participation of 370 of our colleagues covering 3,600 kilometres and raising RMB49,068.

UTAC was heartened to see the enthusiasm of our staff and commended their efforts to raise funds for their communities.





#### Initiative:

### UTAC Singapore outing with the Elderly 2023

In October 2023, UTAC Singapore's CSR Committee partnered with All Saints Home to organise an outing for some of their residents. All Saints Home is a social service agency that provides comprehensive and professional eldercare services to the aged of all backgrounds, many of whom are from low-income families.

UTAC SG's volunteers planned an outing with the seniors which included a walkabout, activities like treasure hunts and singing, as well as lunch in Kallang Wave Mall. Our volunteers relished the opportunity to spend quality time with members of the community, and our CSR Chairman, Stanley Tan was present to support the initiative and encourage other UTAC employees to be a part of CSR activities, in line with UTAC's efforts of enabling socially responsible corporate citizens.

## 3.5 Customer Satisfaction

UTAC takes pride in delivering value-added products and services to our customers. We are committed to providing high quality turnkey test and assembly services as well as a comprehensive suite of e-business tools, supply chain information, and other services.

We strive to build strong customer relationships and ensure high satisfaction levels through innovative solutions and quality services. We also believe in fostering strong relationships with our suppliers and customers to enable collaboration and forge enduring partnerships.

Our regional sales teams provide customers with timely support, and our factory support structure is specified to customer assignments for optimal alignment. This allows us to develop a better understanding of customer expectations for execution and delivery to request.

As part of our customer satisfaction efforts, UTAC has leveraged the following Customer Relationship Management processes to gain insights into our customers' needs to continually enhance our service offerings:

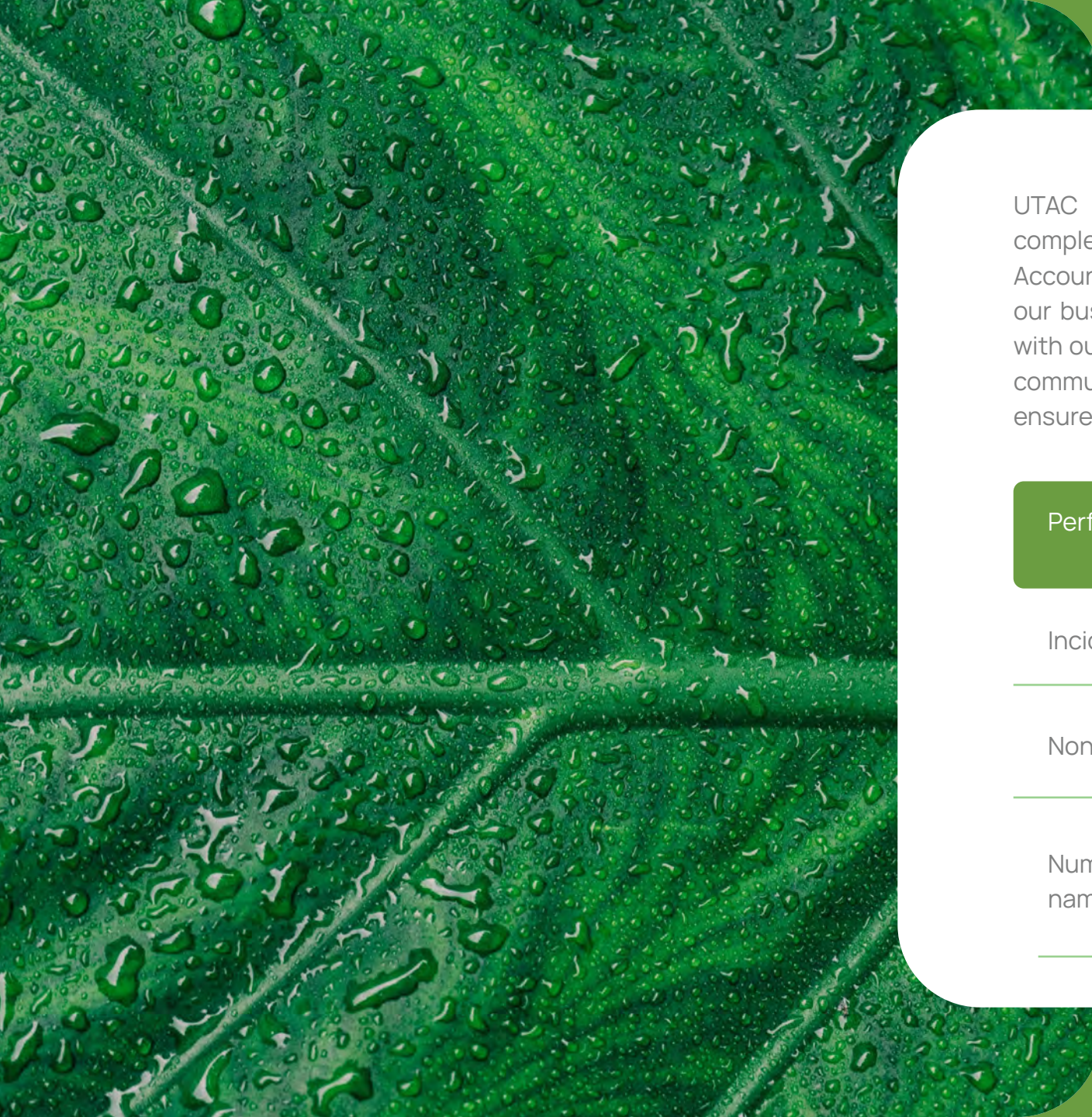


Channel	Details
Quarterly Business Review (QBR)	QBRs are conducted by strategic customers to share their scorecard on supplier performance, business opportunities, technology roadmaps and continuous improvement initiatives
Net Promotor Score (NPS)	<p>Surveys are sent to customers to gather feedback on their loyalty index. UTAC uses NPS to:</p> <ul style="list-style-type: none"> <li>• Identify unsatisfied and at-risk customers</li> <li>• Benchmark against industry and competitor scores</li> <li>• Identify customer loyalty drivers</li> <li>• Monitor improvements in products, services and the overall customer journey</li> </ul>
Customer Scorecard	UTAC leverages our key customers' scorecards to understand their performance criteria and expectations. UTAC uses the scorecard results to identify areas for improvement
Face to Face Meetings	Regular meetings are held to keep customers informed of production progress and to gather feedback
Management Visits	UTAC's senior management holds meetings with key customers to strengthen customer relations and align on approaches such as UTAC's Technology Roadmap



# Responsible Business

# 04.



UTAC competes in challenging, fast-changing global markets. In this complex environment, we leverage our company values of Unity, Trust, Accountability, and Communication in our practices and decision making. As our business success depends on our ability to build trusted relationships with our stakeholders, like our customers, suppliers, governments, and local communities, we value transparency and adhere to high ethical standards to ensure continued trust.

Performance highlights

Incidents of corruption	0
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Non-compliance with laws and regulations	0
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Number of patents registered under the UTAC name as of 31 December 2023	413
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# 4.1 Ethical Business Conduct

## 4.1.1 Management Approach

UTAC is committed to upholding high standards of ethical business conduct and corporate governance and is aligned with RBA's Code of Conduct, Business Values, and global standards of Environmental, Health and Safety and Security.

We have taken steps to strengthen trust with our stakeholders, including ensuring the safety of our workers, rejecting all forms of corruption, bribery, and anti-competitive practices, and ensuring that we are compliant with local security legislation and international standards, such as the US Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act.

Our Code of Conduct is supported by policies such as the UTAC Gifts and Entertainment Policy and the Working with Third Parties Policy. All of our policies are reviewed at least every 2 years and have been approved by the responsible personnel from the relevant departments.



UTAC's Code of Conduct is communicated to all employees through the UTAC portal. To ensure alignment throughout the organisation, all employees are required to complete a mandatory e-learning module and online assessment. It is important to our organisation that all employees possess the knowledge to abide by the Code and adhere to the ethical and professional standards of the organisation. Violations of the Code and company guidelines may result in disciplinary action or a termination of employment. In addition to internal stakeholders, the Code of Conduct is also disseminated to external stakeholders like suppliers. We have included relevant clauses from the Code into contracts to ensure a common understanding of UTAC's values, principles, and expectations. We believe this allows us to foster strong and lasting relationships. Our Code of Conduct is approved by our CEO and reviewed on a two-year basis for continued relevance.



### The Code covers the following issues:

- Enabling a safe, healthy, and harassment-free environment for our employees, contractors, suppliers, and the communities in which we operate
- Safeguarding human rights, resource conservation, community well-being and business ethics
- Mitigating pollution, injury, and ill-health in the workplace
- Exercising non-discriminatory recruitment and ensuring freedom of association for all employees
- Verifying that employment is freely chosen
- Prohibition of child labour
- Engaging in fair conduct of business, advertising, and competition
- Handling Conflicts of Interest
- Zero-tolerance for any form of bribery, corruption, extortion, and embezzlement
- Protecting the personal information of our customers, suppliers, and employees
- Providing appropriate communication channels for employees to raise any concerns without fear of retaliation

In addition, UTAC is committed to upholding and respecting internationally recognised human rights through a comprehensive set of policies and pledges, inclusive of:

**Equal Employment Opportunity Policy:** Ensures that all employment decisions are made without discrimination. UTAC values diversity in our workforce, customers, suppliers and other stakeholders.

**Discrimination, Harassment, and Retaliation Prevention Policy:** Protects employees against any form of discrimination, harassment, and retaliation, promoting a safe and respectful environment.

**Corporate Social Responsibility (CSR) Policy:** Strives to provide a safe, healthy, and harassment-free environment for our employees, contractors, suppliers, and the communities in which we operate.







**Anti-Bribery and Anti-Corruption Policies:** Covered in our Code of Conduct, we promote ethical business practices and ensure our operations are free from corruption and bribery, contributing to fair and just business environments.

**Fair Competition and Antitrust Practices:** Also part of our Code of Conduct, these practices ensure that we compete fairly in the marketplace, fostering an environment of integrity and legal compliance.

**Personal Data Protection Policy and Personally Identifiable Information (PII) Protection Policy:** Published on our website, these policies protect the personal data of employees, customers, and other stakeholders, respecting their right to privacy and aligning with data protection laws and standards.

**Pledge to Support Fair and Progressive Employment Practices with the Singapore Tripartite Alliance for Fair and Progressive Employment Practices (TAFEP):** Commits to promoting fair and progressive employment practices, ensuring equal opportunities and respect for all workers.

To support transparency in corporate governance, the following policies are accessible on the UTAC website:

	Personal Data Protection Policy (PDPA)		Code of Conduct
	Gifts and Entertainment Policy		Security Statement
	Corporate Social Responsibility Policy		Tax Governance Policy Statement

### 4.1.2 Monitoring and Grievance Procedure





To ensure that the Code of Conduct is integrated and enforced in our operations, UTAC has established frameworks and policies aligned with all relevant laws and regulations. One such example is our non-retaliation policy.

Grievances can be submitted through our Anonymous Communication Form, posted by mail to our office address, by calling our hotline or by sending an email to the official company address.

We encourage our employees to make good faith reports of potential violations of the Code of Conduct, other guidelines or the law and do not tolerate any form of retaliation directed towards employees or individuals for raising concerns. The UTAC Management takes these reports seriously and investigates all matters raised to the Investigation Committee, which is tasked with recommending the appropriate course of action. Investigation reports are presented to the Audit Committee for review of the investigation results and remediation action taken.

For incidents deemed to be material or severe, in-depth investigations are conducted to establish the necessary corrective actions.

The types of misconduct condemned under UTAC’s non-retaliation policy include, but are not limited to:

- |  |  |
|--|--|
|  Money laundering |  Bribery and corruption                     |
|  Insider trading  |  Intimidation, discrimination or harassment |

### 4.1.3 Fair Competition and Antitrust

UTAC is committed to strict observance of the competition and antitrust laws of the countries in which we do business and the avoidance of any conduct that could be considered illegal. Antitrust laws govern the way that companies behave in the marketplace and encourage competition by prohibiting unreasonable restraints on trade. We are committed to robust and fair competition in all our countries of operation. We do not take part in any formal or informal discussions, agreements, arrangements, understandings, projects, or accords with current or potential competitors related to pricing, terms or sale of bids, division of markets, allocation of customers, or any other activity that restrains or could restrain free and open competition.

In 2023, UTAC was not involved in any legal action for anti-competitive behaviour and violations of anti-trust laws.

### 4.1.4 Anti-Money Laundering

UTAC is committed to conducting business only with reputable customers and third parties engaged in legitimate business activities with funds derived from legitimate sources. Across all our operations, we comply with all applicable anti-money laundering laws.

### 4.1.5 Whistleblowing Policy

To foster a culture of accountability and transparency, UTAC has a whistleblowing policy which allows employees to report unethical behaviour confidentially. All incidents are treated seriously and undergo thorough investigation by a dedicated committee, comprised of members from the Internal Audit and Legal departments, and HR departments where necessary.

In 2023, UTAC received a total of 18 whistleblowing complaints, of which 14 were employee grievance related complaints that were followed up by the HR department. There was a total of 4 complaints concerning employee fraud reported to the Audit Committee, however, after thorough investigations by the Internal Audit department, none of the cases were substantiated.

At UTAC, we are committed to creating a collaborative and constructive environment where all stakeholders are welcome to provide feedback. We believe that this enables us to address gaps in our operations and improve the overall culture of the company.

### 4.1.6 Regulatory Compliance

In 2023, UTAC had no significant instances of non-compliance with laws and regulations and fines for instances of non-compliance with laws and regulations.

#### *Business ethics and compliance metrics table*

Type of Incident	Number of Incidents
Harassment	4 <sup>1</sup>
Non-compliance with laws and regulations	0
Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area	0
Legal action for anti-competitive behaviour	0
Incidents of corruption	0

*Note*

<sup>1</sup> The reported cases have been investigated and resolved in accordance with the UTAC employee handbook and investigation policy. Based on the nature and severity of the cases, appropriate remediation action has been undertaken, inclusive of remediation efforts and measures to prevent repeat offences.

# 4.2 Sustainable Supply Chain Management

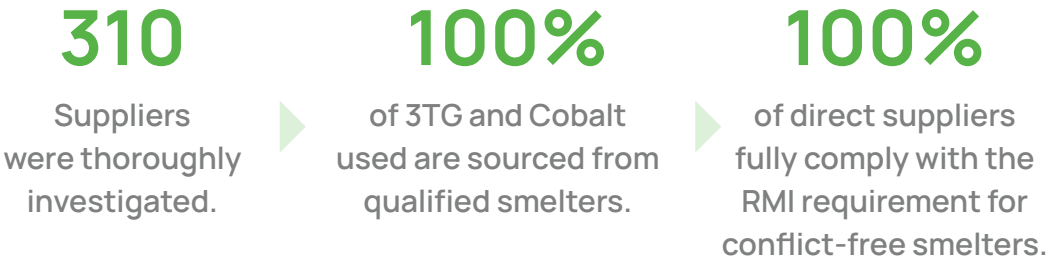
UTAC works with our suppliers to ensure that they comply with applicable laws and regulations while adhering to the RBA Code of Conduct. We also expect our suppliers to hold their supply chains to these same standards.

To enable this, UTAC provides suppliers with an RBA checklist for self-assessments, remote audits and onsite audits. Suppliers are scored on six areas – labour, labour agent, health and safety, environment, ethics and supply chain management.

## 4.2.1 Responsible Minerals Sourcing

UTAC is committed to corporate social responsibility and ensuring that the materials for its products are sourced in a socially and environmentally responsible manner. The Company implements its due diligence program for Conflict Minerals in conformance with the framework promulgated by the Organization for Economic Cooperation and Development (OECD). UTAC expects its suppliers to exercise due diligence concerning the origin and custody chain of conflict minerals used in their products. Suppliers are

required to submit their due diligence measures and conflict minerals sourcing information to UTAC annually, utilising the Conflict Mineral Reporting Template (CMRT) and/or Cobalt Reporting Template (CRT). Additionally, suppliers must responsibly source minerals to prevent contributing to human rights abuses in covered countries. Conflict Minerals include Tin, Tantalum, Tungsten, Gold (3TG), Cobalt, and Mica from Conflict-Affected and High-Risk Areas.



In recent years, the semiconductor value chain has seen increasing scrutiny, especially with regards to mineral sourcing. Through the World Semiconductor Council, the global semiconductor industry adopted Conflict-Free Supply Chain Policy to support efforts to reduce sourcing from conflict-affected areas such as the Democratic Republic of Congo (DRC) or any adjoining region classified as Conflict Region. In alignment with this, UTAC’s Corporate Policy on Supplier Performance Requirements outlines our sites and its suppliers to be aware of and in compliance with Responsible Minerals Initiative (RMI) Conflict Minerals Reporting and/or Cobalt Reporting.

In addition, UTAC is actively improving our mica sourcing conditions and regularly enhance our monitoring processes for effectiveness. Suppliers must also comply with the Extended Minerals Reporting Template (EMRT) requirements, where applicable.

### 4.2.2 Supplier Assessments

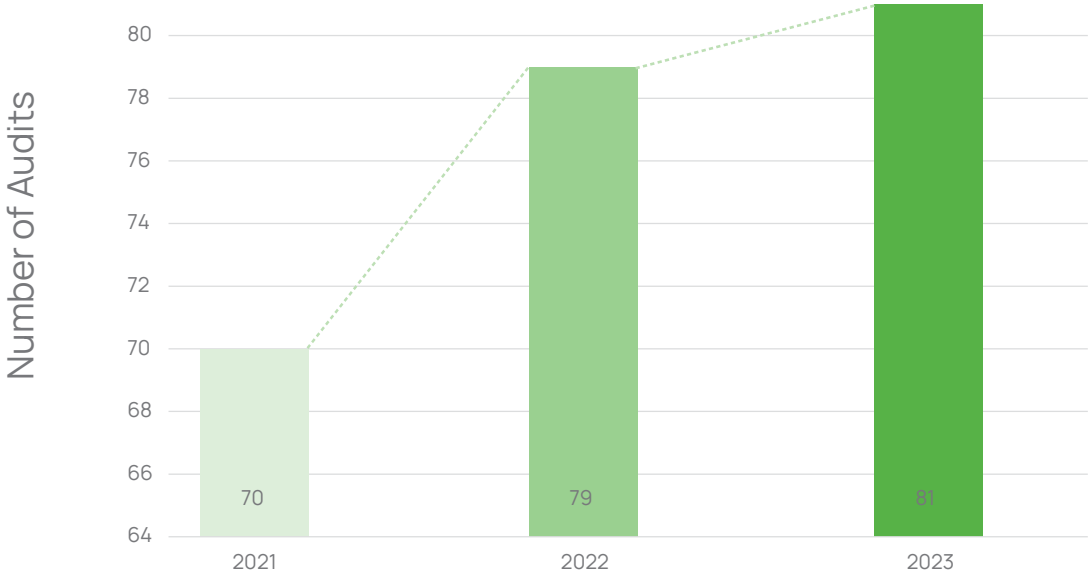
UTAC’s approach towards managing supplier assessments is aligned with the Responsible Business Alliance (RBA), whose mission is to have its members and their suppliers and stakeholders collaborate to improve working and environmental conditions through leading standards and practices. We are committed to upholding RBA’s vision of a global industry that creates sustainable value for workers, the environment and business. UTAC expects its suppliers to comply with RBA Code of Conduct and conduct their business in alignment with UTAC’s supply chain responsibility expectations as stated in UTAC’s Code of Conduct. All metals must originate from Responsible Mineral Assurance Process (RMAP)-validated conflict-free sources and any non-compliant smelters or refiners are excluded.

We reference the Responsible Minerals Initiative for compliant smelters. Should suppliers be found to source materials from Conflict Regions, a formal Corrective Action will be issued and highlighted to Central Procurement with a penalty of either placing the supplier under probation or suspension.

As part of our efforts to uphold good environmental practices along our value chain, UTAC conducts supplier assessments on environmental impacts

through mechanisms such as surveys, self-surveys, remote and on-site audits carried out by our Supply Management and Quality Assurance departments. As outlined by our Environmental Management System (EMS), suppliers are expected to meet specific environmental criteria, act in compliance with all relevant legislation and have in place a hazardous substance management system. Our EMS also stipulates that regular inspections and audits are conducted by suppliers on a regular basis in addition to suppliers conducting standardised programmes for environmental training for employees at all operational levels.

Supplier Audit



UTAC’s RBA team conducts a human rights risk mapping assessment annually to identify potential adverse impacts within our supply chain. In 2023, UTAC conducted 81 quality system audits or RBA code of conduct audits on both direct and critical indirect suppliers, including those providing raw materials, contractors, and labour services. No suppliers were identified as high risk. This assessment evaluates suppliers based on three criteria:



Country risk



Product risk



Business criticality

Through our 2023 audit of selected suppliers, none were identified as having significant actual or potential negative environmental and/or social impacts and no relationships were terminated as a result.



4.2.3 Supplier Social Screening Criteria

UTAC requires our suppliers to confirm adherence to our Code of Conduct. If non-compliant, we work with them on corrective actions.

We communicate and stress the importance of fair labour standards with our suppliers to ensure safe working conditions, reasonable working hours, and fair wages. Suppliers are required to sign a declaration of conformance during the onboarding process.

UTAC has strict policies against child labour and forced labour, which are rigorously enforced through our supplier agreements.

As part of our supplier onboarding process and agreements, UTAC suppliers are expected to adhere to anti-corruption and anti-bribery policies.

## 4.2.4 Supplier Environmental Efforts



### Supplier Energy Efficiency Programs

UTAC encourages our suppliers to implement energy-saving technologies and practices in their operations. Some of our key suppliers have seen their carbon emissions reduced by more than 30 percent over the last five years and are aiming to hit 50 percent by 2030 as they continue to trend towards net-zero by 2050.



### Shipment Consolidation

UTAC optimises our logistics and transportation by consolidating shipments to reduce fuel consumption and CO<sub>2</sub> emissions. Currently, UTAC combines more than three shipments each week.



### Localisation

UTAC prioritises the selection of local over foreign suppliers, especially for bulky packaging materials, to reduce the need for cross-country transportation. As such, we source more than 70 percent of such materials locally.



### Waste Management

We have implemented recycling programs with some of our suppliers, promoted the reuse of materials and reduction of landfill waste as part of our recycling and waste reduction efforts.





## 4.3 Data Security

### 4.3.1 Information Security Management

At UTAC, we believe that robust data security is vital to our operations. We aim to keep pace with shifting strategies and technologies to manage, mitigate and prevent evolving cybersecurity risks. We have been practising IT General Controls (ITGC) based on ISO 27001 ISMS Framework and referencing the NIST Cybersecurity Framework to setup comprehensive guidelines and best practices for improving information security and cybersecurity risk management. Although UTAC has not yet obtained ISO certification, we have passed annual ITGC audits by external auditors, in addition to regular audits carried out by our customers and partners. We perform frequent reviews and implement improvements in our security safeguards to attain higher levels of IT security maturity. We maintain IT security, integrity, reliability of network, applications system and Infrastructure through cyber security monitoring, threat protection, incidents response and risk mitigation.

We work to continuously enhance our employees' IT security knowledge, awareness, and adherence to regulatory compliance.





# UTAC's General Control & Cybersecurity Safeguards






All computer software within UTAC is kept up to date against the latest cyber threats through our regular security patches. Our systems and networks are protected by Endpoint security through End Point Detection and Response (EDR), email security, Data Loss Prevention (DLP), Access control with Multi-factor authentication (MFA), network security through Next Generation firewall, network segregation, wireless security, web filtering, which shields us from malicious actors trying to gain access to our systems and networks.

We have implemented governing IT Security policies, with rigorous visitor access policies and proper network security management, helping to protect our information. These commitments are further cemented in our Code of Conduct, which states the responsibility that all employees must protect UTAC's information, and for them to familiarise and comply with UTAC's information security policy.

UTAC has in place the following core policies, procedures and standards (but not limited to) to ensure that the highest level of security for operations and our customers.

-  IT incident management plan and procedure
-  Data management policy
-  Information classification and handling standard
-  Cybersecurity threat management

-  Anti-phishing measures
-  Cyber threat response checklist
-  Emergency cyber threat response procedure

UTAC Indonesia has obtained a Card Quality Management Certificate as part of the MasterCard Card approval process adopted globally by EMVCo, which requires all banking chip card manufacturers, and all parties in their supply chain to obtain and maintain certification. Furthermore, our security systems at a subset of our factories (UTAC Singapore, UTAC Thailand, UTAC Indonesia) have obtained Evaluation Assurance Level (EAL) 6 of the Common Criteria security evaluation. EAL refers to a numerical rating describing the depth and rigor of an evaluation.

### 4.3.2 Protection of Confidential Information of Customers

We believe that all our employees, contractors and external partners that support UTAC, are responsible for protecting UTAC's assets, information and reputation. Proprietary and confidential information are valuable UTAC assets, inclusive of internal and external communications, digital information stored on desktops, laptops, servers, hand-held devices, tablets, backups, and portable storage devices. Given this, UTAC believes that we all take personal responsibility to safeguard both UTAC and third-party proprietary

and confidential information from unauthorised disclosure, changes, or loss. We comply with our organisation's IT policies and procedures to handle information assets and systems in order to meet our legal obligations, to protect our reputation and safeguard both UTAC's and our partner's proprietary information.

In 2023, there were no complaints received concerning breaches of customer privacy and losses of customer data provided.

### 4.3.3 Educating Our Employees

We regularly communicate cybersecurity news about security threats like phishing attacks, malware, as well as security best practices such as remote work security, password, mobile device protection, secure browsing to all our employees including new hires to ensure that they are kept well-informed of the potential cybersecurity risks, ways to mitigate the risks, and steps to report and/or prevent security incidents. Data privacy and information handling, and its legal implications, are also emphasised through these regular communications to our employees so that they are equipped with the knowledge to protect the confidentiality of data and information handled by UTAC.

Educational material on the following topics have been shared with our employees:

-  Phishing awareness and detection
-  Protection of mobile devices
-  Awareness of social engineering as a means of hacking
-  Password security guidance
-  Ransomware awareness
-  Acceptable use of IT resources
-  Security practices on information handling
-  Data privacy
-  Secured internet browsing
-  Malware
-  Mobile device security
-  Remote work security
-  Multi-factor authentication

## Cybersecurity Awareness Poster

We believe that delivering effective cybersecurity message through Cybersecurity Awareness Poster enables us to reinforce cyber best practices for our employees, mitigate risk and embed a culture of cybersecurity awareness.

### Detecting a Phishing Email

Phishing emails in particular, are a hugely popular technique designed to take advantage of low levels of user security awareness, accounting for significant data breaches. We highly encourage employees to print/ place the posters in their work desk and/or key areas of the office and facilities with high traffic where they can be easily seen by many, to constantly remind everyone to be aware of phishing emails and remain vigilant at all times.

### Acceptable Use of IT Resources

The theme of the August Cybersecurity e-poster is to raise awareness of IT Resources & Acceptable Use Policy. Essentially, it describes the need for user to be responsible in imparting secure behaviour while utilizing the organization's systems and resources.



# 4.4 Innovation Management

## 4.4.1 Intellectual Property (IP) Management

Our operational success depends in part on our ability to acquire, develop and protect intellectual property, which principally relates to proprietary package design and processes. We seek to identify strategic intellectual property for our operations and focus on acquiring or developing such intellectual property that can enhance our capabilities.

Since 1998, UTAC has been filing patent applications for inventions from our innovation. IP rights in our solutions are also protected by Non-Disclosure Agreements or patent applications before being shared with customers or joint development partners.

Our policy for the development of new products includes conducting a Freedom to Operate patent search to ensure that the process or product does not violate any IP rights of third parties.

Employees are encouraged to scrutinise solutions and identify innovative processes and products. The innovative processes and products are reviewed to identify inventions which are suitable to be filed as patent applications. A Policy on Patent Recognition Award has been provided to award inventors of

IPs which are protected as Trade Secret or filed as patent applications.

As of December 31, 2023, we have 413 patents registered in our names, mainly in the United States, but also in China, Singapore, South Korea, Malaysia and Thailand. As of the same date, we also have pending applications for 43 patents in China, Singapore, Thailand and the United States.

## 4.4.2 Research and Development

UTAC's Research and Development ("R&D") team is strategically located in our Singapore, Thailand and China facilities and works with our factories and customers to develop packages aligned to each factory's core strength.

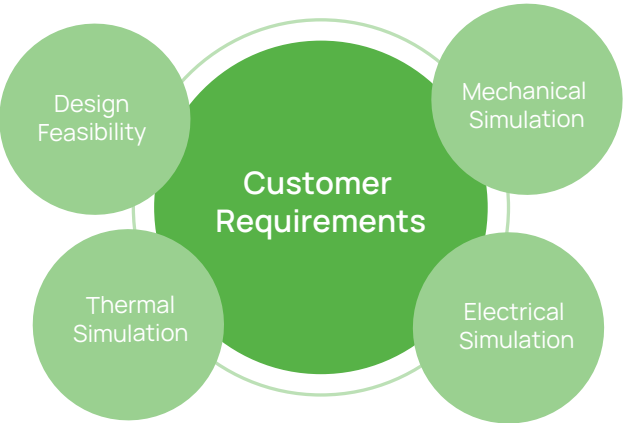
UTAC's teams also leverages synergies through sharing and developing technologies that cater specifically to our customer's requirements. We offer full turnkey solutions, from design, package simulation, assembly, materials development, functional and reliability testing (package and board level). We have several joint development projects with our key customers to develop and qualify new technologies and bring these products to volume production.

As part of our offering of full turnkey services, we also offer test development and solutions. Our test development team is located in Singapore and is focused on developing high speed and complex testing capabilities, software and processes to enhance testing accuracy and efficiency across our factories worldwide. We offer advanced testers and test handling technologies through close collaboration with our customers

and partnerships with equipment suppliers. From our test experience and understanding of the requirements of advanced semiconductor devices, we endeavour to develop test techniques that enable semiconductors to be tested more efficiently and cost effectively for our customers.

4.4.3 Innovation and Technology

To ensure our continued growth, UTAC has invested in R&D to expand our portfolio to include innovative and solution-oriented products including wafer level processing, highly integrated hybrid SiP, high power devices and MEMS/Sensors. Through UTAC’s strategic regional locations in Singapore, Thailand and China, our R&D teams work in concert to create solutions for our customers. Leveraging our design and package characterisation capabilities, UTAC develops approaches to meet our customers’ needs – ranging from function, form factor cost, performance, reliability or additional requests.



UTAC is committed to developing cutting-edge products aligned with industry trends, this includes a focus on advanced leadframe technologies, power SiP/module packaging, MEMS/Sensor technologies including CMOS Image Sensor (CIS) for automotive ADAS applications, advanced wafer level and bumping technologies and System in a Package (SiP) technologies. We regularly review our development efforts to ensure that we are aligned with the demands of customers and the industry.

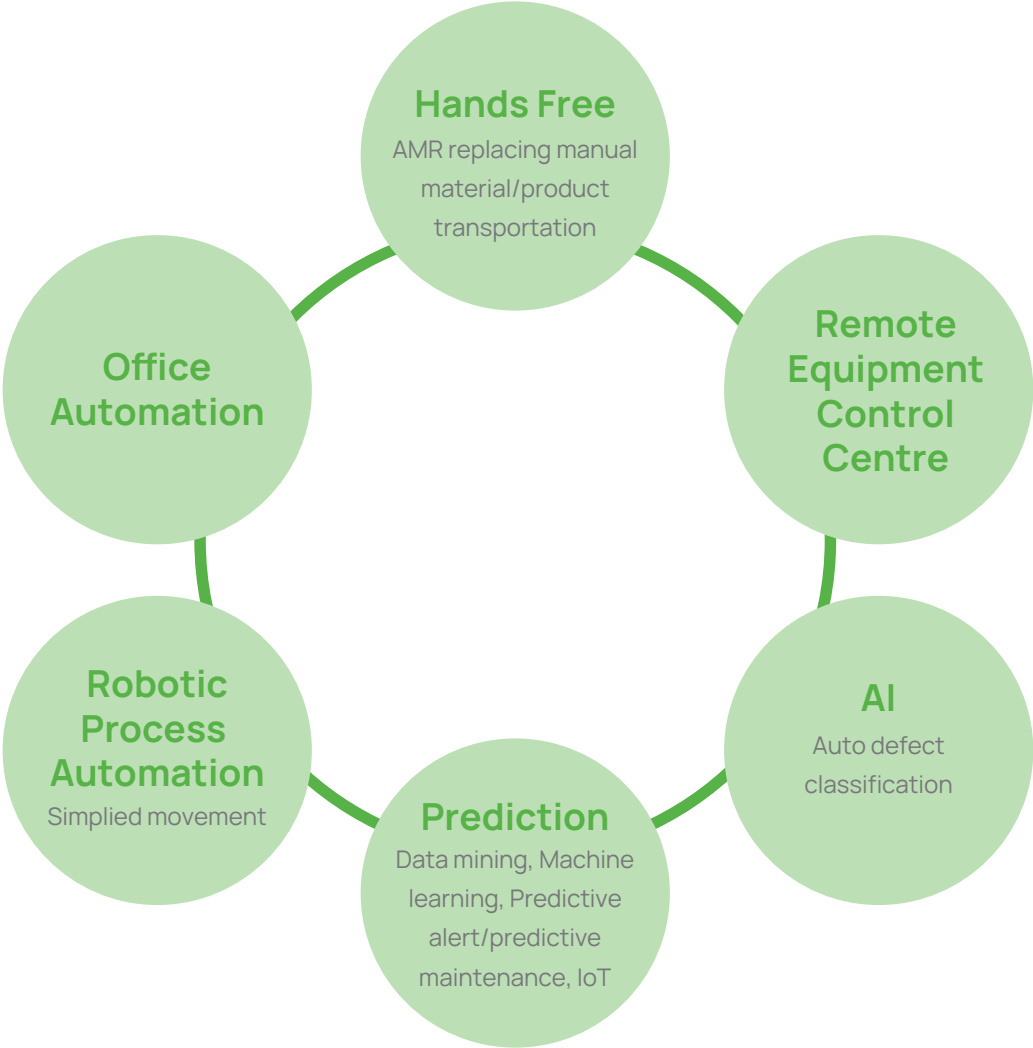


In addition to product innovation, the labour-intensive nature of the semiconductor industry has presented opportunities for the use of innovation to enhance efficiency.

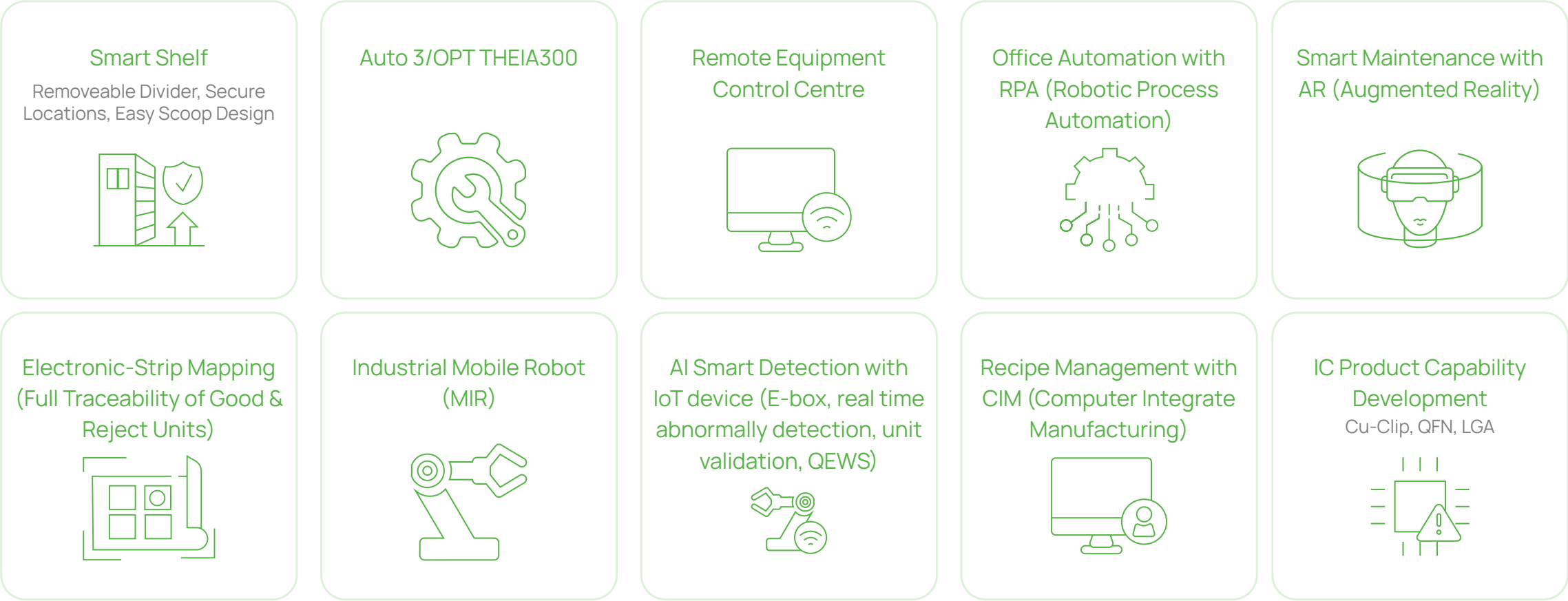
As part of our efforts to make continuous advancements to better serve our clients, UTAC introduced our “Smart Factory” transformation initiative, this project will involve the adoption of Industrial 4.0 and smart manufacturing plant capabilities to improve manufacturing performance, reduce manual handling, increase worker productivity and enhance quality.

The initiative has six key pillars:

- 01
- Leveraging robots to enable hands-free material and product transportation
- 02
- Remote Equipment Control Centre (RECC) for monitoring, controls, alerts and assistance
- 03
- Utilising Artificial Intelligence for visual defect classification
- 04
- Data Mining for data availability, visualisation, analytics and control, predictive maintenance and quality
- 05
- Robotic Process Automation (RPA) to eliminate various manual processes
- 06
- Office automation to optimise or automate existing office procedures



UTAC Smart Factory Initiatives



2021 to 2025

# Transformation Into A Smart Manufacturing Plant – 2021 to 2025

## Hands-Free

USG 3 Bump, USG1 -> UTL, UDGA fanout



AMR-Cobot replacing manual loading/unloading and material/ product transportation

## Remote Control

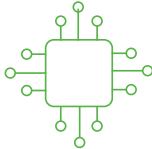
USG1 LG/SAW/TnR/Sort & UTL



Central command system with Remote access on real time status, assist & enhanced control with big data capturing

## AI

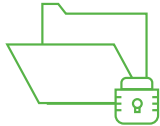
AI model development  
USG, UTL -> UDGA fanout



Auto Defect Classification with AI replacing manual inspection decision for AOI, PMI, IPQC on image/video

## Data Mining

USG & UTL



Data drilldown, Data Analytic & Data A.I for machine learning, Predictive Alert/PM, IoT, FDC & efficient data driven manufacturing

## Growth, Productivity, Quality, Cost

- BUMP
- SORT
- WLCSP
- iBGA / BGA
- FINAL TEST
- EOL
- SUPPORT

## Energy MNGT

Project EMIS



Energy Management Information System (EMIS) combines SW & HW to enable energy performance visibility for improving energy efficiency, cost, use

## HR System

UTAC Employee Hub - Dayforce live



Integrated HR system covering Core HR, Recruitment, Onboarding, Time management, Leave & Payroll system to achieve a connected workplace, paperless office, real time data-driven decisions & improve workforce digital literacy

## Our People

Skills Development > JRR



- Organization transformation
- Upskill workforce
- Training & Retraining
- Job redesign
- Transformation from the top
- Change Skill Framework & Skills Profile > Skill Gap Analysis & BM > Training needs

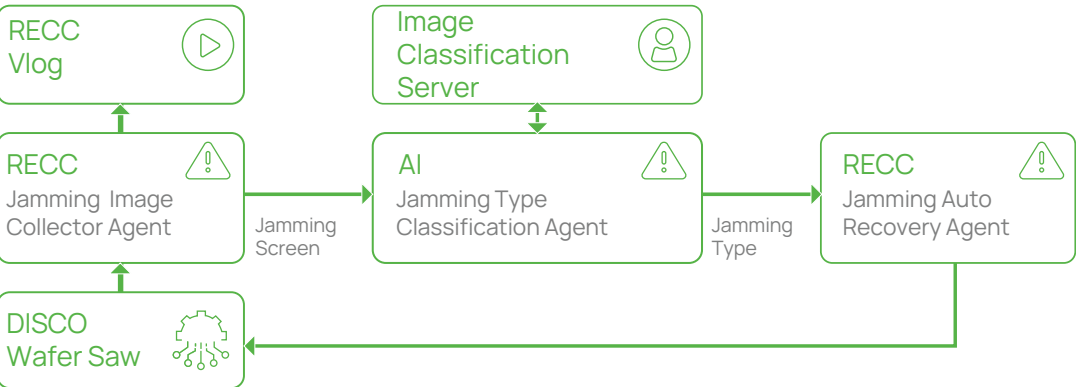
01) Leveraging robots to enable hands-free material and product transportation

UTAC has used AMR+Cobot to replace manual processes including loading, unloading, material and product transportation. This system adopts intelligent software to deal with sophisticated requirements in manufacturing conditions of priority lots, super hot lots and Q-time control, especially in cases where the three conditions will occur simultaneously to avoid quality issues caused by manual handling.

02) Remote control monitoring, controls, alerts and assistance

Equipping the central command system with remote access on machine real time status, assist on machine alarm with further enhancement control on big data capturing. Using AI, some machine alarms will be cleared without involving operators.

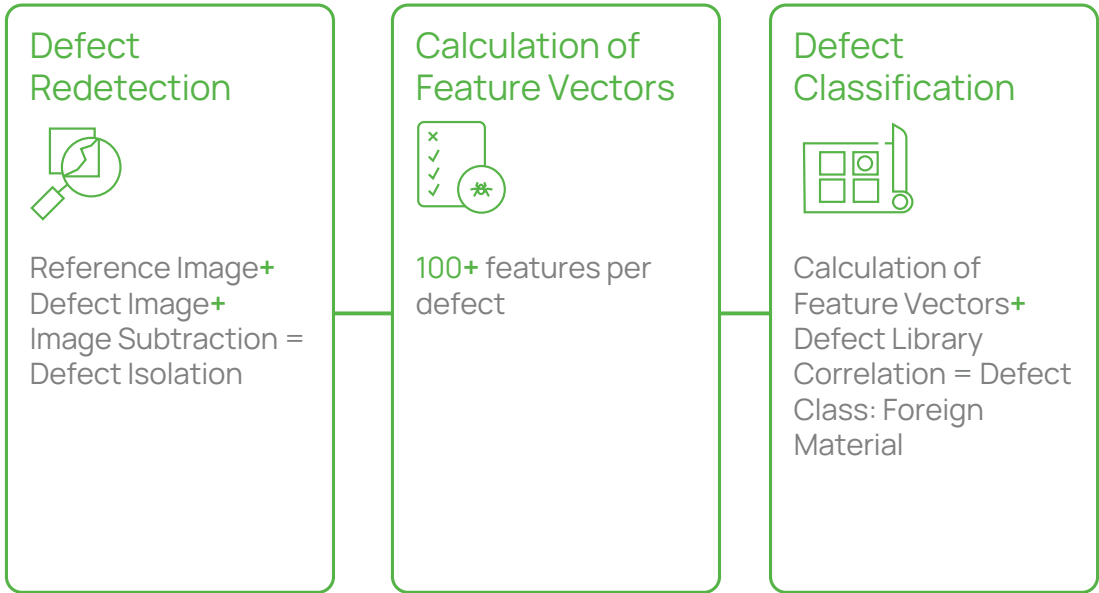
RECC Auto Jamming Recovery



03) Utilising Artificial Intelligence for visual defect classification

Auto Defect Classification (ADC) with AI replacing manual inspection decisions for Automatic Optical Inspection (AOI), Post Mold Inspection (PMI), In-Process Quality Check (IPQC) on image and video. Machine inspection to examine products with enhanced accuracy to achieve zero defects. This has resulted in reduced false rejections of units in addition to decreased customer complaints and recalls.

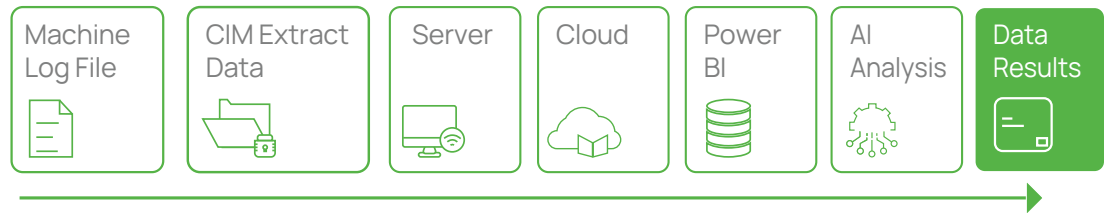
How the ADC Works:



04) Data mining for data availability, visualisation, analytics and control, predictive maintenance and quality

Analysis of raw data and automation with algorithms from analytic models to optimise performance. Use of Data drilldown, Data Analytic & Data A.I for machine learning, Predictive Alert/PM, IoT, Fault Detection Control and efficient data driven manufacturing. Such approaches help identify root causes of failure by exploring the causal correlation between defects and equipment or process parameters. Predicting defects involves detecting abnormal sensor data during in production.

Data Mining Technology Overall Methodology



05) Robotic process automation to eliminate various manual processes

Application of 4.0 technology and automation methods in the manufacturing line and process using simplified movement. The advantages of this includes process automation and human error reduction, eliminating manual processes for improved and more consistent quality. Through this, UTAC is more able to deliver to customers on time.

UTAC also uses electronic process travellers and strip mapping to automatically identifies the status of units by the machine itself to prevent loss of documents in the manufacturing environment. This is a crucial form of traceability.

Such innovative tool design is also part of RPA development which helps in RPA process automation handling for touch-free processes to reduce human error and improve productivity.

06) Office automation to optimise or automate existing office procedures

Office automations and software robots help to simplify administrative tasks and minimises repetitive data entry-related tasks. Through such automation, UTAC is able to generate full data reports by 2D Barcode (2DBC) traceability and electronic process strip mapping with Manufacturing Execution System (MES) data integration. This has resulted in improvements in process quality and yield analysis.

UTAC intends to build a Centre of Excellence (CoE) in technical training to develop skills related to Smart Factory-related job redesign and reskilling.





# GRI Content Index

# 05.

Statement of Use      UTAC has reported the information cited in this GRI content index for the period 1 January 2023 to 31 December 2023 with reference to the GRI Standards.

GRI 1 used      GRI 1: Foundation 2021

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2021

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