SUSTAINABILITY REPORT

SUSTAINABILITY REPORT

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THIS REPORT PROVIDES US WITH A VALUABLE OPPORTUNITY TO ENGAGE OUR STAKEHOLDERS AND RESPOND TO ISSUES THAT MATTER MOST TO THEM AND TO OUR BUSINESS, WHILE AT THE SAME TIME, ENHANCES THE COMPANY'S ASSESSMENT IN RISK MANAGEMENT, STRATEGY DEVELOPMENT, AND STAKEHOLDER ENGAGEMENT ACTIVITIES AS WE WORK TO FURTHER FOCUS AND PRIORITISE OUR SUSTAINABILITY AND CORPORATE SOCIAL RESPONSIBILITY INITIATIVES.

BOARD STATEMENT

Nanofilm Technologies International Limited ("**Nanofilm**" or the "**Company**"), together with our subsidiaries (the "**Group**"), is pleased to present our third sustainability report ("**Report**") for the financial year ended 31 December 2022.

In FY2022, we have reviewed our material topics to ensure that they were still relevant and current. This review was done through a peer benchmarking and a stakeholder engagement exercise with both our internal and external stakeholders. Following a detailed data collection exercise across the Group, we have also refined our 2030 targets and worked on aligning our targets to the United Nations Sustainable Development Goals ("**UNSDGs**").

During the year, Nanofilm has also formed a new Joint Venture ("**JV**") company with Shenzhen Everwin Precision Technology Co. Ltd ("**Everwin**") and Shanghai Hongshi Enterprise Management Partnership (Limited Partnership), named Sichuan Apex Technologies Co., Ltd ("**ApexTech**"), to develop solutions that have the potential to replace the current electroplating process used in the manufacturing of battery components, which often results in toxic emissions and other adverse environmental impacts. ApexTech again reflects our confidence that our technology can be the leading example in the industry, providing a more environmentally friendly solution in a cost-competitive manner. We shall continue to seek opportunities to develop more solutions in the green energy space.

The scope of this Report covers information on material sustainability aspects of Nanofilm from 1 January 2022 to 31 December 2022 unless otherwise specified. Performance data from our operations in China, Singapore, Vietnam and Japan have been included in this Report. We believe that the Report should sufficiently address stakeholders' concerns in relation to sustainability issues arising from the Group's major business operations.

The Board, CEO and senior management of Nanofilm ("**Senior Leaders**") oversee the management and monitoring of the economic, environmental, social and governance ("**EESG**") factors of the Group, and take them into consideration in the determination of the Group's strategic direction and policies. They were involved in the preparation and review of this Report before it was approved and published and have oversight of the EESG material factors which are reviewed annually and ensure that the factors are relevant and current for the business. The Senior Leaders are also involved in the management and monitoring of these EESG factors through the Corporate Social Responsibilities ("**CSR**") Leaders and Working Group which comprise representatives from various business functions in the Group.

This Report provides us with a valuable opportunity to engage our stakeholders and respond to issues that matter most to them and to our business, while at the same time, enhances the Company's assessment in risk management, strategy development, and stakeholder engagement activities as we work to further focus and prioritise our sustainability and corporate social responsibility initiatives.

This Report is prepared with reference to the Global Reporting Initiative ("**GRI**") Standards as it provides an extensive framework that is widely accepted as a global standard for sustainability reporting. The Report also takes into account the latest GRI Universal Standards 2021, the recommendations of the Task Force on Climate-related Financial Disclosures ("**TCFD**"), Sustainability Reporting Guide of Practice Note 7.6 of the SGX-ST Listing Manual.

In preparing our Report, we applied the GRI's principles for defining report content and report quality by considering the Group's activities, impacts and substantive expectations and interests of our stakeholders. An internal review of our sustainability reporting processes (including key aspects of this Sustainability Report) will be conducted by our internal auditor on a cycle basis, as part of their internal audit plan. Internally, we have relied on internal data monitoring and verification to ensure accuracy of this Report.

We welcome your views and feedback on our sustainability practices and reporting at sustainability@nti-nanofilm.com

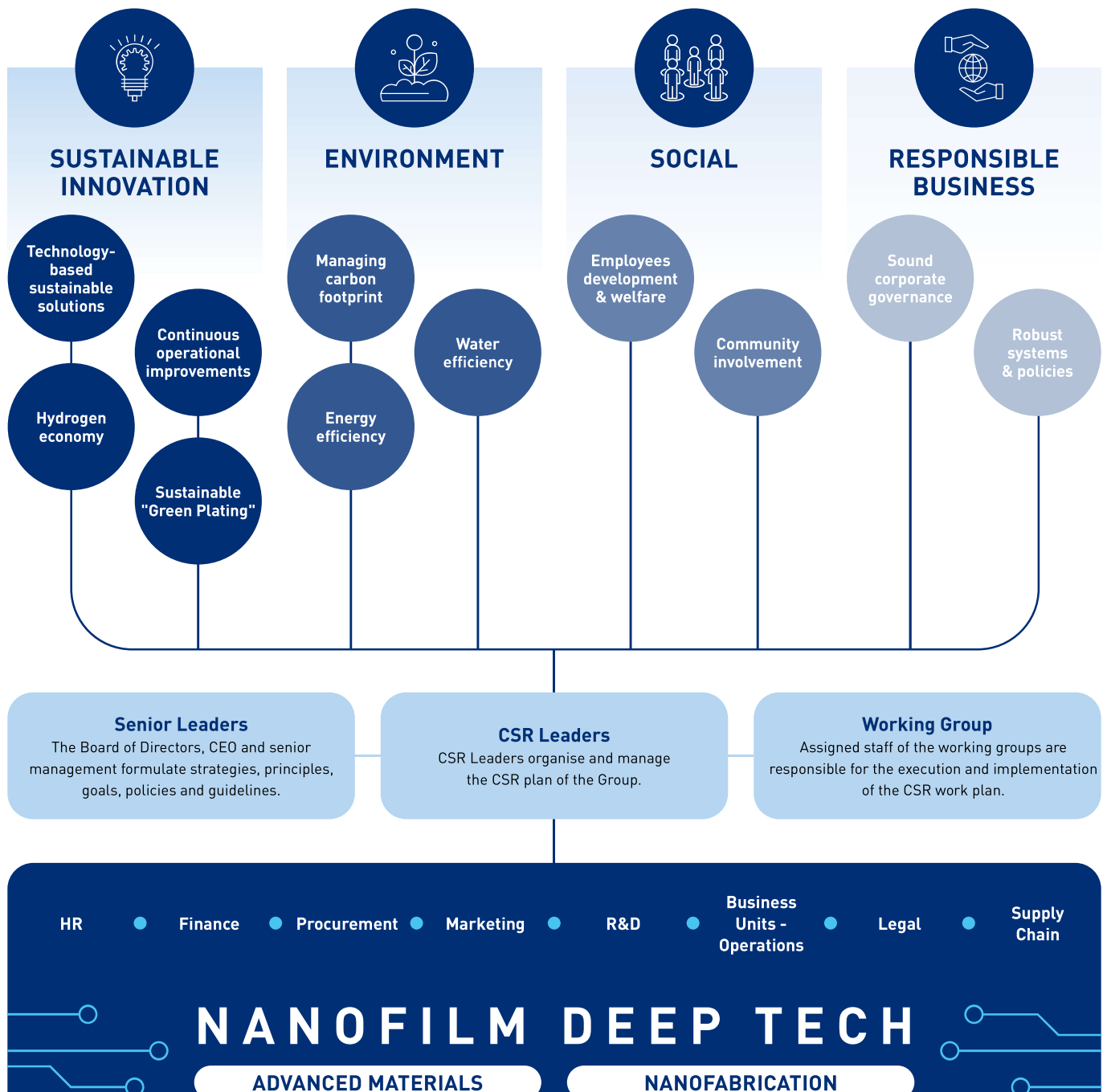**Board of Directors**
Nanofilm Technologies International Limited

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CONNECTING DEEP TECH TO THE COMMERCIAL WORLD

APPROACH TO SUSTAINABILITY

SUSTAINABILITY IN OUR ORGANISATIONAL STRUCTURE

Sustainability is a vital and integral part of our corporate strategy for achieving long-term sustainable growth through value creation for our people, our environment and our society. We have structured our organisational structure to lead and execute our sustainability framework.

SUSTAINABLE INNOVATION

- Technology-based sustainable solutions
- Continuous operational improvements
- Hydrogen economy
- Sustainable "Green Plating"

ENVIRONMENT

- Managing carbon footprint
- Water efficiency
- Energy efficiency

SOCIAL

- Employees development & welfare
- Community involvement

RESPONSIBLE BUSINESS

- Sound corporate governance
- Robust systems & policies

Senior Leaders
The Board of Directors, CEO and senior management formulate strategies, principles, goals, policies and guidelines.

CSR Leaders
CSR Leaders organise and manage the CSR plan of the Group.

Working Group
Assigned staff of the working groups are responsible for the execution and implementation of the CSR work plan.

HR • Finance • Procurement • Marketing • R&D • Business Units - Operations • Legal • Supply Chain

NANOFILM DEEP TECH

ADVANCED MATERIALS   NANOFABRICATION

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STAKEHOLDERS ENGAGEMENT

We care about our stakeholders. We recognise the need to continuously develop our business in a responsible manner and to do this, we must first understand our stakeholders' expectations on Nanofilm in the economy, environment and society. We have periodically consulted our stakeholders using a holistic framework to determine issues that are most relevant to them and Nanofilm.

Our internal stakeholders include the Board, management and employees of Nanofilm, whereas the external stakeholders include customers, strategic business partners, employees, regulatory authorities, shareholders, investors, media, analysts, suppliers and vendors.

An overview of our approach and rationale is set out below (with stakeholders listed in alphabetical order), together with the feedback and views received.

STAKEHOLDERS	HOW DO WE LISTEN?	WHAT ARE YOU TELLING US?	WHAT ARE WE DOING?
CUSTOMERS AND STRATEGIC BUSINESS PARTNERS	• Direct feedbacks via sales channel engagement • Site visits to our production facilities • Co-development of research and development projects • Periodic assessment and audits performed by customers relating to impacts on environment, health, safety and social factors	• Continue to develop innovative solutions that are mission critical in nature • Establish green factory • Ensure business continuity	• Provide a sustainable factory environment while providing solutions needed by customers • Creating value in a sustainable and responsible manner • Ensure that we meet customers' ESG requirements
EMPLOYEES	• Employee's survey and interactions • Internal updates and communication • Events and functions	• Provide training and education • Manage occupational health and safety • Maintain work life balance	• Ensure workplace health and safety enable the employees to work comfortably and safely • Employment benefits to address basic needs and help to manage stress and improve health • Training and career development are in place to improve effectiveness and productivity
REGULATORY AUTHORITIES	• Regular updates and communication • Reports and compliance • Periodical meetings with government bodies • Dialogue with government bodies	• Contribute to regulatory landscape shaping as a market participant	• Attending market events to increase communication, visibility and transparency • Play a part in contributing to economy activities and value-adding output in countries we have presence in
SHAREHOLDERS, INVESTORS MEDIA, AND ANALYSTS	• SGX Announcements • Shareholders' meeting • Annual reports and Circulars • Company's website • Regular updates and communication	• Long-term profitability • Sustainability matters • Group's performance against targets • Compliance with all relevant requirements	• Committed to delivering economic value to our capital providers through a strong financial performance and our engagement with them • Regular and effective communication
SUPPLIERS, VENDORS	• Periodic supplier's assessment • Supplier's meetings	• Ability to meet Company's quality standards • Ability to meet Company's delivery timelines	• Periodic suppliers' assessments to ascertain quality of products and services acquired to ensure that they are free from hazardous substances • Supply chain due diligence to ensure our suppliers do not have incidents of human rights and child labour violation

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MATERIALITY
GRI 3-1, GRI 3-2, GRI 3-3

In FY2022, we reviewed our material topics to ensure that they were still relevant and current. This review was done through a peer benchmarking and a stakeholder engagement exercise with both our internal and external stakeholders. To identify potential significant topics, a variety of sources and standards were used as inputs to the review:

- Reporting standards and frameworks, including the GRI Standards, the Sustainability Accounting Standards Board (SASB) and the recommendations of the TCFD;
- Customer feedback on our sustainability performance through both formal and informal means;
- Legal/regulatory aspects affecting the company directly or indirectly;
- Input and feedback from direct ESG outreach meetings with investors;
- Sustainability information that various ranking organisations use to determine Nanofilm's performance;
- Feedback on our prior sustainability reporting;
- Insight from our senior management team; and
- Our sustainability goals.

External stakeholders and internal stakeholders relevant to Nanofilm's business were identified based on GRI's definition[1]. Through discussion with key management representatives from the various business divisions, external stakeholders were identified – shareholders/investors, bankers/analysts, customers, business partners, suppliers/vendors and employees. Using the topics identified from the peer benchmarking exercise, a list of common material topics was established and these were used for the stakeholder engagement exercise to better understand stakeholders' needs and concerns, so that we could prioritise the various ESG topics.

The stakeholder engagement exercise was facilitated by an independent sustainability consultant. The stakeholder engagement surveys were sent to internal and external stakeholders. Respondents were asked to identify topics that were important for Nanofilm to respond. Results of prioritised topics from the stakeholder engagement exercise are shown below. Data points in the top right quadrant were identified as being most important for Nanofilm.

EXTERNAL STAKEHOLDERS		Monitor and Manage	Ongoing Importance	Priority
Priority			• Anti-Competition Behaviour • Non-Discrimination • Transparency & Disclosure • Code of Conduct	• Compliance • Anti-Corruption • Child Labour • Continuous Innovation & Improvement • Technology-Based Solutions • Business Continuity • Forced or Compulsory Labour • Customer Health & Safety • Customer Privacy • Occupational Health & Safety • Waste Management
Ongoing Importance			• Water Conservation & Recycling • Energy Management • Labour/Management Relations • Training & Education • Equal Opportunity & Workforce Diversity • Supplier Assessment for Labour Practices • Stakeholder Engagement • GHG Emission • Procurement Practices	• Board Diversity & Structure • Shareholder Rights
Monitor and Manage		• Freedom of Association and Collective Bargaining • Market Presence • Community Involvement	• Customer Engagement • Climate Change Mitigation & Adaptation	• Renewable & Clean Energy
		Monitor and Manage	Ongoing Importance	Priority
		INTERNAL STAKEHOLDERS		

FIGURE 1. RESULTS OF PRIORITISED TOPICS FROM THE INTERNAL AND EXTERNAL STAKEHOLDERS ENGAGEMENT EXERCISE ARE SHOWN ABOVE. DATA POINTS IN THE TOP RIGHT QUADRANT WERE IDENTIFIED AS BEING MOST IMPORTANT FOR NANOFILM.

1   GRI 3 Material Topics (2021): Stakeholders are defined as individual or group that has an interest that is affected or could be affected by the organisation's activities. Source: Organisation for Economic Co-operation and Development (OECD), OECD Due Diligence Guidance for Responsible Business Conduct, 2018.

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The top 10 material topics identified for Nanofilm are:

1. Compliance
2. Occupational Health and Safety
3. Anti-Corruption
4. Child Labour
5. Customer Privacy
6. Continuous Innovation & Improvement
7. Business Continuity Management
8. Forced or Compulsory Labour
9. Customer Health and Safety
10. Technology-Based Solutions

Additional material topics of on-going importance to Nanofilm were also included as part of our material topics:

11. Waste Management
12. Water Conservation and Recycling
13. Energy Management
14. GHG Emission
15. Labour/Management Relations
16. Training and Education
17. Procurement Practices
18. Equal Opportunity & Workforce Diversity
19. Supplier Assessment for Labour Practices

We have grouped the material topics into 3 focus areas - Environment, Social and Responsible Business as shown below.

SUSTAINABILITY FOCUS AREA	MATERIAL TOPIC	RELEVANT GRI STANDARD APPLIED	RELEVANT SECTION OF SUSTAINABILITY REPORT
Sustainable Innovation	• Technology-Based Solutions	–	• Sustainable Innovation - Technology-Based Solutions
	• Continuous Innovation & Improvement	–	• Sustainable Innovation - Continuous Innovation, Operational Excellence and Continual Improvement
Environment	• GHG Emission	• GRI 305-1, 305-2, 305-4	• Environment - Managing our Carbon Footprint
	• Energy Management	• GRI 302-1, 302-3	• Environment – Energy Efficiency
	• Water Conservation and Recycling	• GRI 303-1, 303-2, 303-3, 303-4, 303-5	• Environment - Water Conservation and Recycling
	• Waste Management	• GRI 306-1, 306-2, 306-3	• Environment - Waste Management
Social	• Training and Education	• GRI 404-1, 404-2, 404-3	• Social - Talent Development and Retention • Social - Performance Appraisal
	• Equal Opportunity & Workforce Diversity	• GRI 405-1, 406-1	• Social - Workforce Diversity and Equal Opportunity
	• Labour/Management Relations	• GRI 401-1, 401-2	• Social – Employee Welfare and Encouraging Work-Life Balance
	• Occupational Health and Safety	• GRI 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-9	• Social - Managing Occupational Health and Safety
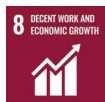
SUSTAINABILITY REPORT

SUSTAINABILITY FOCUS AREA	MATERIAL TOPIC	RELEVANT GRI STANDARD APPLIED	RELEVANT SECTION OF SUSTAINABILITY REPORT
Responsible Business	• Compliance	• GRI 2-27	• Responsible Business – Ethics and Compliance
	• Anti-Corruption	• GRI 205-3	• Responsible Business – Ethics and Compliance
	• Anti-Competitive Behaviour	• GRI 206-1	• Responsible Business - Ethics and Compliance
	• Procurement Practices	• GRI 204-1	• Responsible Business - Procurement Practices
	• Supplier Assessment for Labour Practices	• GRI 414-1, GRI 308-1	• Responsible Business - Supply Chain Due Diligence
	• Child Labour	• GRI 408-1	• Responsible Business - Human Rights
	• Forced or Compulsory Labour	• GRI 409-1	• Responsible Business - Human Rights
	• Business Continuity Management	–	• Responsible Business – Business Continuity
	• Customer Privacy	• GRI 418-1	• Responsible Business – Customer Privacy
	• Customer Health and Safety	• GRI 416-2	• Responsible Business – Customer Health and Safety

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OUR PERFORMANCE

The United Nations Sustainable Development Goals ("**UNSDGs**") are a set of goals under the 2030 Agenda for Sustainable Development (2030 Agenda), which is a global development framework adopted by World Leaders at the United Nations Sustainable Development Summit in September 2015. Nanofilm is committed to and works actively to support the UNSDGs. We contribute to social and economic development in the societies and communities we operate in, as well as do our part on climate action and conducting responsible business activities. Nanofilm supports all the 17 UNSDGs and contributes in particular to the following 10 goals – SDG 3 Good Health and Well-Being, SDG 4 Quality Education, SDG 5 Gender Equality, SDG 6 Clean Water and Sanitation, SDG 7 Affordable and Clean Energy, SDG 8 Decent Work and Economic Growth, SDG 9 Industry, Innovation and Infrastructure, SDG 12 Responsible Consumption and Production, SDG 13 Climate action, and SDG 16 Peace, Justice and Strong Institutions. In FY2022, we have revised our long-term targets to better align them with our sustainability focus areas. We have rebased our 2030's target with reference to FY2022's data as FY2022's data captures the group's operations fully, providing a fairer comparison. Our sustainability focus areas, targets and contribution to the various SDGs is described in the table below.

OUR 2030 TARGETS MEASURED AGAINST 2022 BASE YEAR

	Metric	FY2022 PERFORMANCE	2030 TARGET
SUSTAINABLE INNOVATION	**Metric:** R&D and engineering expenses as a percentage of total revenue	7.7%	>7%
ENVIRONMENT	**Metric:** GHG emissions intensity (tCO$_2$e/'000 production hours)	54.2	40% reduction in GHG intensity to achieve 32.5 tCO$_2$e/'000 production hours[3]
	Metric: Percentage of total energy use from renewable sources or purchased carbon credits	0%	At least 50%
	Metric: Production wastewater discharge intensity (m^3/'000 production hours)	444.9m^3	80% reduction in production wastewater discharge intensity to achieve 89.0 m^3/'000
SOCIAL	**Metric:** Annual staff training (average hours/employee)	39.7	40
	Metric: Rate of recordable work-related injuries (per 1,000,000 hours worked)[2]	1.64	<1.0
RESPONSIBLE BUSINESS	**Metric:** % of critical direct suppliers covered by human rights, environmental, health and safety due diligence screening	100%	100%
	Metric: % of new employees who have completed the Compliance and Code of Conduct training within 6 months of employment	100%	100%
	Metric: No. of instances of forced and child labour in operations	Zero instances	Zero instances

2   Number of total recordable work-related injuries over the total man hours for the period (per 1,000,000 hours worked)
3   Production hours refers to machine production hours.

SUSTAINABLE INNOVATION

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AS A DEEP-TECH COMPANY, WE BELIEVE THAT INNOVATION AND SUSTAINABILITY ARE INTERDEPENDENT. WE WILL CONTINUE TO INNOVATE FOR SUSTAINABILITY AND BE A DRIVER OF CHANGE, STRIKING A BALANCE BETWEEN MAXIMISING INNOVATION WHILE MINIMISING HAZARDS TO THE PEOPLE AND THE ENVIRONMENT.

TECHNOLOGY-BASED SOLUTIONS

Since our establishment in 1999, Nanofilm has become a leading provider of nanotechnology solutions, leveraging our proprietary technologies, core competencies in R&D, engineering and production, to provide technology-based solutions across a wide range of industries. Our portfolio of solutions encompass advanced materials, nanofabrication and equipment engineering. We formulate advanced materials and nanofabrication processes that contribute to a more sustainable environment and our solutions serve as key catalysts enabling our customers to achieve high value-add advancements in customised end-products, through the replacement of valuable finite base materials, enabling functionalities and extending product lifespans.

With the flexibility and advantages afforded by our proprietary technologies, our solutions are adaptable for use across numerous applications and we have launched into new markets which were previously unavailable for conventional technologies. In Nanofilm, we reliably expand the applications of our technologies, matching new materials and new techniques with new applications.

Currently, Nanofilm holds more than 90 patents and trademarks, with more than 400 employees in our global operations engaged in research and development (R&D) and engineering.

SUSTAINABLE 'GREEN PLATING'

As the global economy pushes for decarbonisation, many industries are looking to sustainable alternatives to industrial processes, including surface treatments. There's a growing need for more environmentally friendly surface treatment solutions, in particular for anti-corrosion and protection, in replacement of the traditional electroplating process which is pollutive in nature.

Electroplating is the process of coating of a metal object with another metal using an electrical current passed through a chemical solution, mostly to prevent corrosion of metal or for decorative purposes. Electroplating operations involve the use of toxic and corrosive chemicals and can produce emissions of hazardous air pollutants, including heavy metals and cyanide, and volatile organic compounds, all of which contribute to health concerns of workers and the larger community. As such, the electroplating industry comes under very stringent environmental-protection laws and regulations in China and in many other countries.

Today, electroplating process is still widely used in the metal components in the fast growing and high-volume advanced battery business. However, due to its extremely pollutive nature, the approval of governmental licensing to conduct electroplating operations is thus very difficult (if not impossible) to obtain in many jurisdictions, which create production and capacity constraints. With these critical challenges created by the pollutive electroplating process and with today's more environmentally conscious world, there is a strong demand for more environmentally friendly coating solutions for anti-corrosion and protection in the advanced battery business. With the shift towards new energy vehicles driven by a focus on environmental, social and corporate governance ("**ESG**") factors, the advanced battery industry is also expected to continue to develop at a rapid pace.

Last year, ApexTech was incorporated to tap on opportunities in the new energy advanced batteries space.

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By combining Nanofilm's advanced vacuum solutions with Everwin's manufacturing capabilities, ApexTech is well-positioned to exploit opportunities in the commercialisation of vacuum coating technologies for metal components in electric vehicle battery packs and energy storage systems, thereby replacing the traditional electroplating with a sustainable, scalable, cost-competitive and more environmentally friendly solution. ApexTech will also be well-positioned to penetrate more industries and applications outside of electric vehicles and energy storage systems, with the aim of replacing electroplating in other domains over the longer term.

ELECTROPLATING OVERVIEW

SIMPLIFIED ELECTROPLATING & WASTEWATER TREATMENT PROCESS

Chromium Plating
Chromium plating is typically used on the metallic components in advanced batteries

−+

Cathode

Anode

Sb-Pb

SUBSTRATE

Cr^{3+}
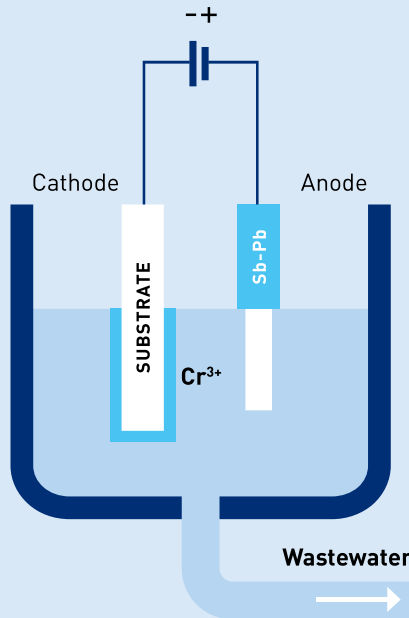
Wastewater

Wastewater Treatment

COAGULATION

FLOCCULATION

SEDIMENTATION

Treated Effluent

Sludge

GENERAL PURPOSE OF ELECTROPLATING

Acts as a protective barrier of the substrate

• Reduces friction and prevents tarnishing

• Wear and tear protection

• Corrosion protection

Decorative purposes, aesthetic appeal

• Can make inexpensive metals appear higher quality and more expensive

• Able to achieve various colours, depending on materials used

SUSTAINABLE ALTERNATIVE TO ELECTROPLATING

ELECTROPLATING CHALLENGES

● **Pollutive process**

• Chemical process, involving the use of heavy metals and acidic solutions
• Byproducts of electroplating are hazardous substances, which need to be treated properly prior to disposal
• Health concerns over prolonged exposure to these known carcinogens

● **Limited capacity with low chance of expansion**

• Given the environmental concerns, many countries are phasing out electroplating
• New licenses for electroplating workshops are tightly controlled in China; additional licenses for existing electroplating workshops are difficult to obtain
• With demand for functional performance on these metallic parts expected to increase, companies are actively sourcing for alternate solutions

APEXTECH'S VALUE PROPOSITION

An effective & sustainable alternative to electroplating

● **Environmentally friendly solution**

● **Vacuum coating process**
• No chemicals utilised in the process, coating is applied via plasma
• No wastewater from coating, ApexTech's costing is a dry process; hence, no treated by products, eliminating waste
• No toxic air pollutants emitted

● **Similar or superior performance**
• Able to achieve functional performance as required by customers

● **Cost-effective solution**
• Comparable to electroplating with scale

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CONTINUOUS INNOVATION

As a Deep-Tech company, we seek to improve our technology and services through constant R&D investments. In FY2022, our R&D investments amounted to 7.7% of our total revenue, in line with our target to maintain R&D spending above 5.0%. By 2030, we aim to invest more than 7% of our total revenue in R&D and engineering as we grow the company innovatively and sustainably.

We have always ensured that all our investments in R&D and innovation do not violate any rules and regulations concerning safety, environment, human rights, child labour, anti-bribery and anti-corruption. We will continue to uphold this approach and provide innovative and sustainable solutions to more industry use cases.

We have also built a robust and competent R&D team to support the group in all aspects of technical innovations. In 2022 we have seen an increase in R&D personnel and engineers as compared to 2021 as we ramp up R&D investments to penetrate new exciting areas of growth and showing our commitment to invest in innovation, we have more than 400 staff who are engaged in R&D and engineering in 2022.

OPERATIONAL EXCELLENCE AND CONTINUOUS IMPROVEMENT

Many of our innovations and technologies are developed with environmental sustainability in mind. We constantly seek improvements in our operational processes and systems – not only to improve efficiency, but also to reduce the impact of our business on the environment. Our Operational Excellence Suite covers aspects on manufacturing operational systems (MES, QTS, PTS)[4], LEAN system thinking, process transformation, customer engagement, talent management, sustainability, and technology, and guides the day-to-day operation of our business. Our production facilities are also certified to ISO9001:2015 Quality Management System to ensure we consistently maintain our standards and quality of production.

We are undergoing digital transformation as we believe that disruptive innovations and transition toward Industry 4.0 are critical to Nanofilm's success, and will continue to drive digitisation, connectivity, and automation in our production processes.

LEAN SYSTEM THINKING

- Since its inception in mid-2017, we have continued to apply LEAN system thinking into our daily business operations. In FY2022, we completed 95 LEAN projects, covering processes such as reducing cycle time of our industrial equipment, improving maintenance downtime, inventory cycle optimisation and waste reduction. Since FY2017, over 1,300 LEAN projects have been completed. These LEAN projects not only improve our operational efficiencies and productivity, but also help to improve the cost structures for the entire group.

- **Key areas of focus for LEAN projects in 2022:**
  - Improving operational efficiencies
  - Improving production quality and productivity
  - Waste reduction and costs optimisation

MES, QTS MOVE TOWARDS INDUSTRY 4.0

We are progressing on our goal to move towards Industry 4.0 (i.e. the Fourth Industrial Revolution) in our manufacturing operations. We have completed the implementation of SAP systems group wide in 2021 and have already taken steps to improve our MES, QTS, PTS systems[4].

We have also embarked on the journey of automation and robotics implementation in our manufacturing lines, these includes remote diagnostics tools to assist in inspecting coating quality, robotic welding and process transformation on wire coiling, automated loading and unloading, sorting and visual inspection. We intend to further enhance our smart manufacturing processes and plan to further use robotics and automation in our manufacturing lines where achievable.

NEW TECHNOLOGY SOLUTIONS

Electro-TAC

In Nanofilm, we have introduced Electric Discharge Machining ("**EDM**") electrodes, which focusing on copper/brass electric discharge machining electrodes coated with TAC coating and manufacture copper tungsten electrodes by depositing copper and tungsten layer by layer.

Copper electrodes are manufactured to customer needs and the contact edge is coated with our proprietary TAC coating. This lowers the cost of an electrode while the coating provides two distinctive advantages: that of a harder edge and good conductivity for EDM action. The life of the electrode will also be extended. If required, the copper can be re-coated. This contributes to the environment as the frequency of replacing parts will be reduced when the longevity of the electrode increases.

Launch of Rainbow-TAC solution

The Group has launched the new Rainbow-TAC, the latest Tetrahedral Amorphous Carbon ("**TAC**") coating. With exceptionally high hardness, ultra-thin coating thickness and low friction coefficient, Rainbow-TAC was designed to surpass the limits of existing TAC coatings in high-intensity machining operations.

In order to produce highly adhesive TAC coatings at lower temperatures, we used FCVA technology in all coatings, where the coating process is performed in an environmentally friendly manner.

ENVIRONMENT

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Nanofilm's aim is to keep any adverse impact on the environment and climate as low as possible. To achieve this, we rely on high global environmental management standards and targeted measures such as retrofitting our wastewater treatment systems to allow for recycling of water from our operations.

MANAGING OUR CARBON FOOTPRINT
**GRI 305-1, GRI 305-2, GRI 305-4**

We aim to achieve the highest possible manufacturing performance with the lowest possible energy consumption through optimisation of our operations. We started to monitor and measure our energy consumption and greenhouse gas emissions (GHG) in FY2020. In FY2021, we have included performance data from our Vietnam operations and in FY2022, operations from Yizheng, China and Osaka, Japan are included, as part of the move to include all material operations across the Group.

In FY2022, Nanofilm generated a total of 72,607 tonnes of carbon dioxide equivalent (tCO_2e) from our Singapore, China, Vietnam and Japan operations. This is approximately 5% more than what we generated in FY2021 due to the addition of two more sites, Yizheng and Osaka, to our overall data consolidation and also with the full operationalisation of Shanghai Plant 2.

Our Scope 1 emissions was 272 tCO_2e or approximately 0.4% of the overall GHG emissions while our Scope 2 emissions was 72,335 tCO_2e or approximately 99% of the overall GHG emissions. The sharp decrease in Scope 1 emissions in FY2022 was due to the reduction in use of diesel for temporary power generators usage at Shanghai Plant 2 once the plant was operational. The Scope 2 emissions is attributable largely to purchased electricity used in our manufacturing plants. Scope 2 emissions in FY2022 increased by approximately 9% compared to FY2021.

The GHG emission intensity for FY2022 is 54.2 tCO_2e per thousand ('000) machine production hours, which is also an increase of approximately 4% compared to the GHG emission intensity of 52.1 tCO_2e per thousand machine production hours in FY2021. We shall continue to monitor the emissions intensity for the various sites and improve the efficiency of our operational processes. We aim to reduce our GHG emissions intensity by 40% to achieve 32.5 tCO_2e/'000 production hours by 2030.

SCOPE 1 AND 2 GHG EMISSIONS
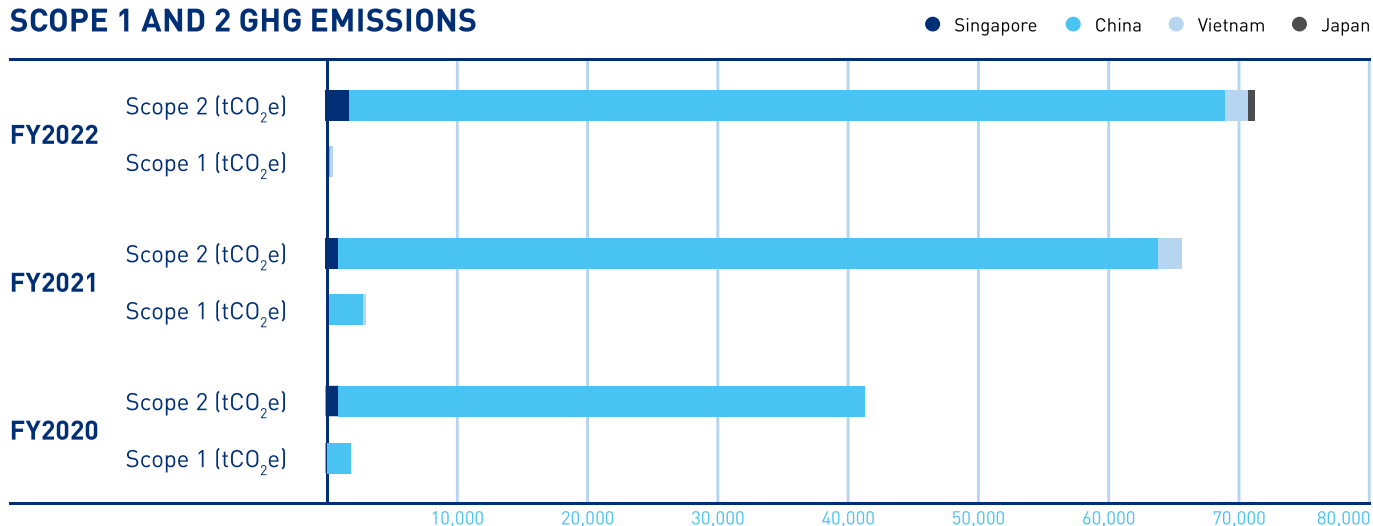
	FY2020		FY2021		FY2022	
	SCOPE 1 (tCO_2e)	SCOPE 2 (tCO_2e)	SCOPE 1 (tCO_2e)	SCOPE 2 (tCO_2e)	SCOPE 1 (tCO_2e)	SCOPE 2 (tCO_2e)
Singapore	6	1,201	7	1,035	7	1,073
China	1,595	41,089	2,455	63,909	264	69,968
Vietnam	–	–	1	1,601	0	1,085
Japan	–	–	–	–	–	209
Total	1,601	42,290	2,463	66,545	272	72,335

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GHG EMISSION INTENSITY
SCOPE 1&2 GHG EMISSION INTENSITY
(tCO_2e/'000 machine production hours)

FY2022	54.2
FY2021	52.1

* FY2020's intensity figures have been excluded as the data were not comparable
FY2022 data includes two additional sites, Yizheng (China) and Osaka (Japan)

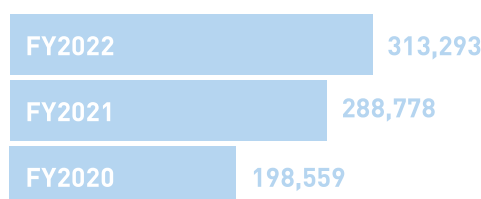### ENERGY EFFICIENCY
GRI 302-1, GRI 302-3

Regular investment in the energy efficiency of our manufacturing operations has a long-term positive effect on the environment and our competitiveness. We have started to monitor and measure our energy usage at the different sites in FY2020 and are trying to better understand the factors that could have a significant impact on our energy consumption. In FY2022, the Group's overall energy consumption was 317,384 GJ, with electricity consumption contributing to 99% of overall energy consumed. The energy consumed in FY2022 was 2% less than FY2021 primarily due to the large reduction in fuel (diesel) used previously by Shanghai Plant 2 prior to its operationalisation. The energy intensity for FY2022 based on machine production hours was approximately 236.8 GJ/'000 production, which is approximately 2% less than FY2021's value of 243.4 GJ/'000 production hours.

ENERGY CONSUMED WITHIN THE ORGANISATION

ENERGY CONSUMED FROM FUEL (GJ)

FY2022	4,091
FY2021	33,566
FY2020	21,339
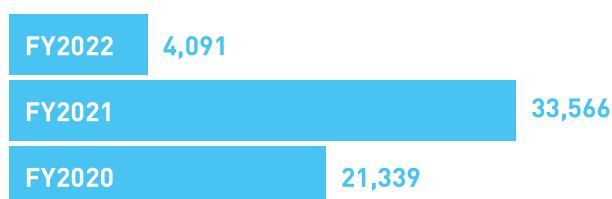
ENERGY CONSUMED FROM ELECTRICITY (GJ)

FY2022	313,293
FY2021	288,778
FY2020	198,559

Energy From Renewable Sources

Apart from managing our energy consumption, we also seek to use energy from renewable sources to reduce our carbon footprint. By investing in energy efficiency, we not only help protect the environment but can also lower our financial costs. We are committed to using renewable energy including solar power to reduce the Group's reliance on fossil fuel-generated electricity. We are ramping up on our efforts to install solar panels at our manufacturing facilities and have kick-started solar panel installation at our Shanghai facilities. It is also the Group's goal by 2030 to have at least 50% of our total energy consumed to be from renewable sources or purchased carbon credits.

SUSTAINABILITY
REPORT

WATER CONSERVATION AND RECYCLING
GRI 303-1, GRI 303-2, GRI 303-3, GRI 303-4, GRI 303-5

We value the importance of our planet's natural resources and strive to adhere to high standards to responsibly manage our environmental impact. In response to the growing concerns related to water as a natural resource, Nanofilm has adopted a wide range of measures to reduce water consumption at our factories, installing water-efficient fittings and raising awareness of water scarcity issues among our employees.

In FY2022, we have consumed 708,827 cubic metres (m^3) of water, all of which is obtained from third-party water. Of the total water consumed, 654,683 m^3 is used for production, this increase in volume compared to 489,809 m^3 consumed in FY2021 is due largely to an increase in production at our Shanghai site as well as the inclusion of the performance data from our Yizheng and Japan site, which was previously excluded in FY2021's data consolidation. In FY2022, due to the COVID-19 lockdown in Shanghai, Nanofilm was required to implement a "closed-loop manufacturing system" to keep production running, isolating workers from the outside environment. This led to a two-fold increase in the number of workers staying in Nanofilm's housing facilities at the site in Shanghai and an increase in electricity and water consumption. However, due to the manner in which the temporary accommodation was set up at the Shanghai site, we are unable to segregate the water and electricity consumed by the housing facilities and the production. FY2022's water consumption and production water discharge figures thus covers both the housing facilities and production in Shanghai.

Consequently, the total volume of water discharged from our production facilities in FY2022[5] was also greater, amounting to 596,257 m^3. Our production water discharge intensity for FY2022 (based on production hours) was 444.9 m^3/'000 production hours. This is a 63% increase from FY2021's intensity of 273.3 m^3/'000 production hours and resulted from us being unable to accurately breakdown the water consumed by housing facilities or production. By 2030, we aim to reduce 80% of our water discharge intensity to achieve 89.0 m^3/'000 production hours. We will continue to monitor our performance and report our progress annually.

In China, 100% of the water discharged from production is treated. We have invested significantly over the years in evaporative wastewater and water recycling system that reduces water discharge. In addition, we will continue to install additional water recycling systems to drive towards zero production water discharge. We plan to bring this good practice from our China production facilities to the rest of our operations globally, with the aim of having zero water discharge from our production eventually.

In Singapore, wastewater discharge is monitored and sent for lab testing periodically to ensure that it is within the National Environment Agency ("**NEA**") guidelines.

5   The amount of water discharged for Singapore, Vietnam and Japan is assumed to be the same as the amount of water that was withdrawn.

SUSTAINABILITY REPORT

PRODUCTION WATER WITHDRAWAL AND DISCHARGE (M³)

● Singapore ● China ● Vietnam ● Japan
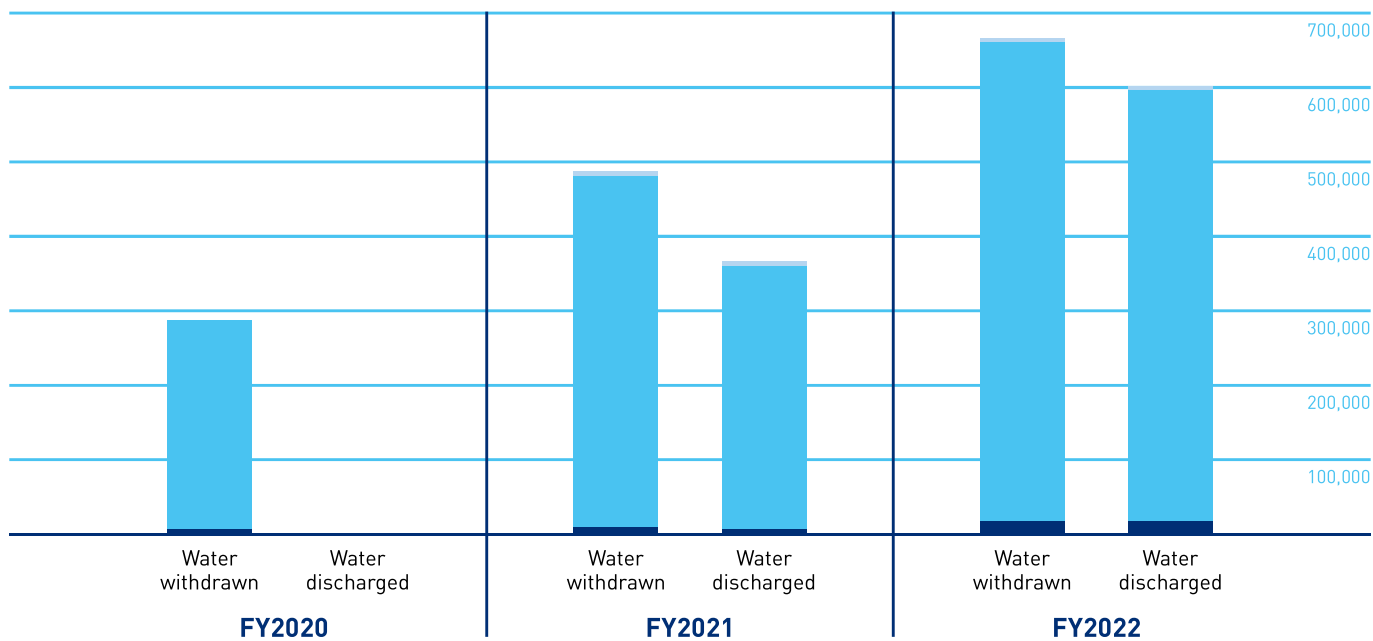
Water discharged is not disclosed in FY2020

M³	WATER STRESS*	FY2020		FY2021		FY2022	
		WATER WITHDRAWN	WATER DISCHARGED	WATER WITHDRAWN	WATER DISCHARGED	WATER WITHDRAWN	WATER DISCHARGED
Singapore	High	6,527	6,527	7,800	7,800	18,228	18,228
China (Yizheng & Shanghai)	High	286,328	286,150	480,858	352,989	634,498	576,463
Vietnam (Hai Duong)	Low to Medium	–	–	1,151	1,151	1,949	1,559
Japan (Osaka)	Extremely High	–	–	–	–	7	7

* Water stress levels based on future projections in 2040. Analysis was done using WRI Aqueduct Water Risk Atlas Tool.

WATER DISCHARGE INTENSITY (M³/'000 PRODUCTION HOURS)

FY2022	444.9
FY2021	273.3
FY2020	300.7
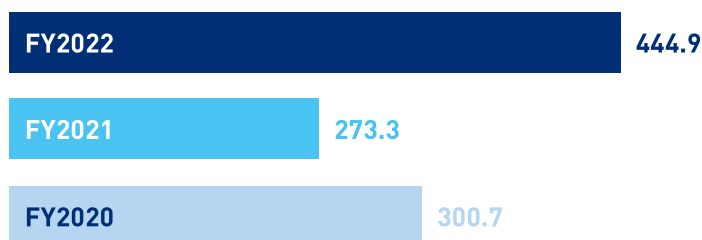
SUSTAINABILITY
REPORT

WASTE MANAGEMENT
GRI 306-1, GRI 306-2, GRI 306-3

The volume of waste materials generated from Nanofilm's production process is not significant and mostly non-hazardous. Any waste engine oils and materials recovered from maintenance of machinery will be aggregated in an isolated container and disposed through proper industrial disposal channels. Hazardous waste generated is also properly disposed through third party engagements. In FY2022, a total of 669.2 tonnes of non-hazardous and hazardous waste was generated from our operations globally, which is approximately 60% more than the volume of waste generated in FY2021. This increase was due to an increase in production at the Shanghai site and the operation commencement of the new plant 2 facility, which in turn resulted in more waste generated. The hazardous waste comprises approximately 50% of our total waste generated, most of which is from waste cleaning solutions and emulsions from our plants in China.

HAZARDOUS WASTE

	FY2021			FY2022		
	TONNES	LITER	PC	TONNES	LITER	PC
Singapore	6.7	–	–	1.1	5,508.0	90.0
China	138.9	–	–	330.7	–	–
Vietnam	2.7	–	–	1.2	–	–
Japan	–	–	–	–	–	–
Total	148.3	–	–	332.9	5,508.0	90.0

*   Collection of data on hazardous waste generated started in FY2021. Thus data was not reported for FY2020.

NON-HAZARDOUS WASTE (TONNES)

	FY2020	FY2021	FY2022
Singapore	7.3	–	–
China	168.9	261.7	298.3
Vietnam	0.0	9.7	38.0
Japan	0.0	–	–
Total	176.2	271.4	336.3

*   General waste from our operations in Singapore and Japan are gathered and properly disposed through building's shared services. We are currently enhancing our data collection process for our non-hazardous waste collected in Singapore and Japan so as to be able to obtain more accurate data for reporting in subsequent years.

SOCIAL

SUSTAINABILITY
REPORT

We have a comprehensive performance appraisal programme and rewards system based on the result of employee appraisal. The performance appraisal programme is essential for us to deliver our corporate performance targets and goals; align the interest of our employees with appropriate incentives; understand the skill level of employees; and identify the need for appropriate training programmes that can be designed to close the skill gaps.

We emphasise on the career path and progression of our employees, and have built several two-way communication channels to ensure that the career development needs of our employees are taken into consideration whenever possible. All employees are offered training opportunities, based on the needs identified.
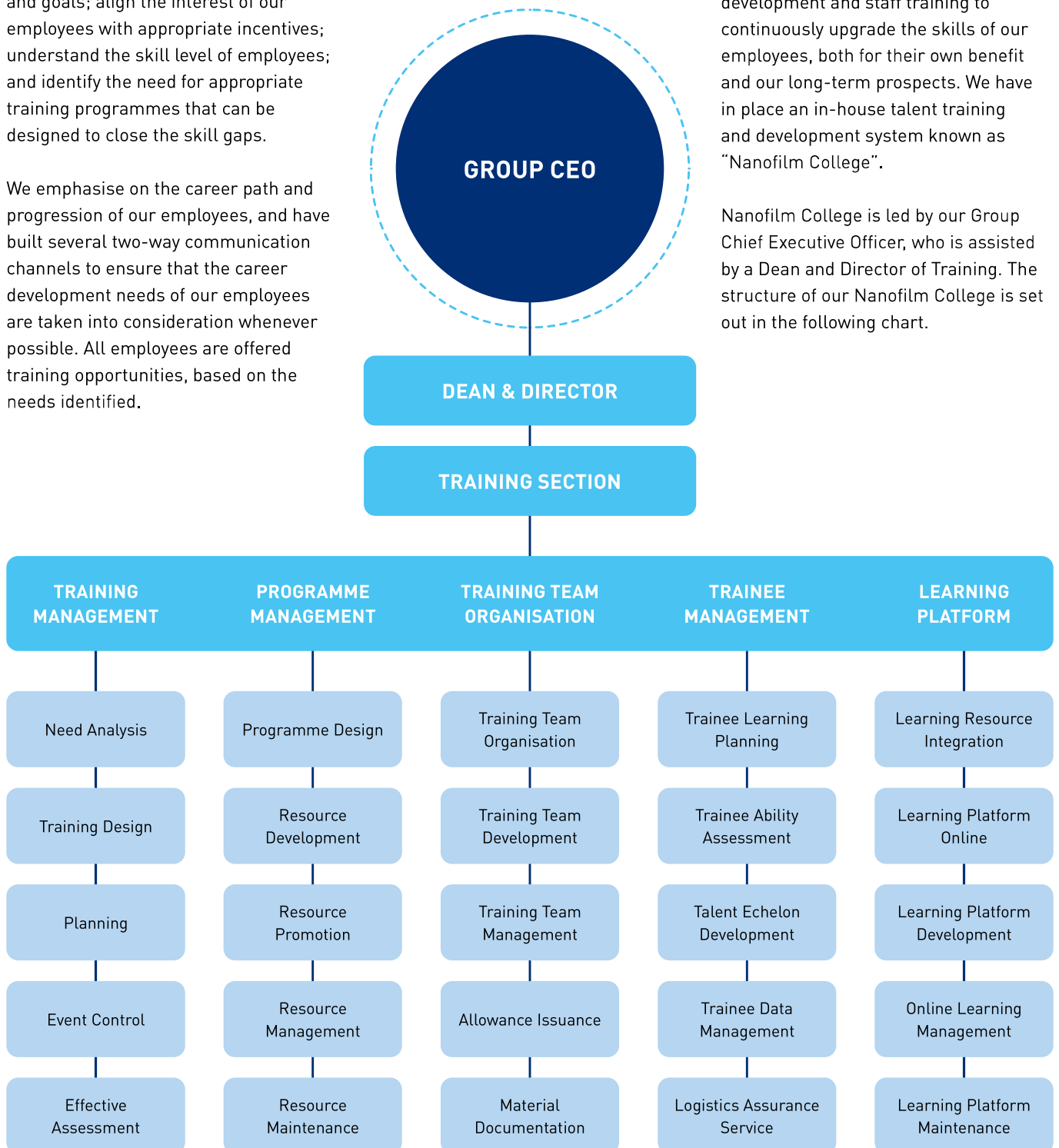
Through these efforts, we are well-positioned to provide a constructive working experience to our employees and contribute to the economic development and skilled labour resources of the local community.

TALENT DEVELOPMENT AND RETENTION
GRI 404-1, GRI 404-2

We believe people are the cornerstone of our business and invest in talent development and staff training to continuously upgrade the skills of our employees, both for their own benefit and our long-term prospects. We have in place an in-house talent training and development system known as "Nanofilm College".

Nanofilm College is led by our Group Chief Executive Officer, who is assisted by a Dean and Director of Training. The structure of our Nanofilm College is set out in the following chart.

GROUP CEO

DEAN & DIRECTOR

TRAINING SECTION

TRAINING MANAGEMENT	PROGRAMME MANAGEMENT	TRAINING TEAM ORGANISATION	TRAINEE MANAGEMENT	LEARNING PLATFORM
Need Analysis	Programme Design	Training Team Organisation	Trainee Learning Planning	Learning Resource Integration
Training Design	Resource Development	Training Team Development	Trainee Ability Assessment	Learning Platform Online
Planning	Resource Promotion	Training Team Management	Talent Echelon Development	Learning Platform Development
Event Control	Resource Management	Allowance Issuance	Trainee Data Management	Online Learning Management
Effective Assessment	Resource Maintenance	Material Documentation	Logistics Assurance Service	Learning Platform Maintenance

SUSTAINABILITY REPORT

COMMUNICATION & FEEDBACK
- Performance review
- Job application assessments
- Development and training mechanisms
- Salary adjustments
- Job objectives

OVERVIEW OF NANOFILM COLLEGE TRAINING PROCESS

Nanofilm College is a structured training and development system which commences once a new employee joins our Group, and begins with an orientation and on-the-job training ("**OJT**"). It continues throughout his progression in our Group, and includes specialised training for promotions.

NURTURE & DEVELOPMENT
- Self learning
- OJT
- Role expansion
- Programme participation
- Training & job rotation

TALENT SELECTION
- From the talent pool review, via qualifications and assessments, select excellent core employees

TALENT POOL & REVIEW
- Result, capabilities, quality assessment
- Potential and trends
- Development and training mechanism

PROMOTION & DEVELOPMENT
- Recommend suitable employees for promotion by looking at role matchings, track records and past results of employees

Nanofilm College currently offers over 200 training courses across the following course categories: (a) Procurement & Supply Chain Management, (b) LEAN Production Management, (c) R&D, (d) Standard & Internal Auditing, (e) General Management Skill, (f) Environment Health and Safety, (g) Quality, (h) corporate function systems, (i) technical and operations.

Our training programmes are designed to ensure that our employees are competent in their roles and responsibilities, and include both technical and professional training, as well as training designed to develop the soft skills of our employees.

In 2022, Nanofilm college has provided training for a total of 101,941 trainee hours. This has exceeded our target of 60,000 trainee hours annually. We strive to continue providing our employees with focused training to help them develop their competencies. Taking into consideration the training hours provided by Nanofilm College as well as training conducted by individual sites, we have invested an average of 39.7 hours of training for each employee in FY2022, which is an increase of 13 hours of training per employee compared to FY2021. As part of our people strategy, Nanofilm has committed to continually provide training for our employees. Our target is to ensure that by 2030, each employee would be able to achieve on average at least 40 hours of training annually.

AVERAGE TRAINING HOURS PER EMPLOYEE

Year	Hours
FY2020	18.0
FY2021	26.5
FY2022	**39.7**
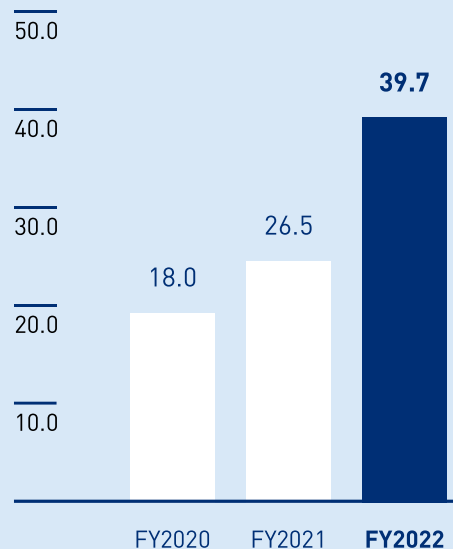
SUSTAINABILITY REPORT

PERFORMANCE APPRAISAL

GRI 404-3

To ensure the Company achieves its goals, we have various performance appraisal methods in place to determine the performance of the Company as well as each individual employee.

The employee performance appraisal comprises quantifiable and qualitative evaluation criteria. In addition, we actively collect performance information for each employee through inputs from direct supervisors, as well as periodical employee communication sessions.

The collected information allows us to understand the performance and skills development needs of each team and individual employee from multiple aspects. This is crucial for the Company to develop and design annual training programmes for employees to enhance their skills and aims to improve overall productivity. In FY2022, all permanent employees of Nanofilm received their annual performance appraisal.

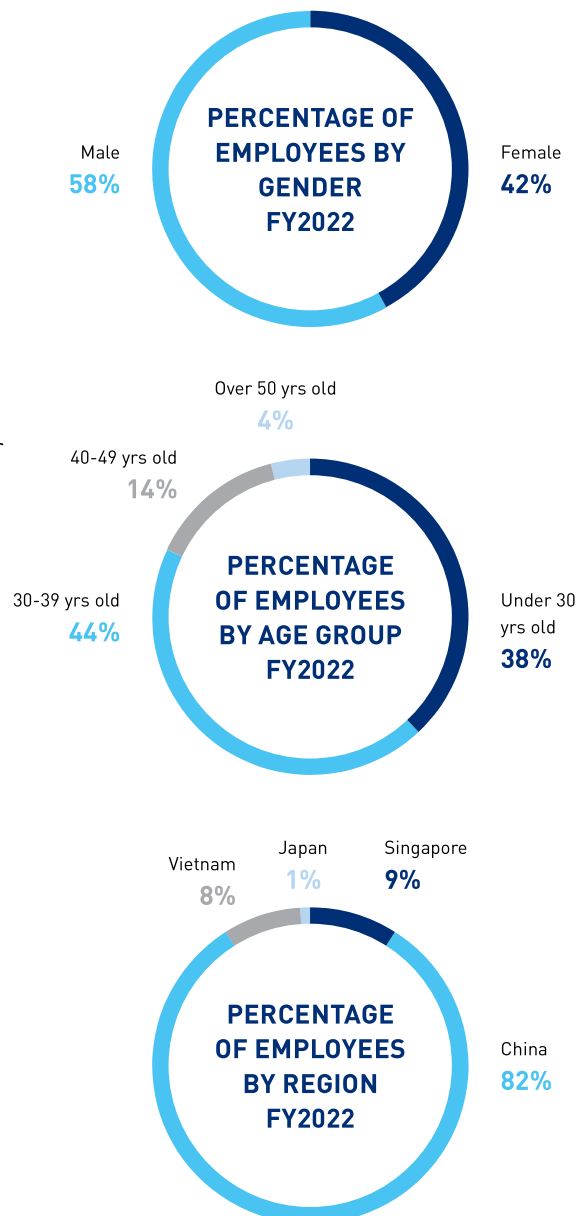**WORKFORCE DIVERSITY AND EQUAL OPPORTUNITY**

GRI 405-1, GRI 406-1

Diversity and inclusion are part of our value system, and our support for social justice and anti-discrimination is also expected by our employees. We provide an environment recognised for its equality and diversity, and everyone is treated with fairness, respect and dignity. We do not tolerate any discrimination or harassment of colleagues or others stakeholders that we work with, and this is stated in our code of conduct. In FY2022, we had zero incidents of discrimination.

Inclusion to us means that everyone in Nanofilm can feel that they are part of one team, are able to bring their whole self to work, and have their voices heard and respected. We also want to leverage the competitive advantage that diverse teams and inclusive cultures can bring to our business, and meet our employees' demand for working in a company that values diversity and inclusion.

We work systematically with diversity and inclusion through our key human resources processes, such as recruitment, succession planning, performance management and leadership development.

In FY2022, our total staff strength was 2,658, with approximately 42% of our global workforce comprising females. Approximately 82% of our employees are under 30 or between 30 to 39 years old. The majority (82%) of our employees are based in China, followed by Vietnam (8%), Singapore (9%) and Japan. We believe that inclusive hiring also enriches the company's work culture. In our Shanghai and Japan operations, we hire persons with disabilities to support our operations and corporate support functions, which has also received local authorities' commendation. Currently, they comprise 17 individuals supporting operations, administrative, procurement and finance. We have faith in people's uncovered abilities, regardless of any disability they may have, and we strive to maximise their talents in becoming a corporate group in which employees can continue to work with enthusiasm and pride.

PERCENTAGE OF EMPLOYEES BY GENDER FY2022

Male **58%**

Female **42%**

PERCENTAGE OF EMPLOYEES BY AGE GROUP FY2022

Over 50 yrs old **4%**

40-49 yrs old **14%**

30-39 yrs old **44%**

Under 30 yrs old **38%**

PERCENTAGE OF EMPLOYEES BY REGION FY2022

Vietnam **8%**

Japan **1%**

Singapore **9%**

China **82%**

SUSTAINABILITY REPORT

EMPLOYEES WELFARE AND ENCOURAGING WORK-LIFE BALANCE
GRI 401-1, GRI 401-2

We adopt a holistic approach and adhere to one of the best-in-class frameworks to take care of our employees' needs and well-being. On top of offering great working conditions, we ensure that high quality hygiene and living standards are maintained in our dormitories as well as the staff canteen in our Shanghai facility. We conduct periodic employees' surveys to gather feedback and seek continuous improvement on the quality of our staff facilities.

We have in place a robust manpower planning policy to ensure that our employees enjoy a balanced work-life culture while keeping operations efficient. We are committed to maintain our good employee welfare practices and seek further improvements as we expand.

With the major easing of COVID-19 rules from the Singapore government at the beginning of the year 2023, we have managed to organise a Chinese New Year Dinner with all of our Singapore coll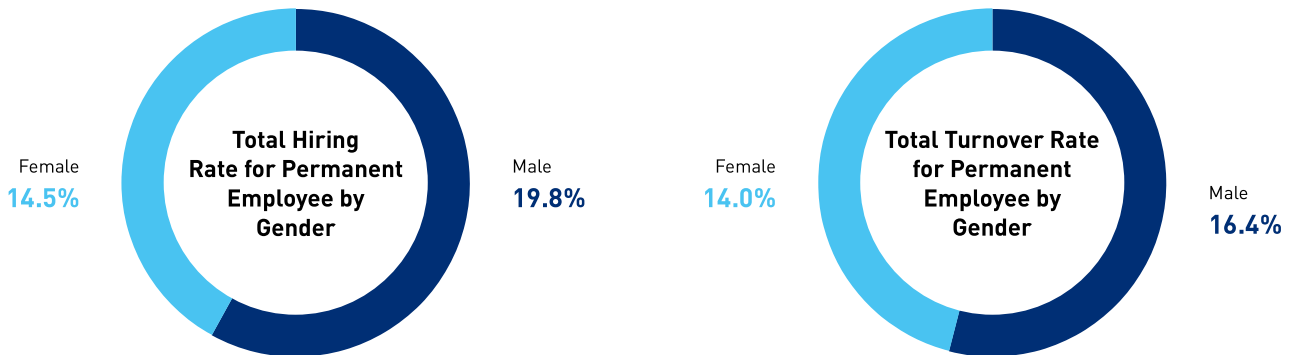eagues. The objective was to boost employees' morale, validate their contributions to the company and promote their creativity. This also aids in creating better-focused teams that are also well-motivated.

In addition, we believe that a good office environment contributes to employees' health and well-being. In our new office at Tai Seng Drive, we provide a quality workspace design, that focuses on these several concepts of building performances from The WELL Building Standard: Water, Light and Comfort.
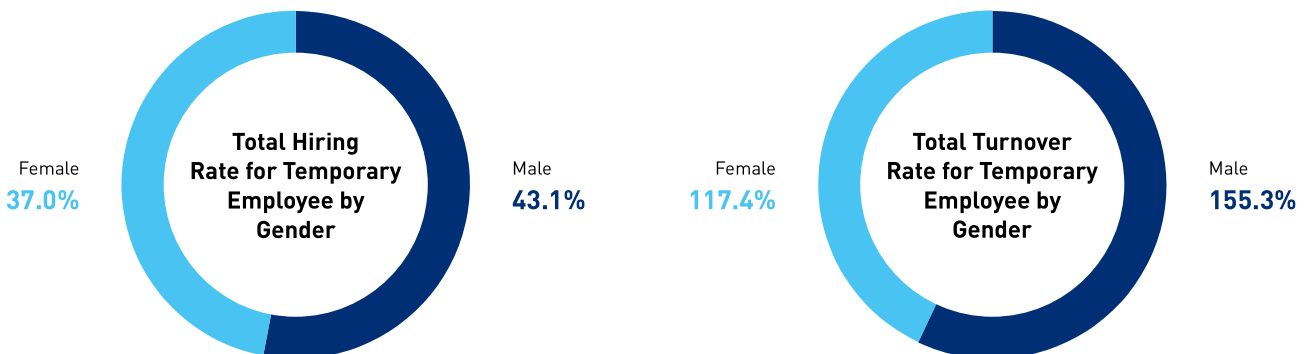
In order to create distraction-free, comfortable environments, the office provides employees with different breakout areas and meeting rooms for brainstorming purposes. It creates quiet zones and limits sound from building systems in order to optimise employees' emotional health.

Our full-time employees enjoy benefits including health care coverage; employer-funded contributions to retirement benefits stems; insurances including group hospital insurance, disability and invalidity coverage, as well as different leave types, such as annual leave, parental leave, medical and hospitalisation leave, etc.

In FY2022, the permanent employees overall hiring rate and turnover rate for the Group was 34.3% and 30.3% respectively.

Total Hiring Rate for Permanent Employee by Gender
Female 14.5%   Male 19.8%

Total Turnover Rate for Permanent Employee by Gender
Female 14.0%   Male 16.4%

The temporary employees overall hiring rate and turnover rate for the Group was 80.1% and 272.7% respectively. The higher hiring and turnover rate for temporary employees are attributed to the seasonality of the supply chain and the nature of the industry at the sites we operate in.

Total Hiring Rate for Temporary Employee by Gender
Female 37.0%   Male 43.1%

Total Turnover Rate for Temporary Employee by Gender
Female 117.4%   Male 155.3%

SUSTAINABILITY REPORT

MANAGING OCCUPATIONAL HEALTH AND SAFETY
GRI 403-1, GRI 403-2, GRI 403-3, GRI 403-4, GRI 403-5, GRI 403-6, GRI 403-9

The health and safety of our employees in the workplace is of particular importance to us. We place especially high priority on complying with the sites' health and safety policies, statutory regulations and industry standards, as well as our global customers' world class standards. Our Shanghai and Singapore sites are certified to ISO 45001:2019 (Occupational Health and Safety Management System). Although Vietnam is not certified to ISO 45001:2019, the site also has in place a Safety, Health and Environment Management System. At these sites in Shanghai, Singapore and Vietnam, all activities and processes are evaluated and risk assessments carried out to ensure that hazards are identified and controls put in place to mitigate the risks. A safety committee is also established at our sites in Shanghai, Yizheng, Singapore, Vietnam and Japan consisting of employee representatives from various departments – these personnel are responsible for monitoring of safety practices and conducting monthly safety inspections.

Pre-employment health checks are provided to employees who are in roles that may present occupational hazards, such as loud noises causing noise induced deafness. These employees have to undergo regular health monitoring to ensure that they do not suffer from any occupational health diseases. We carry out local initiatives to create a health-promoting work environment and foster our employees' awareness of a healthy lifestyle. In China, our canteens have in place nutritional menus for employees; health check-ups are also arranged for staff so that employees can identify minor health issues before they turn severe. These check-ups also serve as a reminder to employees to adopt a healthy lifestyle and balanced diet.

For the safety of new employees, they must undergo health and safety training covering emergency preparedness, identification of hazards in their work, risk assessments, as well as attend an annual training on occupational health and safety. Likewise, all our suppliers and contractors who work on site are also required to declare their work activities and submit all relevant risk assessments, permits and licenses before they are allowed to commence work. In the event of any safety related incident, an investigation is conducted by the site's safety committee. The outcome is reported to and shared at the Group-wide health and safety meetings which occur twice a year.

We measure our health and safety performance by monitoring our workplace injury rate, accident frequency rate and workplace injury rate across all operating sites within the Group. In FY2022, we have refined the reporting metrics used for reporting health and safety injuries, so as to better align with GRI reporting requirements. Although the rate of recordable work injuries has decreased, the rate of high consequence injuries has increased. In FY2022, we had one case of high consequence work injury that was due to an injury from an employee in the equipment maintenance department. The employee had failed to follow safe work procedures and work instructions related to the machinery and as such, resulted in a serious finger injury. All personnel have since been reminded to adhere to the relevant safe work procedures. The Group will be rolling out more safety awareness programs in FY2023 to remind employees of the need for safe work practices.

By 2030, we aim to have a rate of recordable work injury of less than 1.0 (per one-million man hours worked).

	FY2020	FY2021	FY2022
Rate of fatalities as a result of work-related injury (per 1,000,000 hours worked)	Not reported	Not reported	–
Rate of high-consequence work-related injuries (excluding fatalities) (per 1,000,000 hours worked)	Not reported	Not reported	**0.13**
Rate of recordable work-related injuries (per 1,000,000 hours worked)	1.89	2.14	**1.64**
Total Recordable Injury Rate (TRIR) (per 100 workers)	0.45	0.43	**0.33**

COMMUNITY INVOLVEMENT

We are committed to drive positive and sustainable change for our communities, particularly for vulnerable and underserved groups, in the geographies where we operate. In FY2022, we have donated $28,000 for North East Community Development Council (CDC) and also sponsored $30,000 for the 19th SGX Cares Bull Charge Charity Run 2022. The SGX Cares Bull Charge is a corporate charity initiative that brings together Singapore's financial community and SGX-listed companies to support the needs of underprivileged children and families, persons with disabilities, as well as the elderly. Some of the beneficiaries include AWWA Ltd., Autism Association (Singapore), Fei Yue Community Services, HCSA Community Services and Shared Services for Charities.

RESPONSIBLE BUSINESS

SUSTAINABILITY REPORT

MANAGEMENT APPROACH

We are meticulous in our approach to governance and responsible business. Our governance structure ensures that we monitor and quantify compliance, manage risk as well as maintain customers' and society's confidence and trust.

Under our Group CEO's active direction and in collaboration with our Board of Directors and its committees responsible for performance and compliance review, we hold ourselves to the highest standards of economic, environmental and societal performance as well as compliance with laws, regulations, and corporate policies that govern our operations and practices worldwide.

We have internally appointed a sustainability leader to chair the sustainability team, to provide leadership and direction on the sustainability strategy. The sustainability team is also supported by other expert functions such as supply chain, human resources, finance, procurement, marketing, R&D, operations and legal.

ETHICS AND COMPLIANCE
GRI 2-27, GRI 205-3, GRI 206-1

Sustainability is an integral part of the corporate culture and behaviour in our business.

We have established Group-wide procedures to ensure compliance with legal and regulatory standards as well as internal standards, including our code of conduct. This oversight includes training, communication and consulting activities designed to provide all employees with the information and resources necessary to fulfil their responsibilities and understand their roles in ensuring ethical compliance and behaviour.

Significant resources have also been invested by the Company to ensure that we have in place a robust compliance and integrity platform. We will continue to refine our approach to promote ethical behaviour and integrity both within our organisation and in the entities with which we have relationships with.

Our compliance and integrity programme has three pillars:

Prevention: Enforce policies, code of conduct, risk assessment and internal controls metrics when we onboard new employees and periodically during their tenure.

Early detection: Whistle-blowing platform is in place and each reported incident is independently reviewed and investigated. Internally, we have continuous compliance reviews, controls and internal audits to ensure we pick up any irregularities early.

Response: Disciplinary action on compliance breaches, process adaptation, resolution plans, and remediation of internal control systems. We are committed to continuously fine-tune the policies to seek further improvements going forward.

We aim to maintain for 100% of our new employees to complete the compliance code of conduct training and for existing employees to stay up to date on the latest group-wide compliance and code of conduct through periodic compulsory training. It is our Group's policy to also ensure that there is fair competition in the conduct of the Company's business, in its relationships with customers, suppliers, competitors and towards its employees.

Our factories are fully compliant with the environmental laws and regulations in the countries that we operate, and ISO 14001:2015 Environmental Management System has been implemented in our plants globally since 2016. We conduct internal and external audits to ensure that all statutory and internal requirements regarding environmental requirements are met. We have also passed our stringent annual environmental, health and social audits performed by our global tier-one customers, in-line with global world-class standards. Any deficiencies or potential areas for improvement are identified during these audits and subsequently addressed by the respective sites.

SUSTAINABILITY
REPORT

In FY2022, there were no cases of significant fines or non-monetary sanctions related to the environmental and socio-economic areas. There were zero cases of legal actions relating to anti-competitive behaviour, anti-trust, and monopoly practices. Our target is to ensure that 100% of new employees attend the Compliance and Code of Conduct training within the first 6 months of joining the company.

SUPPLY CHAIN DUE DILIGENCE
GRI 414-1, GRI 308-1

At Nanofilm, we require our factories to provide fair working hours, a safe work site and an environment free from discrimination regardless of a person's job or location. We also expect our factories to have in place responsible sourcing policies for all our raw materials in use. Naturally, we will also expect our suppliers to do the same. We conduct due diligence screening before onboarding our suppliers to ensure that there are no human rights violations and our raw materials are ethically-sourced (e.g., zero tolerance for bribery and corruption, and responsibly-sourced raw materials from non-conflict areas).

The due diligence screening includes, but not limited to, site visits, background checks, verification of certifications and testing of samples. Business units also ensure that suppliers are sourced from the approved list of suppliers who are also subject to internal reviews periodically as part of our due diligence process. There are also anti-bribery and environmental agreements with our critical vendors to ensure that they continue to be in compliance with our policies as we engage in a long-term relationship with them.

In FY2022, 100% of our critical direct material suppliers were screened based on social and environmental criteria such as presence of environmental policies, waste management practices, policies prohibiting forced and child labour as well as health and safety practices. Our aim is to continue to conduct 100% human rights, environmental, health and safety due diligence screening on critical direct material new suppliers.

PROCUREMENT PRACTICES
GRI 204-1

Procurement is structured in a hybrid manner. For decentralised local purchases, each subsidiary is responsible for selecting its own vendors. While some procurement decisions are controlled by the customer, others are usually based on price, availability and reliability of vendors. We have also in place a system for centralised purchases of standard and higher frequency items, where purchases are controlled by Materials Requirements Planning ("**MRP**") through master supply arrangements with approved suppliers. By purchasing from local vendors, the Group benefits from a shorter delivery time, better technical support and transportation savings. Procuring from domestic markets also helps to boost the local economy and reduce our carbon footprint. In FY2022, 60% of our purchases were sourced from local suppliers.

HUMAN RIGHTS
GRI 408-1, GRI 409-1

We are committed to a safe work environment that is free from and provides for protection against human trafficking and slavery, including forced labour and unlawful child labour. We do not condone human trafficking or slavery in any parts of our organisation. We have also been working closely with our customers to conduct frequent reviews of our operations to prevent incidents of human rights violations within the organisation.

As part of our human rights due diligence process, we have identified 2 countries where there is a risk of child labour and forced labour. Our operations and critical direct suppliers in these 2 countries are required to undergo an annual social compliance audit to ensure that their business practices are in compliance with our Supplier Code of Conduct as well as international best practices on human rights. Our target is to ensure zero instances of forced or child labour in our operations or critical direct suppliers.

SUSTAINABILITY REPORT

BUSINESS CONTINUITY

COVID-19 had a significant impact on businesses and communities globally in FY2022. The Group's operations are distributed across Singapore, China, Japan and Vietnam. In demonstrating our solidarity to join the authorities' efforts to control the pace of the spread of COVID-19, the Group complied with the directives from local governments in the various jurisdictions. In addition, the Group instituted precautionary measures to protect the health and safety of its employees. We also initiated business continuity planning to protect our staff and mitigate the impact on the Group's business operations. With the relaxation of COVID-19 restrictions globally and a return to normal endemic conditions, we shall continue to keep a close eye on our operations, and announce any material changes to our business performance to shareholders on a timely basis, as and when appropriate.

CUSTOMER PRIVACY
GRI 418-1

Protecting the privacy and personal data of our employees and customers is of utmost importance to us. This is an important aspect of the way we create, organise and implement our activities on-line and off-line. Nanofilm has in place technologies and security policies to protect the stored personal data of our users from unauthorised access, improper use, alteration, unlawful or accidental destruction and accidental loss. Nanofilm employees and third-parties who have access to personal data are obliged to respect the privacy of customers and the confidentiality of any personal data which may be shared. The Global IT team is responsible for protecting this data against ransomware attacks which can result in data being leaked. Global IT also has in place cybersecurity defences to protect against phishing and ransomware attacks. In FY2022, we have not received any substantiated complaints concerning breaches of customer privacy. In FY2023, more tools, testing and training will be carried out to minimise the chances of a damaging ransomware or phishing attack.

CUSTOMER HEALTH AND SAFETY
GRI 416-2

Chemical substances are useful in many of the products we sell, however we have a responsibility to ensure that our products are safe, and that the products are produced in a way that protects co-workers and the environment. We are committed to ensuring that our products do not harm our customers' well-being and safety. Our products are sourced from suppliers globally who meet our environmental and social criteria and possess the necessary product certifications. Where required by our customers, our products will also comply with obligations under RoHS and REACH. If our customers require our products to be tested based on EU standards, we will ensure the required testing are conducted. In FY2022, we have no cases of products being non-compliant to Health & Safety standards and zero reports of product recall. Nanofilm has maintained zero product recall in the last 3 years due to our continuous stringent product safety measures, which we will continue to enforce. We aim to maintain zero cases of non-compliance cases and product recall in FY2023.

SUSTAINABILITY
REPORT

FY2022 includes performance from Yizheng and Osaka sites, which were excluded in FY2021's compilation.
FY2021 includes performance from Vietnam site, which were excluded in FY2020's compilation.

SUSTAINABILITY SCORECARD

RESULTS

PERFORMANCE INDICATORS	UNITS	FY2020	FY2021	FY2022
Revenue	S$'million	218	247	237

SUSTAINABLE INNOVATION

PERFORMANCE INDICATORS	UNITS	FY2020	FY2021	FY2022
R&D and engineering expenses	Percentage	5.9	7.1	7.7
Patents and trademarks	Number	>70	>80	>90
Employees engaged in R&D and engineering	Number	>270	>300	>400
Completed LEAN projects	Number	375	373	95

ENVIRONMENT

PERFORMANCE INDICATORS	UNITS	FY2020	FY2021	FY2022
Environmental regulatory compliance incidents	Number	0	0	0
ESG audits from customers	Number	2	2	2
Total carbon footprint	tCO_2e	43,891	69,007	72,607
Carbon footprint intensity	tCO_2e/ 1,000 machine production hours	46.1	52.1	54.2
Total energy consumption	GJ	219,898	322,344	317,384
Energy consumption intensity	GJ/ 1,000 machine production hours	231.0	243.4	236.8
Total water consumed[6]	m^3	324,471	516,820	708,827
Total water consumption from production	m^3	292,855	489,809	654,683
Wastewater discharge intensity from production	m^3/ 1,000 machine production hours	300.7[7]	273.3	444.9

SOCIAL

PERFORMANCE INDICATORS	UNITS	FY2020	FY2021	FY2022
Average training hours per staff	Hours	18.0	26.5	39.7
Training provided by Nanofilm College	Hours	39,479	84,156	101,941
Employees groupwide subject to regular performance appraisal [8]	Percentage	–	–	100
Female representation in workforce	Percentage	36	43	42
Total hiring rate for permanent employees	Percentage	–	–	34.3
Total turnover rate for permanent employees	Percentage	–	–	30.3
Rate of recordable work-related injuries (per one-million man hours)	Rate	1.89	2.14	1.64

RESPONSIBLE BUSINESS

PERFORMANCE INDICATORS	UNITS	FY2020	FY2021	FY2022
Human rights incidents in supply chain	Number	0	0	0
Sourcing from local suppliers	Percentage	49	72	60

6   The total water consumed refers to water consumed from our production sites and water from the workers' dormitories.
7   This was previously reported as water consumption intensity of 307.7m³/1,000 machine production hours in our SR 2020. This has now been restated as wastewater discharge intensity from production.
8   Metric was presented on a different basis for FY2020 and FY2021

SUSTAINABILITY
REPORT

GRI CONTENT INDEX

GRI STANDARD	DISCLOSURE		LOCATION
GRI 2: General Disclosures 2021	2-27	Compliance with laws and regulations	• SR: Responsible Business (Pg. 57)
GRI 204: Procurement practices 2016	204-1	Proportion of spending on local suppliers	• SR: Responsible Business (Pg. 58)
GRI 205: Anti-corruption 2016	205-3	Confirmed incidents of corruption and actions taken	• SR: Responsible Business (Pg. 57)
GRI 206: Anti-competitive behavior 2016	206-1	Legal actions for anti- competitive behavior, anti-trust, and monopoly practices	• SR: Responsible Business (Pg. 57)
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	• SR: Environment (Pg. 46)
	302-3	Energy intensity	• SR: Environment (Pg. 46)
GRI 303: Water and Effluents 2016	303-1	Interactions with water as a shared resource	• SR: Environment (Pg. 47)
	303-2	Management of water discharge related impacts	• SR: Environment (Pg. 47)
	303-3	Water withdrawal	• SR: Environment (Pg. 47-48)
	303-4	Water discharge	• SR: Environment (Pg. 47-48)
	303-5	Water consumption	• SR: Environment (Pg. 47)
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	• SR: Environment (Pg. 45)
	305-2	Energy indirect (Scope 2) GHG emissions	• SR: Environment (Pg. 45)
	305-4	GHG emissions intensity	• SR: Environment (Pg. 46)
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	• SR: Environment (Pg. 49)
	306-2	Management of significant waste-related impacts	• SR: Environment (Pg. 49)
	306-3	Waste generated	• SR: Environment (Pg. 49)
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	• SR: Responsible Business (Pg.58)

SUSTAINABILITY REPORT

GRI STANDARD	DISCLOSURE		LOCATION
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	• SR: Social (Pg. 54)
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	• SR: Social (Pg. 54)
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	• SR: Social (Pg. 55)
	403-2	Hazard identification, risk assessment, and incident investigation	• SR: Social (Pg. 55)
	403-3	Occupational health services	• SR: Social (Pg. 55)
	403-4	Worker participation, consultation, and communication on occupational health and safety	• SR: Social (Pg. 55)
	403-5	Worker training on occupational health and safety	• SR: Social (Pg. 55)
	403-6	Promotion of worker health	• SR: Social (Pg. 55)
	403-9	Work-related injuries	• SR: Social (Pg. 55)
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	• SR: Social (Pg. 51-52)
	404-2	Programmes for upgrading employee skills and transition assistance programs	• SR: Social (Pg. 51-52)
	404-3	Percentage of employees receiving regular performance and career development reviews	• SR: Social (Pg. 53)
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	• SR: Social (Pg. 53)
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	• SR: Social (Pg. 53)
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	• SR: Responsible Business (Pg. 58)
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	• SR: Responsible Business (Pg. 58)
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	• SR: Responsible Business (Pg. 58)
GRI 416: Customer Health and Safety 2016	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	• SR: Responsible Business (Pg. 59)
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	• SR: Responsible Business (Pg. 59)