



# A Better Tomorrow

2021 | Sustainable Development Report



## Delta Electronics (Thailand) PCL.

Symbol:	DELTA
Listed:	The Stock Exchange of Thailand
Industry:	Technology
Sector:	Electronic Components
Type of operation:	Manufacturing for export and technology solution provider.
Registered capital:	THB 1,259,000,000
Paid up capital:	THB 1,247,381,614
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SET  
AWARDS  
2020



THSI THAILAND  
SUSTAINABILITY  
INVESTMENT 2020



## Mission

To provide innovative, clean and energy-efficient solutions for better tomorrow

## Culture

Strive to change and pursue sustainability

### Innovation

Create new ideas and take them to success effectively.

### Quality

Consistently deliver superior performance and pursue improvement all the time.

### Agility

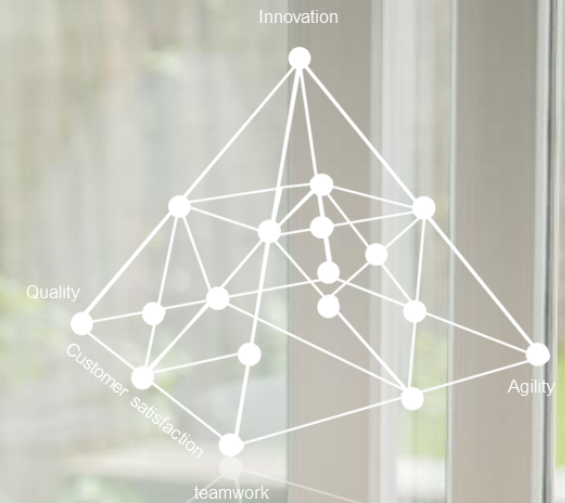
Identify emerging trends and act quickly to capture new opportunities.

### Teamwork

Fully leverage global value network and collaborate to achieve mutual goals

### Customer Satisfaction

Anticipate customer needs and exceed expectation



## Forewords

In the year 2020, sustainable development played an even greater role than ever for Delta and global society at large. Delta Thailand remained resilient in the face of global economic shocks stemming from the pandemic. This was largely due to our proactive strategy, mechanisms and measurable actions that address ESG challenges and hold each individual in our entire organization to the highest standard of ethics and integrity. For many years, we have put sustainability at the heart of our operations with Delta's Risk Committee including sustainability aspects in our risk assessment covering our organization's corporate governance, social and environmental aspects. Our prevention and contingency measures for ESG risk and uncertainty enable us to have an agile response to unexpected disruptions. This long-term commitment to sustainability in our mission and strategy allows Delta to always uncompromisingly deliver on our promise of, "Smarter. Greener. Together." to our stakeholders.

Delta always puts people first, and therefore we set a medium-term target of 0 fatalities from COVID-19 in our workplace until nationwide vaccinations are complete over the next 3-5 years. Short-term, Delta has a COVID-19 Taskforce that ensures the safety and wellbeing of all our workers and subcontractors' health without discrimination by taking preventive actions in accordance with the World Health Organization's recommended standards. The global lockdown negatively impacted national economic growth and both the wellbeing and livelihood of millions of people around the world. Delta Thailand addresses this serious issue by investing in our people's safety and health, which allows them to provide for their dependents and communities without compromising their health.

During this period, we hired approximately 4,000 subcontracted operators for our production operations from our local community to provide much-needed jobs. Meanwhile, employees in non-production roles can leverage our company's secure IT infrastructure and smart manufacturing solutions to facilitate their remote work. This help prevent the spread of infections in our company and in the country while reducing transportation emissions, energy usage at our plants and PM 2.5 air pollution in Thailand. Throughout the pandemic, our actions to address short



our medium-term priorities and continuously improve on sustainability to have had a positive impact on employee health and gained trust



from society. Putting people above short-term profit helps our people to do their best to fulfill our stakeholder's expectations during this challenging period and over the long term.

Our collaboration with suppliers, customers and freight agents helps us achieve success against a backdrop of trade barrier policies and political uncertainty or pandemic-related logistic disruption. Still, the risks of global container availability constraints and terminal concessions threaten to interrupt our inbound and outbound logistics operations. Yet by collaborating towards common goals, we aim to overcome such uncontrollable conditions. We initiate frequent discussions with our key partners that create shared value and a shift in our logistics model and network that taps into synergy to fulfill our planned raw material availability and order targets. Despite challenges, we take responsibility to maintain continuous online communication channels in our supply chain. In addition, we screen 100% of our new suppliers in accordance with the Responsible Business Alliance (RBA)'s ESG criteria. Meanwhile, Delta sponsors local startup projects with the aim of supporting the creation of local supply chains and an indigenous technology-driven industrial ecosystem to drive Thailand towards a smarter and greener future.

In the new normal context, global health concerns are broadening Delta's opportunities to meet the rising demand for breakthrough technologies. At the same time, we continue to prioritize our long-term vision and target to decrease greenhouse gas that [indirectly contributes to the emergence of new infectious diseases](#). Despite a state of global emergency and many other challenges, we continued to invest approximately 5% of our consolidated revenue in R&D. During pauses in physical business activities and operations, we have worked to improve our workplace environment and introduce technology to mitigate negative environmental impact. Our strong

focus on sustainable operations has helped us upgrade our processes to facilitate high-efficiency product manufacturing with a lower carbon footprint. After Delta Thailand surpassed 34% of GHG scope 2 target, we will set another 30% GHG reduction target that we plan to achieve by 2025.

By harnessing the power of collaboration, Delta has successfully taken on new normal opportunities in 2020, including data center power and digital infrastructure solutions as well as EV charging solutions to meet the pandemic-fueled boom in e-commerce, remote work and green transportation. This resulted in the highest revenue for our company since our inauguration in 1990. Our success also highlights the importance of sustainability to our partners as we leverage multiple platforms to share impactful ways for companies to utilize their domain expertise to contribute to Thai society and our environment. Sharing the benefits of our sustainable growth brings us closer than ever to our partners and garners widespread support from a broad cross-section of the global community and Thai society. We would like to thank the following organizations for their recognitions:

1. S&P Global for the Silver Class Award in the 2020 Sustainability Yearbook. Delta Thailand is proud to be the only Thai company in the yearbook's "ITC Electronic Equipment, Instruments & Components" sector.
2. The Stock Exchange of Thailand for the THSI Award 2020.
3. The London Stock Exchange Group (LSEG), FTSE Russell for inclusion into the FTSE4Good Emerging Index.
4. The ASEAN Centre for Energy (ACE) for ASEAN Energy Awards 2020, in the Large Industry-Energy Management.
5. Thaipat Institute for the "Excellent" class of Corporate Health Check Report on COVID-19 and ESG 100.

6. The Thai Private Sector Collective Action against Corruption (CAC) for Certifies in the Collective Action against Corruption
7. The World HRD Congress for Excellence in Training at the Thailand Best Employer Brand Awards.
8. The Global Child Forum and Boston Consulting Group for the "Leader" Rank in the Global Child Forum 2020 Southeast Asia Benchmark

In addition to the above, we would like to thank all the government and private organizations who assessed and gave recognitions to Delta Thailand in 2020.

Finally, I would like to personally thank everyone at Delta who does their best each day to help keep everyone safe and healthy as we overcome every challenge together. Your daily actions to protect your teammates and satisfy our customers when developing, producing and implementing each Delta product and solution gives our stakeholders far-reaching benefits. Your commitment to excellence and continuous improvement is key to Delta's successful sustainable growth strategy and positions our organization as a sustainability leader in Thailand.

Yours sincerely,



Jackie Chang  
President

and Chairman of Sustainable Development Committee  
Delta Electronics (Thailand) PCL.





Part 1

# THIS IS DELTA

2020 ESG Performance

An overview on Delta's milestones, products, operation sites, value chain, commitment, risk, and our goals.



# Overview

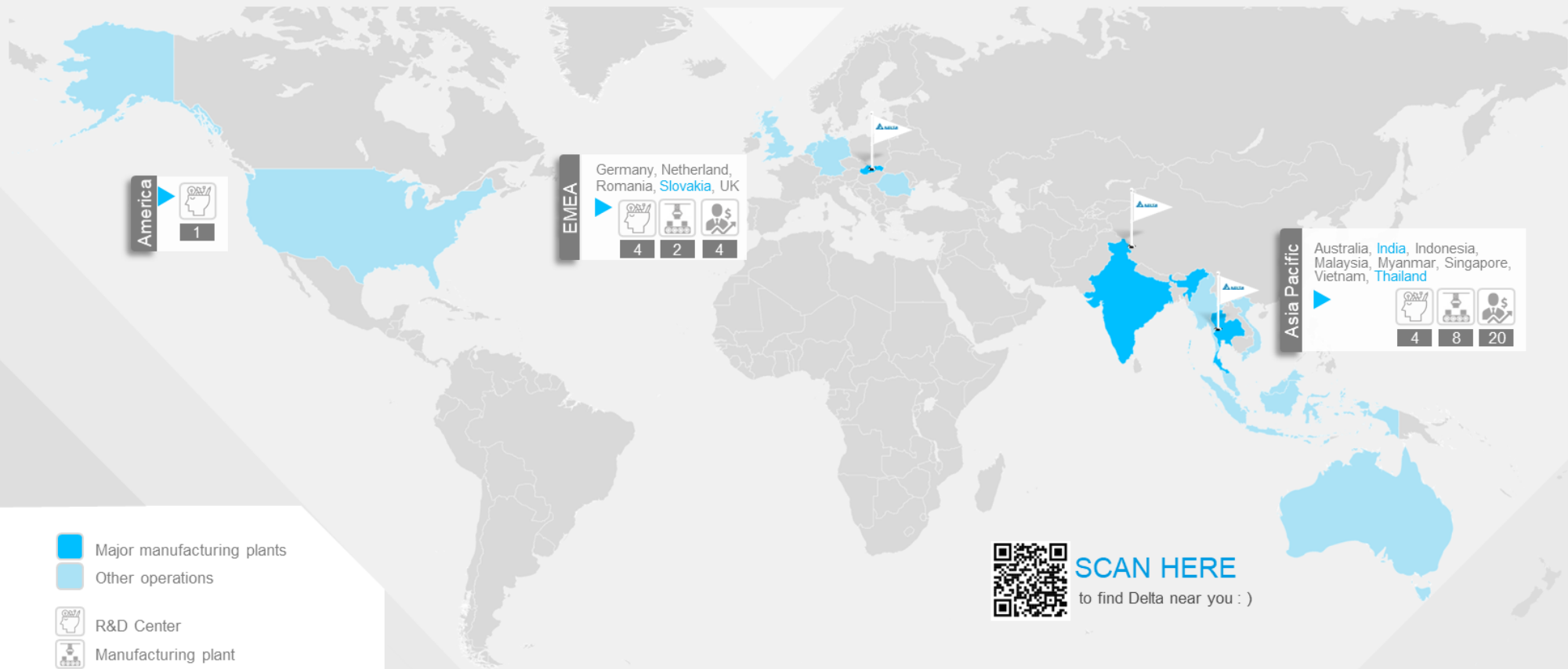
<p>1988</p>  <p>Established Delta Electronics Thailand</p>	<p>1995</p> <p>Converted to public company and listed in the Stock Exchange of Thailand as "DELTA"</p>	<p>2003</p> <ul style="list-style-type: none"> <li>Acquired ASCOM Energy System AG.</li> <li>Started operation in India</li> </ul>	<p>Received BOI privileges for Skill technology and innovation investment</p> <p>2004</p>
<p>2007</p> <p>Established manufacturing plant in Slovakia</p> 	<p>2008</p> <ul style="list-style-type: none"> <li>Started automotive business</li> <li>First LEED certified factory in India</li> </ul>	<p>2009</p> <p>Highly automated automotive part manufacturing plant in full operation</p> 	<p>2011</p> <ul style="list-style-type: none"> <li>Achieved ISO14064-1 standard</li> <li>Achieved ISO5001 Standard</li> </ul>
<p>2012</p> <p>Started solar energy business First wind turbine inverter installed in Europe</p> 	<p>2013</p> <p>Started industrial solution businesses in South East Asia</p> 	<p>2015</p> <ul style="list-style-type: none"> <li>Greenhouse gas inventory reporting to CDP</li> <li>1st public disclosure of non-financial performance</li> <li>Listed in ThaiPat's ESG100 for the first time</li> </ul>	<p>2017</p> <ul style="list-style-type: none"> <li>Merge Delta Power Solutions India with Delta Electronics India</li> <li>Establish R&amp;D Center in USA.</li> <li>LEED certified at Thailand HQ</li> </ul> 
<p>2018</p> <ul style="list-style-type: none"> <li>Recorded high reported revenue of THB 53.1 Billion</li> <li>Expand R&amp;D center in India</li> </ul>	<p>2019</p> <ul style="list-style-type: none"> <li>Implement ISO27001</li> <li>Implement 3.2MWp Solar Rooftop at Thailand HQ</li> <li>Received official tender-offer From Delta Electronics Int'l (Singapore) Pte. Ltd</li> <li>Included in the RobecoSAM Sustainability Yearbook with Silver-class award</li> </ul>	<p>2020</p> <ul style="list-style-type: none"> <li>Certified member of Thai CAC</li> <li>Recorded high reported revenue of <b>THB 63.2 Billion</b></li> <li>Implement ISO45001 among Delta Thailand Group</li> <li>Establishment of COVID-19 Taskforce</li> <li>Listed in MSCI Global Standard Indexes</li> <li>Delta Receives Leader Rank in Global Child Forum 2020 Southeast Asia Benchmark</li> <li>M&amp;A Eltek Australia</li> </ul>	

Delta Electronics (Thailand) Public Company Limited ("Delta" or "Delta Thailand" in the following content) is a manufacturer and exporter of power supply, electronics equipment and parts. The company was inaugurated on June 16, 1988, with THB 40 million in initial capital and converted to a public limited company on September 23, 1994, and listed on the Stock Exchange of Thailand on July 24, 1995, under the symbol of "DELTA". As of December 31, 2020, the company has THB 1,259,000 in registered capital with THB 1,247,381,614 in paid-up capital at THB 1 par value per share.

Delta is one of the world's leading producers of power supplies and electronic components that include cooling fans, EMI filters and solenoids. Our businesses are now mainly involved in power management solutions. Our current power management product line covers various types of power supplies including power systems for information technology, telecommunications, industrial applications, office automation and medical industries; and power supplies for servers, networking and DC-DC converters and adapters. Delta slightly transform its role to power management and automation solutions provider.

At present, the company has 2 main plants in Thailand, our headquarters in Bangpoo Industrial Estate, Samutprakarn and another plant in Wellgrow Industrial Estate, Chachoengsao. Our overseas plants are in India (Rudrapur, Gurgaon and Hosur), Slovakia (Dubnica nad Váhom and Liptovsky Hradok).





- Major manufacturing plants
- Other operations
- R&D Center
- Manufacturing plant
- Sales & services office



**SCAN HERE**  
to find Delta near you : )

\* In 2019, Delta start its operation in 3 new factories in Krishnagiri, India; Yangon, Myanmar and Samutprakan, Thailand to supply core components and mechanical parts to its factories in South-east Asia regions. After 5 year (by 2024) of introduction stage, these 3 factories should be material to our supply chain and creating positive impact on our profitability, cost management and environmental footprint control.

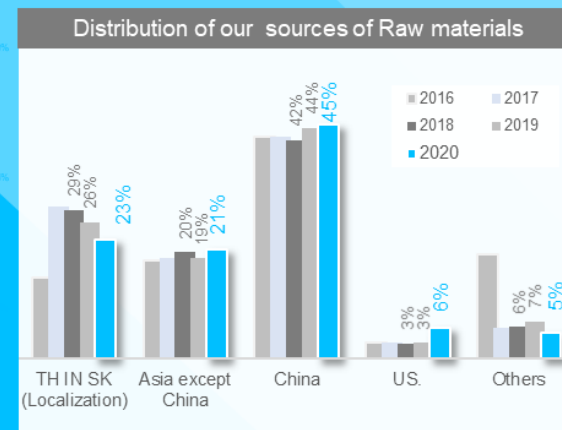
## Global operations



- APAC 89%
- Europe 11%



Delta has been using SAP ECC6 to facilitate and enhance its linkages with customers and suppliers all over the world.







Since 2014, Delta is undergoing a gradual but successful business model transition from being mainly an ODM supplier to a key solutions provider in Southeast Asia and Australia regions. As a result, the retention of top 20 ODM customers who are still the main revenue contributors have maintained consistently above 80% for three years in row.

In 2019 Delta Electronics (Thailand) PCL. received Conditional Voluntary tender offer (CVTO) from Delta Electronics Int'l (Singapore) Pte. Ltd. at the offer price of THB 71 per share. The CTVO implementation has not made any major change to the Delta Thailand's organization size, capital structure, ownership, operation and supply chain in the reporting period. However, in 2020, the COVID-19 pandemic and raw material shortage due to climate change slightly disrupted Delta's target to increase material localization.

On 24 July 2020, a meeting of the Company's Board of Directors passed a resolution approving a subsidiary of the Company, Delta Greentech (Netherlands) B.V., entering into an agreement to sell 49 percent interests in Delta Electronics (Switzerland) AG and Delta Greentech Electronics Industry LLC to related companies. On 28 September 2020, the subsidiary received payment for the sale of these investments in associated companies, amounting to approximately USD 14.44 million or approximately Baht 457 million, and agreed to transfer those shares to the buyers on 1 October 2020. A loss on the sale of these investments under the equity method, amounting to approximately USD 3 million or approximately Baht 95 million, was recorded in the consolidated statement of comprehensive income. In addition, detail of Subsidiaries directly owned by the Company and Subsidiaries indirectly owned by the Company during the reporting period has publicly disclosed in our recent [Annual Report](#) page 16-165 as

the notes to financial statement number 13.4 and 14.2 respectively.

Our worldwide network of sales and technical support teams are located in Asia, USA and Europe. These teams are backed by centrally located design-engineering centers that diagnose problems during the design and production stages. This can be demonstrated by Delta Thailand's latest investment structure disclosed in our [Annual Report](#) page 10 To keep our stakeholders informed, Delta Thailand's major shareholders has publicly disclosed at <https://tinyurl.com/yx97a23h>.

As a strategic partner to the world's technology leaders, Delta has made firm commitment to provide leading-edge product/system solutions at a reasonable cost, less environmental footprint and with the highest quality.



# Powering green innovations

From its expertise in designing and creating high-efficiency power supply, Delta leverages our market leading power supply technology to create greener product and solutions that enhance quality, reliability, customer satisfaction and necessary ESG actions for our stakeholders. Since 2010, the company realized its potential to relief global climate change with smarter and greener solutions. Consequently, Delta gradually phased in to solution business since 2015 with healthy growth in EV, green and energy-efficient solutions which are potential opportunity implied from the company's awareness of Climate Change impact to broad society.

## What is power Supply?

The purpose of a power supply is to supply electric power for a device that we use. There are many varieties of devices and power supply types. Some types are the Linear Power Supply, i.e. Transformer, Non-Linear Power Supply and Switching Power Supply. In short, power supply is a device that supplies electricity to various electrical devices and converts AC voltage to DC voltage to meet the needs of various electrical equipment for DC voltage (voltage goes to the device's capacitors or internal components)

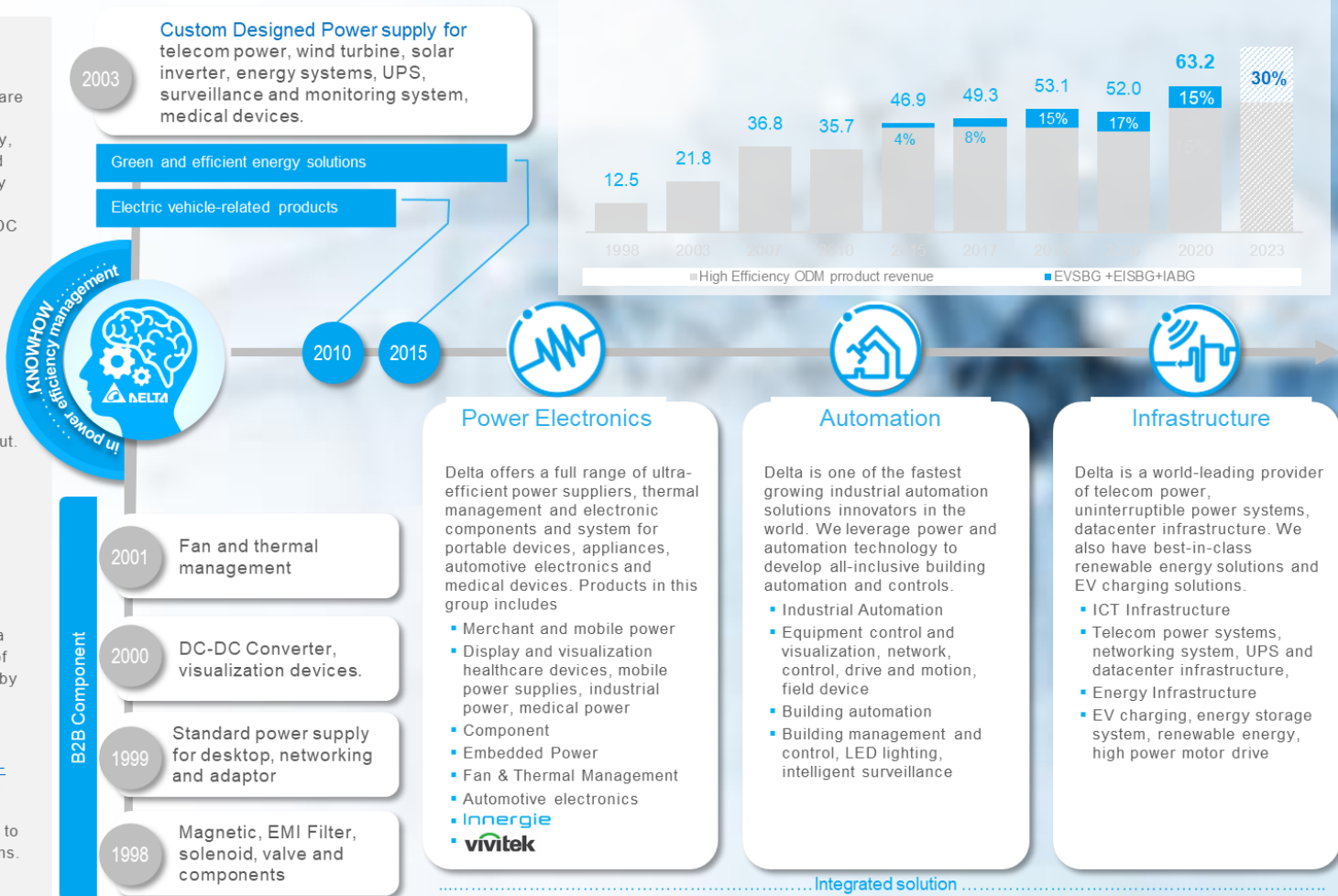
## Why Switching Power Supply?

The main advantages of Switching Power Supply or Switching Mode Power Supply (SMPS) are high efficiency of 80-100%, which means the input is almost as much as the output. It is light, compact, which can be installed in a variety of devices.

## Why Delta?

At Delta, we commit ourselves to the advancement of power and electronics technology to provide "smarter" products and solutions with high efficiency. It help us make a "greener" and more environment friendly way of life possible. We collaborate with our partners by listening to their needs and accomplishing our mission "together".

Visit <https://deltathailand.com/en/products-and-solutions> to learn more about our products and solutions. or drop your queries to our sales managers at [products\\_info@deltathailand.com](mailto:products_info@deltathailand.com) to get more information on our products & solutions.





# The Brand

Delta's brand emphasizes innovation and energy conservation and combines robust business development with comprehensive corporate social responsibility. The company seizes on the latest global trends of today's fast changing industrial landscape and climate change issues by creating ultra-efficient and reliable energy-saving solutions for environmental protection, energy conservation and value-add.

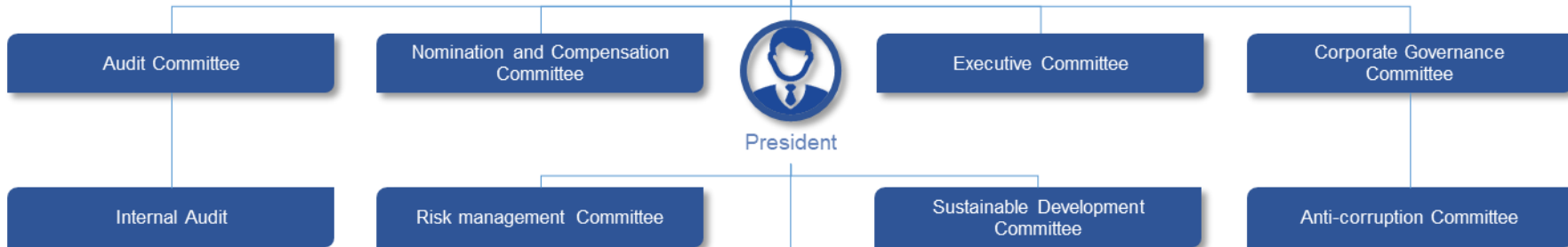
"To provide innovative, clean and energy-efficient solutions for a better tomorrow." is both our corporate mission and our commitment to environmental protection. Delta commits to its brand promise of "Smarter. Greener. Together." in our core value and product development inspiration. Our brand not only embodies what we demand of ourselves, but also is a commitment to our investors, customers, and employees alike. Our strong belief in Delta's brand drives the synergy of leading technology and business partner cooperation in our ongoing creation of ultra-efficient and reliable products and services including power and component products, industrial automation, energy management systems and consumer electronics products that support a smart and environment-friendly future.

Delta partners with our subsidiaries and business associates to increase Delta's global brand value and recognition through Delta brand products and solutions. In B2C scope, Delta Thailand and its subsidiaries have acquired world leading brand of electronics component, visualization, consumer electronics and IOT technology-related brands to enhance continuous growth to Delta's brand from 2016-2019. These merger and acquisitions not only help Delta to strengthen its brand image and market presence; but also another way to strengthen our value chain of innovation among Delta group. Up to the reporting period, there was of non-compliance with regulations and/or voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship. Delta Thailand's corporate brand value has recognized by Chulalongkorn University's Thailand Top Corporate Brand Award, Hall of Fame for its brand valued over THB 50 billion for 5 years in row.





Board of directors



Chief Operation Officer





# Our Structure

In spite of global presence and wide range of products, solutions and businesses, Delta set up simple organization for delegating authority for economic, environmental, and social topics. Through flat reporting lines policy, strategic target and directions from the highest governance body has communicated to senior executives and other employees with various approaches.

Though all Delta's executive-level position has responsible for economic, environmental, and social topics up to their functions, Sustainable Development (SD) Office had founded to connect smarter and greener values chain among related functions and its subsidiaries across the globe. This significant development demonstrate the company strong passion to boost up its performance in sustainable development matters.

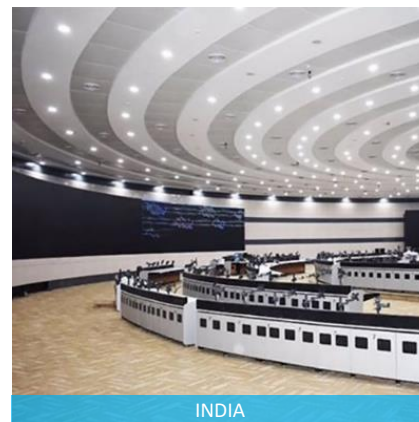
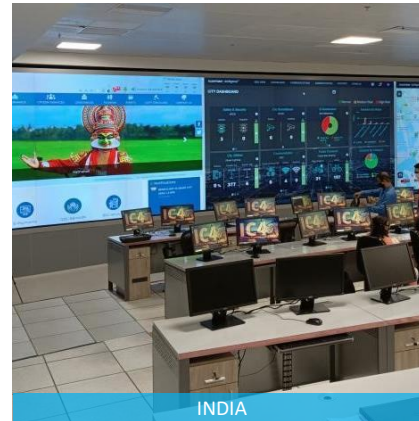
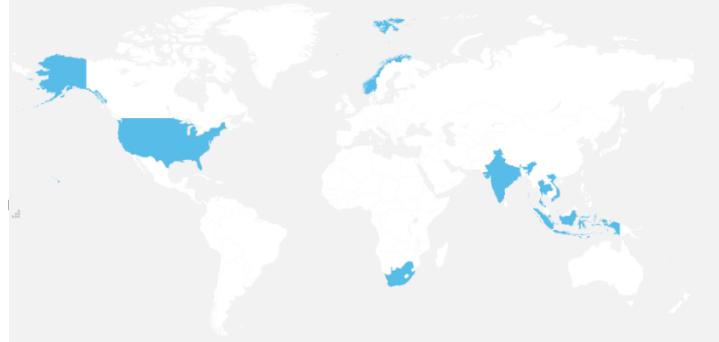
Due to the rising concern of individual privacy and information security in the digital economy era, in 2019, Information Security Management Committee meeting resolve to invite its legal manager to acting for Data Protection Officer (DPO). The DPO is responsible for collaborate with data-related function, IT and HRD; for instance, to conducting data protection impact assessments, monitoring the organization's compliance with relevant data privacy rules including monitor data privacy risks arising in our organization's activities. Due to the assigned person/s' independency, the acting DPO will be Delta's reliable point of contact for data subjects and supervisory authorities.



# Success Stories

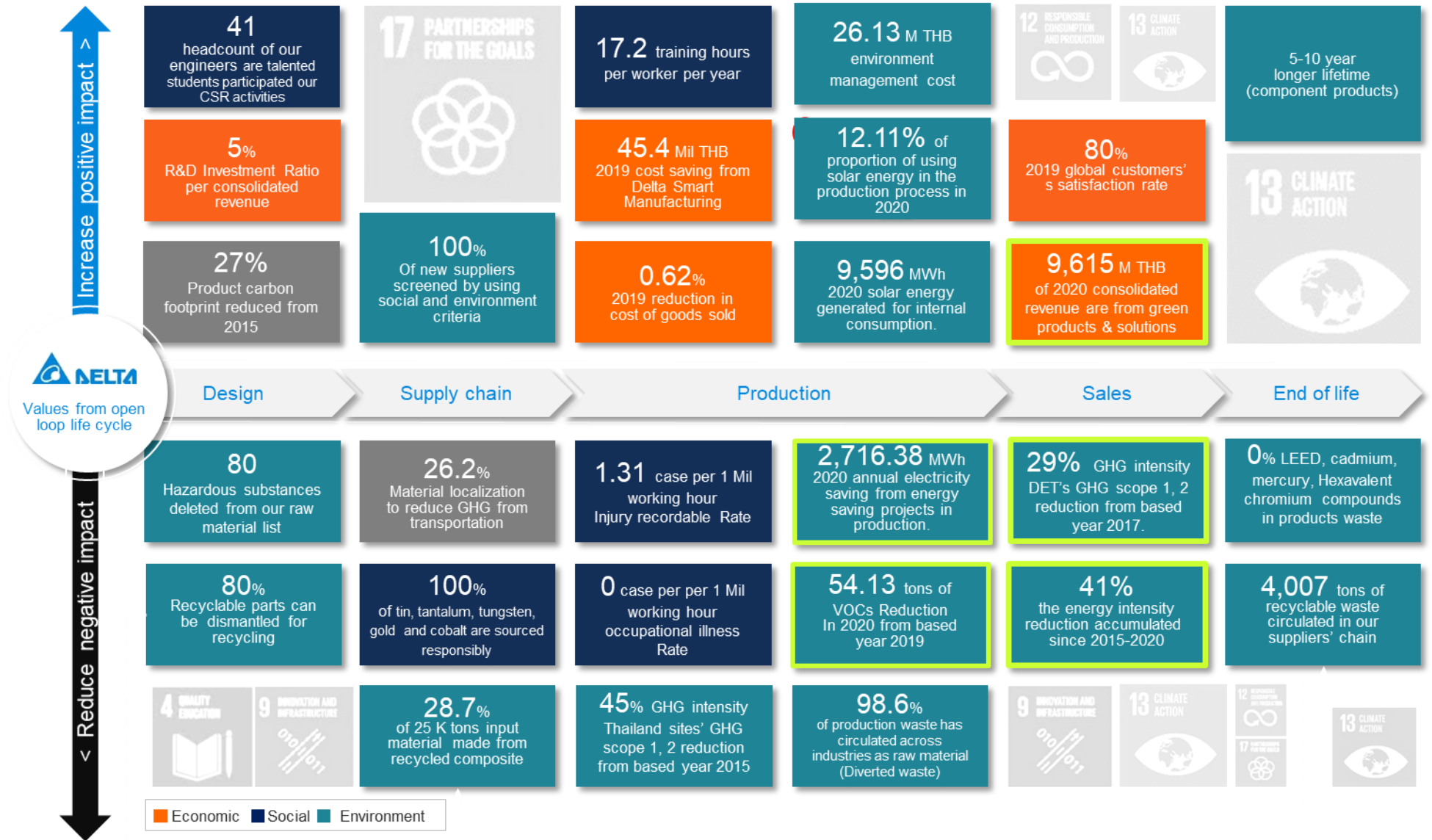
In the ever-emerging complexity of the Industry 4.0 era, customers around the world are seeking Delta products and solutions to maximize energy efficiency, drive growth and boost competitiveness. Our growing project portfolio is a testament to our successes in a wide range of areas including industrial automation, datacenters, green buildings, smart factories, telecom power, monitoring and displays, EV charging and renewable energy.

Delta teams leverage global R&D and manufacturing synergies in our relentless push to deliver the most add value to our customers. Our core competencies in energy management and power electronics power Delta innovation, providing the impetus for our ongoing journey “to provide innovative, clean and energy-efficient solutions for a better tomorrow”.





# Sustainability Management





## The matters

Through daily business process, feedback from related public disclosure, various communication channels, trade events and partnership with leading institute; our stakeholders' voices help us realized the material issues in extended view.

Delta Thailand has adopted AA1000SES 2018 principle to communicate with both direct stakeholders who have a visible role in the organization, regulation, e.g. operational personnels, communities and entities that influenced or be impacted by it the services; and indirect stakeholders who are interested and echo their needs in Delta's performance through various approaches.

The stakeholders' expectation identified with systematic materiality analysis, so that we can take the necessary responsive action and enrich the content of our information disclosures. Furthermore, any stakeholder's highlights raised in "Other important area" portion of the on-line questionnaire had reported to the management and Sustainability Development Committee to seek for any further action as well.

### Step 1: Design the material analysis

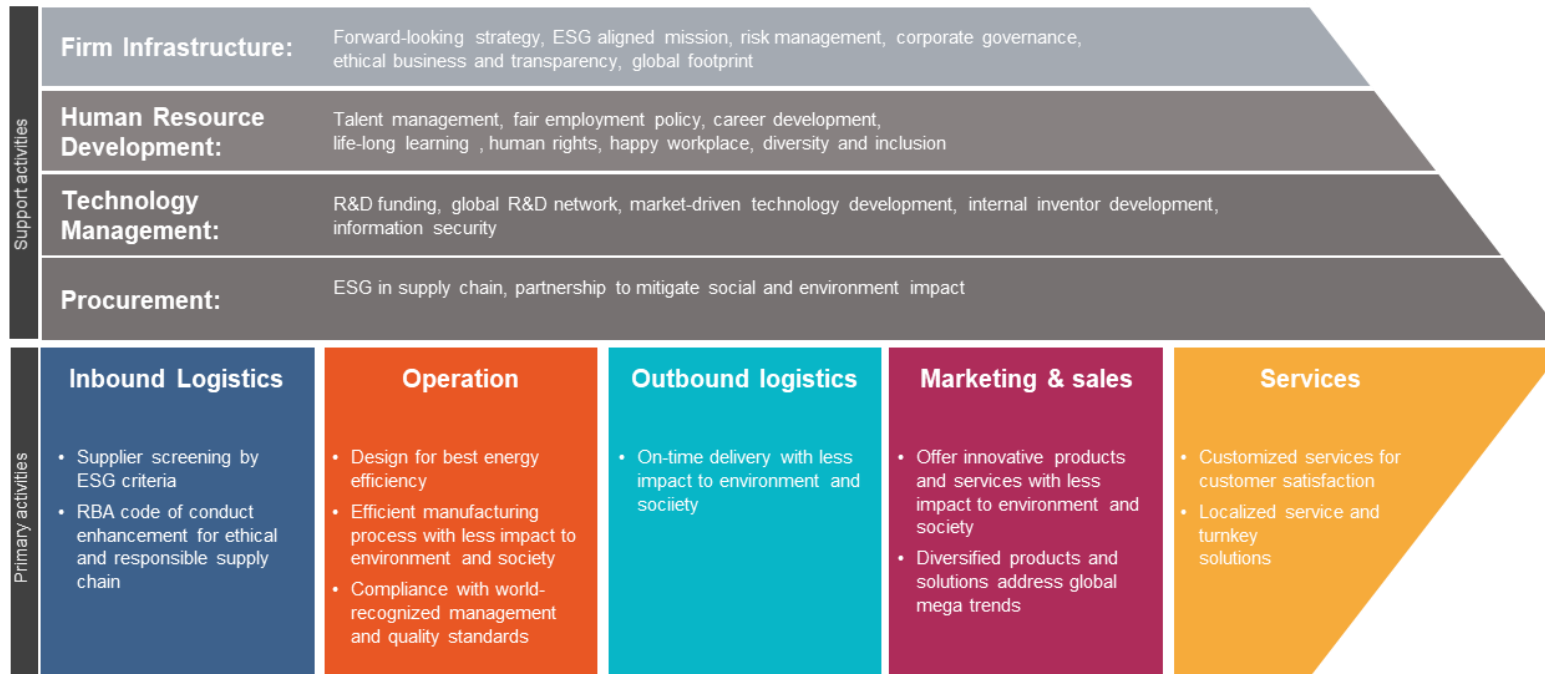
The company's report boundaries to cover the Company's operations in Thailand which include its factories in Bangpoo Industrial Estate, Samutprakarn and factory in Wellgrow Industrial Estate, Chachoengsao and our manufacturing factories in India and Slovakia. Our sites in these countries cover 100% of our manufacturing process that contribute to 98% of the Company's consolidated financial performance.

### Step 2: Value chain analysis

To ensure our capability to response to **provide innovative, clean and energy-efficient solutions for better tomorrow,**







We analyze our business activities to see our potential and gap to deliver the promise value to our stakeholders while balance the company's competitive advantage.

Delta also consider its adhered risks, the World Economic Forum's [The Global Risk Report](#) and emerging issues to realize potential long-term impact of these risks to our business context and related stakeholders. In 2020, 12 emerging risk in business process happened in the 2nd half of 2020 had reported to the Board of Directors. Meanwhile, Risk management committee and related working team keep focusing on related environment risk accordingly to the [Nations IPCC's forecast](#) that average global warming of 0.2°C is expected for each of the next two decades. A total of 25 climate topics were collected in 2017 through the aforementioned procedures. After ranking the comprehensive risks and upon internal confirmation, a total of 11 major risks have been identified. These risks encompass policy and legal risks, technology risks, market risks, and physical risks as following:



# Environment Risk

## Major:

- Increment of emission offset cost
- Fuel/energy tax or relevant legal regulations
- Voluntary regulations
- Standard environmental regulations (including those being planned)
- Regulation of renewable energy
- Products/services replaced by low-carbon technology
- Costs for transition to a low-carbon economy
- Uncertainty of market information
- Increase in raw material expenses
- Changes in rainfall, severe changes in weather type
- Rise in average temperatures

## Others:

- Higher requirement of emissions reporting reliability
- Compulsory legal regulations for products and services
- Litigations
- Higher requirement of international industry standards
- Constraints on air pollution
- Uncertainty of new legal regulations
- Lack of regulations
- Failure of investment in new technology
- Changes in consumer behavior
- Changes in consumer preferences
- Industry stigmatization
- Increases in stakeholders' concerns and negative feedback
- Increases in severity of extreme weather incidents
- Rise in average sea level

### Step 3: Identification of initial list

List sustainable development issues related to Delta Thailand's sustainable development in ESG aspects according to GRI Standard, Dow Jones Sustainability Index Assessment for ITC Sector, SET Sustainability Awards, Responsible Business Alliance (formerly EICC) Code of Conduct and the Securities and the Exchange Commission of Thailand's Corporate Governance. We implemented Media stakeholder analysis (MSA) to benchmark our list of material issues with peers, our customers and competitors in the same industry. In 2020, due to the air pollution, COVID-

19 emergence, global policy changes to response to the pandemic and the rise of virtual currency; there are 30 major issues for investigation included in the company's questionnaire. These 30 issues had used to sum up the frequency of our stakeholders' contact during the reporting period.

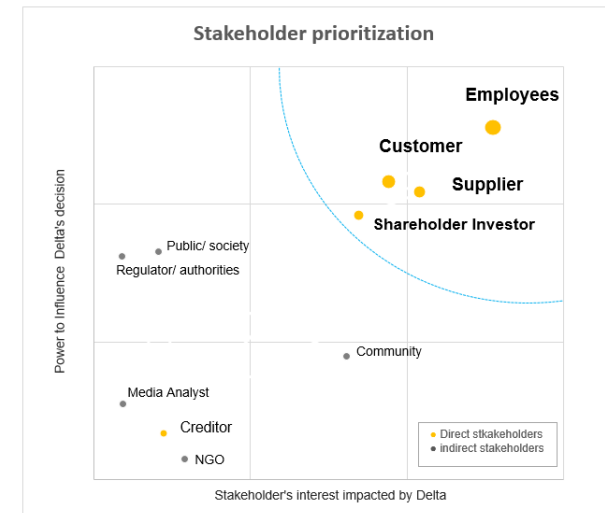


### Step 4: Execute the material analysis Communication with stakeholders

Delta Thailand has adopted ISO 26000 and AA1000SES 2018 principle to communicate with both direct stakeholders who have a visible role in the organization, regulation, operation people, communities and entities that use the service or are impacted by it; and indirect stakeholders interested in Delta's performance.

Since 2019, Delta established [Stakeholder engagement guideline](#) to systemize its consultation process with its stakeholders on economic, environmental and social topics.

The consultation is delegated to related departments/functions eg. HRA, Volunteer working team, Employee relation team and Corporate governance Committee, to get their stakeholder feedback and reported to Sustainable Development committee meeting at least once a year. Finally the result of Sustainable development response to their stakeholders' expectation will be summarized and reported to the Board of Director at least once a year.



After the stakeholders prioritization process, their material expectations will be identified with systematic materiality analysis, so that we can take the necessary responsive action and enrich the content of our information disclosures. Furthermore, any stakeholder's highlights raised in "Other important area" portion of the on-line questionnaire had reported to the management and Sustainability Development Committee to seek for any further action as well.





Item	Raised issues	Stakeholder Relevance								Approaches	Stakeholder's Interest/ Concern (Y)								Possibility of issues	Impact to DET	Impact description	Delta's Opportunity / Response			
		Employees	Customers	Suppliers	Shareholder/ nve	Creditor	Media/ Analyst	Community	Regulators/ Auth		NGO	Public/ Society	Economic perfor	Enviroment & Integritv	Innovation	Supply chain management	Eco Operation	Employment					IT Security	OHSAS	Social Contribution
1	Job availability for local workforces	▲					▲	▲	▲	▲	▲											5	3	+ Sufficient workforce for ramp up demand + Higher opportunity to get workforce to ready to digital transformation. + Career development of existing operators - Subcontractor's call for equal career development to Delta operator	<ul style="list-style-type: none"> <li>Open for subcontractor application for short -time order ramp up</li> <li>Availability of quality and loyal worker from internal recruitment.</li> <li>Design more variety career development courses</li> </ul>
2	Fast-moving stock price	▲		▲	▲		▲	▲	▲	▲		▲	▲									5	5	+ More opportunity to get new business partner ? Recognition in broad society	<ul style="list-style-type: none"> <li>Official declaration to SET/SEC that the company never involve the price driving</li> <li>Respect to SET/SEC requirement to declare the directors and keymen's shareholding</li> </ul>
3	Compensation and benefit for subcontract worker	▲					▲					▲			▲		▲					5	5	+ Sufficient workforce for ramp up demand - Subcontractor's call for equal career development to Delta operator	<ul style="list-style-type: none"> <li>Establish Employee Relation unit to help all type or worker to understand their rights.</li> <li>Track subcontract worker's performance to plan their career path development.</li> </ul>
4	Collaboration for CSR projects		▲					▲	▲	▲			▲	▲					▲			5	5	+ More opportunity for experience-based training for each project representative team. + More partner for further project, process and product development. + Social license to operate. + Higher opportunity to disseminate advance technology knowledges. ? More frequent engagement by external parties.	<ul style="list-style-type: none"> <li>Develop soft skill and cross-field training courses to strengten worker's competence as well as career part development.</li> <li>Develop worker compensation and welfare base on their service/ learning hours.</li> </ul>
5	ESG standards implementation	▲	▲	▲	▲		▲	▲	▲	▲		▲	▲	▲	▲	▲	▲	▲	▲			2	5	+ More opportunity to learn stakeholder requirement. + More opportunity to foresee possible risk + Higher brand value and recognition as fundamental of business growth. + Higher opportunity to disseminate advance technology knowledges. ? More frequent engagement by external parties.	<ul style="list-style-type: none"> <li>Higher average training hours against lower training cost through regulator training.</li> <li>Validation of specilaists pools to response to ESG needs required for future growth.</li> </ul>
6	Labor practice against ramp up demand of tech goods	▲	▲	▲			▲	▲				▲	▲	▲	▲		▲	▲				5	5	+ Business growth in spite of economic decline during lockdown period. + Worker's loyalty when everyone can get through this situation without fatality. - Workprocess hiccup due to WFH trail. - Higher investment in cost of health and safety.	<ul style="list-style-type: none"> <li>Employee loyalty</li> <li>Higher efficiency of employees</li> <li>Smoother operation with less conflict with labor unions.</li> </ul>



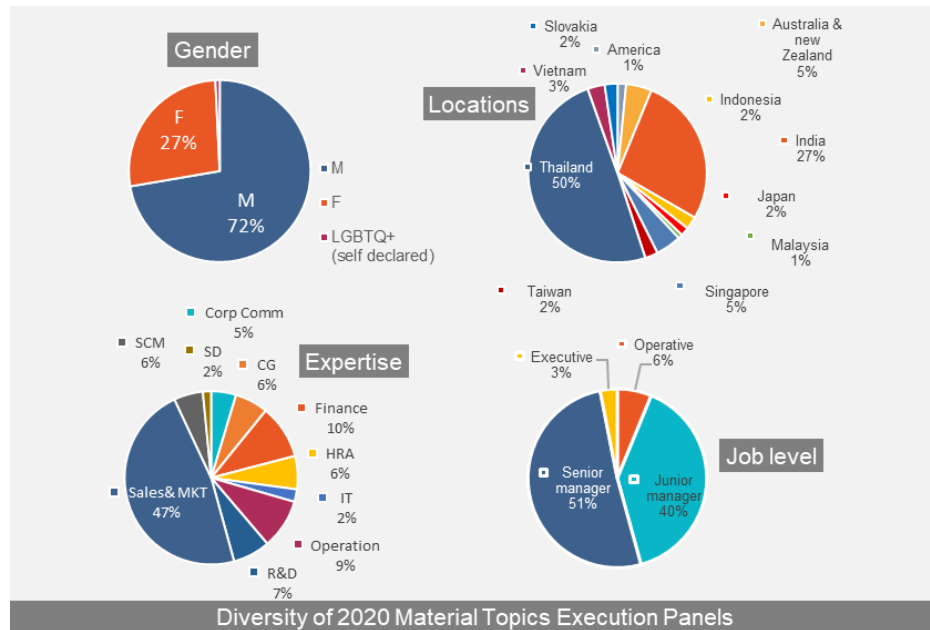
Item	Raised issues	Stakeholder Relevance									Approaches	Stakeholder's Interest/ Concern (Y)									Possibility of issues	Impact to DET	Impact description	Delta's Opportunity / Response		
		Employees	Customers	Suppliers	Shareholder/ nve	Creditor	Media/ Analyst	Community	Regulators/ Auth	NGO		Public/ Society	Economic perfor	IT & security	Innovation	Supply chain management	Eco-Operation	Employment	IT Security	OHSAS					Social Contribution	
7	Job security and decent income against global lock down and quarantine period	▲									▲	▲											5	5	+ Worker's loyalty + Sufficient and skilled workforce for business growth. + Recognition of local community and public - Higher exchange rate risk	• Employee loyalty • Higher efficiency of employees • Smoother operation with less conflict with labor unions.
8	Consideration of payment by crypto currency		▲																				3	3	- Higher exchange rate risk	• Opportunity to learn more about fin tech and crypto currency.
9	Human rights in business process		▲	▲	▲						▲	▲											1	5	+ Business growth in spite of economic decline during lockdown period. + Worker's loyalty when everyone can get through this situation without fatality. - Higher investment in worker's health and safety.	• Employee loyalty • Higher efficiency of employees • Smoother operation with less conflict with labor unions.
10	Safety & health practice during COVID-19 pandemic	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	5	5	+ Business growth in spite of economic decline during lockdown period. + Worker's loyalty when everyone can get through this situation without fatality. - Workprocess hiccup due to WFH trail. - Higher investment in cost of health and safety. - Personal privacy impacted by COVID-19 communication.	• Full trial of emergency preparedness plan for further development. • Fasten digital transformation among daily processes. • Fast development of work environment in accordance of world-recognize standard. • Fasten worker utilization of company's communication channels.
11	Order fulfillment among global material shortage and pandemic crisis	▲	▲	▲	▲																		5	5	+ Business growth in spite of economic decline during lockdown period. + Worker's loyalty when everyone can get through this situation without fatality. - Work process hiccup due to global lockdown and WFH trial - Higher freight cost impacting operation cost and profit margin. - Higher freight cost impacting operation cost and profit margin.	• Full trial of emergency preparedness plan for further development. • Strengthen collaboration among supply chain. • Additional pools of high-competence freights and forwarders. • Synergize DET and its front offices's network for further collaboration. • Reduction of customer complaints on long lead-time as B2B provider.
12	Information security during lockdown (WFH) period	▲	▲	▲	▲	▲	▲																5	5	+ Business growth in spite of economic decline during lockdown period. + Maintain company competence and trade secret. + Smoother work process and relationship among related network	• Develop worker's literacy in IT security. • Full trial of IT security-related tools.
13	Ability to operate during the unstable political situation	▲	▲	▲	▲																		5	5	+ Business growth in spite of economic decline during lockdown period. + Maintain company competence and trade secret. + Smoother work process and relationship among related network	• Full trial of emergency preparedness plan for further development. • Strengthen collaboration among supply chain.
14	Investment of renewable energy slow down due to COVID-19 disruption		▲																				5	3	+ Continuity of GHG reduction effort - Insufficient manpower due to COVID-19 prevention measurement.	• Maintain leading environmental performance in spite of the pandemic situation. • Lower operation cost against order ramp up





Delta prioritizes the each material aspect by using Simple Correlation Test to validate the level of significance of each aspects to the Company's key performances. Discuss the result and detail of stakeholders' score and related suggestion with the Sustainable Development Committee to assess the impact of each issue to Delta Thailand's performance.

In 2020, we engaged 129 managers at front sales and services offices to execute our 2020 material topics. Before the execution, recent ESG kpis and activities have shared among the meeting. This is to ensure that our material topic meet GRI's principle of Stakeholder Inclusiveness, Sustainability Context, Materiality and Completeness in spite of massive unpredictable issues and uncertainty disrupted by the COVID-19 pandemic in different locations. By this process, our material topics have executed carefully by representatives of these operation sites with variety of business context, cultures, countries' policies, expertise and emergency issues they were facing daily. The of the execution panel's diversity can be demonstrated as following:

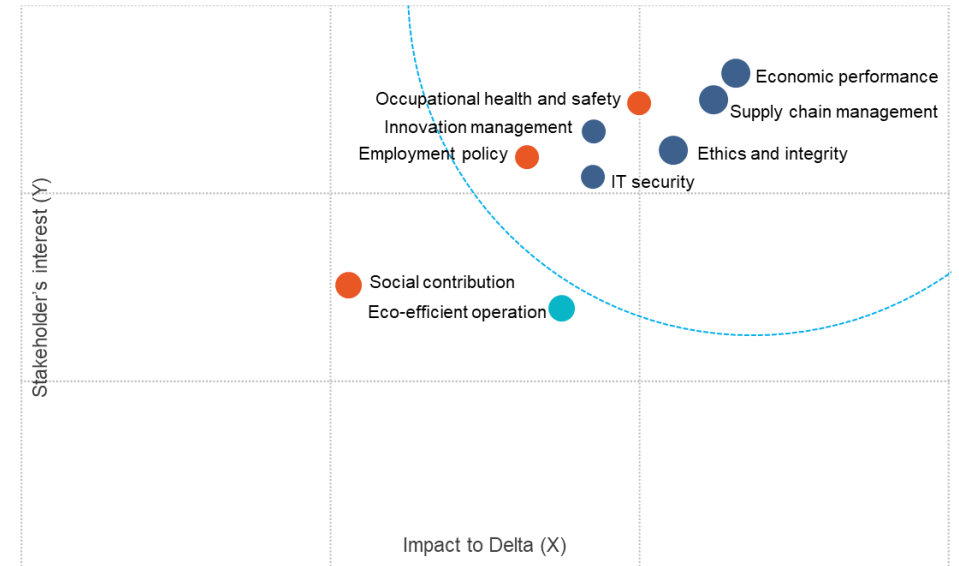


**Step 5: Material issue validation**

The result of materiality prioritization indicates that 8 from 14 issues have been expected and interested by the Company's stakeholders with relevance to our business goal. Due to the COVID-19 disruption in 2020, stakeholder's interest and concern of eco-efficient operation had declined.

However, the Execution panels meeting agreed that our responsibility to natural resources conservation is the most significant issue to maintain the company's competences, raw material for production and social license to operate; this issue has added as Delta's materiality. Finally, the 9 material issues had disclosed in this report in detail.

2020 Sustainable Development key performance had reported to the Board of Director meeting dated 18 Feb 2021.



Material issues	Disclosure page
Economic performance	27,31
Ethics, integrity, Code of Conduct	35
Innovation Management	40-47,56-57, 63-68, 77-79
Supply chain management	48-57
Eco-friendly operation	38-80
Employment policy	82-110
IT Security	68
Occupational health and Safety	97-105
Social Contribution	111-120





“Enable added values for the stakeholders through smarter and greener business”

## Our commitment

Delta Electronics (Thailand) Public Company Limited is committed to conducting business according to the company's Corporate Social Responsibility Commitment. The commitment shall provide guidelines for the directors, management and employees to operate our business ethically with transparency, accountability, and respect for human rights and fair treatment to all stakeholders including our employees, shareholders, customers, suppliers and the communities.

As a global corporate citizen, we support international standards such as the Responsible Business Alliance (RBA), the Universal Declaration of Human Rights, the International Labor Office Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy and Global Reporting Initiative (GRI). We are committed to the following:

- Provide employees with a safe and healthy work environment where they can live up to their full potential in return for reasonable remuneration and benefits
- Create company value and enhance shareholder value
- Promote CSR ideals and practices throughout our supply chain and work together for better performance
- Develop environmentally-friendly, energy saving products and implement management standards and sound practices to reduce our impact on the environment to fulfill customer satisfaction
- Invest in innovation and research, develop intellectual property rights, and devote ourselves to the progress of human culture and technology, the development of society and the economy, as well as the sustainable development of the Earth and its environment.
- All executives shall extend their collaboration and promote their staff members to fulfill these policies successfully.

If you have comments or suggestions to make about Delta's CSR & Ethics, please do not hesitate to contact us through [det.sd@deltathailand.com](mailto:det.sd@deltathailand.com)





**30% Green revenue**  
Ratio to consolidated revenue by 2023

**42,000 Learning hours**  
Delta Energy Education Program by 2023

**30% Greenhouse gas intensity reduction**  
by 2020

**30% Energy intensity reduction**  
by 2020

**A better tomorrow**

RENEWABLE ENERGY SOLUTIONS

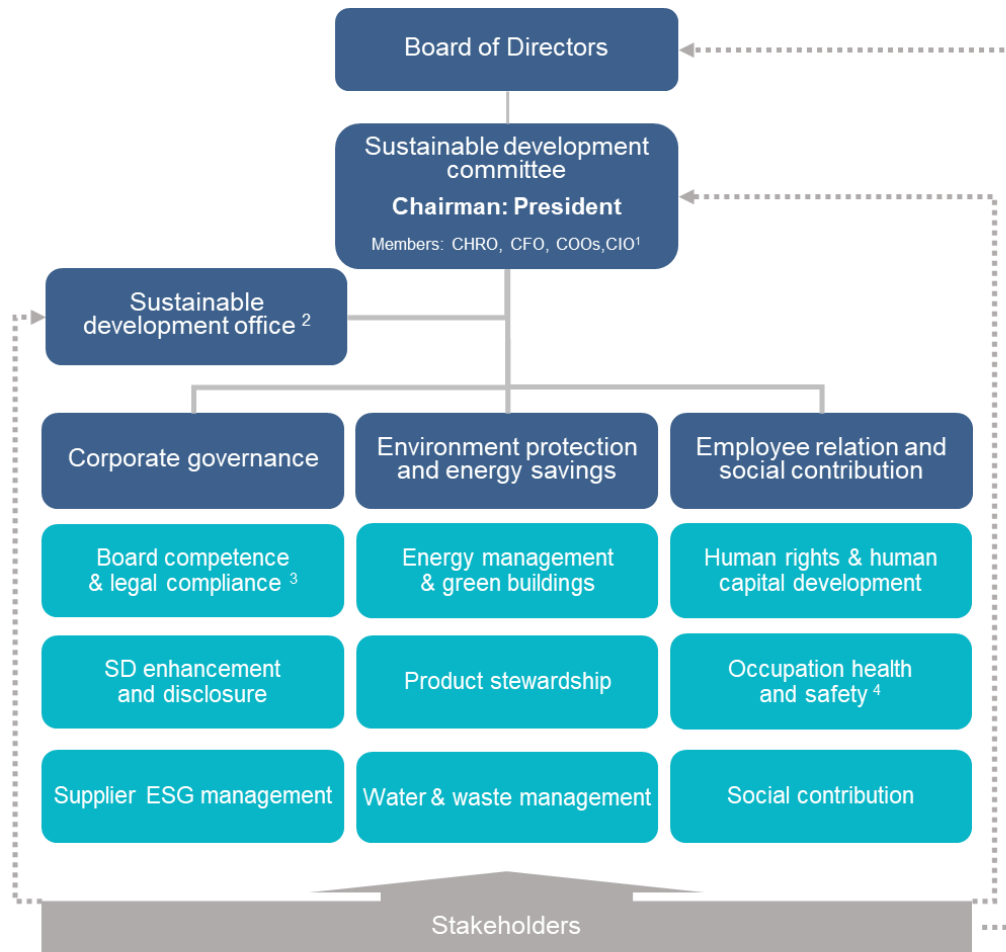
Company	Companions	Communities & Earth
<ul style="list-style-type: none"> <li>Business opportunity exploited from climate change.</li> <li>Competitive advantage from responsible innovation.</li> <li>Increment in brand value</li> </ul>	<ul style="list-style-type: none"> <li><b>Shareholders and Investors:</b> Return on investment.</li> <li><b>Employees:</b> Decent jobs and well-being.</li> <li><b>Supply chain:</b> Rapid innovation development with responsibility.</li> <li><b>Customers:</b> Affordable clean and energy-efficient products and solutions for electronic devices and system.</li> </ul>	<ul style="list-style-type: none"> <li>Climate change and global warming mitigation.</li> <li>Natural resources and affordable energy conserved for next generation.</li> <li>Distribution of affordable and clean energy.</li> <li>Value-added economy through responsible and innovative supply chain.</li> </ul>
<ul style="list-style-type: none"> <li>Operation cost reduction</li> <li>Added-value to Delta brand.</li> <li>Less emission discharged from business process.</li> </ul>	<ul style="list-style-type: none"> <li><b>Employees and community:</b> Good health and well-being for employees</li> <li><b>Value chain and broader society:</b> Awareness and actions to mitigate climate changes.</li> </ul>	
<ul style="list-style-type: none"> <li>Green and Innovation pipeline to maintain the company's core value in natural resources conservation.</li> <li>Future prospects for eco-friendly solutions and service.</li> </ul>	<ul style="list-style-type: none"> <li><b>Employees and society:</b> Greener life-style that pursue smarter and greener future.</li> <li><b>Employees and society:</b> Less waste and pollutions generated in daily life.</li> <li><b>Employees and society:</b> Learn latest innovation, technologies and global practice to mitigating climate change.</li> </ul>	

Delta Thailand has continued improving its products, processes and business models to increase productivity and generate profits while reducing costs. The company commits to providing the best return to its stakeholders and we receive local, national and international honors for outstanding performance. Sustainable growth in the ever-changing business environment to meet global needs is necessary for the company in the long-term. Delta is integrating sustainable development strategies with our business strategies. We focus on product development and continuous CSR in our business processes to address emerging risks. To achieve our strategic goal while promoting value in the value chain, Delta is responding to three key core company ideals: Smarter. Greener. Together. and our Mission Statement.

Since 2004, every employee bases their daily operations on our core company concepts which form the DNA of Delta culture and drive our social progress and effective responses to change. In 2015, Delta set targets to increase green revenue from its products and solutions portfolio while increasing energy efficiency to up to 30 percent of total revenue by 2023. These products and solutions areas include Solar Energy, Datacenter and Industrial Automation systems that respond to the needs of businesses and the wider community. With the growth of valuable business opportunities in the past 20 years, Delta's energy efficiency products and solutions rose 6.37% from 2015 when this amount of revenue have acknowledged. Finally Delta's green revenue account for 15% of the company's total revenue in 2020.



# Sustainable Development Organization



Note:

1. Since IT security and on-line platforms does matter to corporate strategy communication, Delta has include Chief Information Technology Officer (CIO) into its SD Committee members.
2. Sustainable Development organization body officially established in 2018 to drive internal ESG performance development and ESG disclosure among Delta Thailand Group.
3. Due to Thailand Cyber Securities Acts, OECD BEPS Action 13 and PDPA updated regulations, Delta has include its Legal Manager (DPOX) into its SD Committee members.
4. The COVID-19 pandemic, higher requirement of OSH standards and trend of emerging disease highlights the importance of stakeholders' health and safety, Delta separate OHS working team from HRD works to fasten OHS decision making for any possible emergencies.

According to ISO 26000 guideline, Delta has established a sustainable development organization for the full implementation of our Global sustainability development Strategy. The main body in the organization is the SD Committee which includes the company President, Chief Human Resource Officer (CHRO), Chief Financial Officer (CFO), Chief Operations Officer (COO) and Chief Information Technology (CIO : join the committee in 2018). The SD Committee reviews and monitors each CSR project, at periodic meetings, according to project-specific standards.

The SD Committee secretary proposes benchmarking procedures for the company's CSR projects and from time to time communicates the global sustainable development practices to the committee for their reference. The committee secretary is responsible to arrange quarterly CSR meetings to inform the SD Committee and operational leaders on the progress of each company CSR project. In addition, the committee secretary will follow-up on and compile ESG risk, critical concern and the results of each project in an annual report to the Board of Directors.

The CSR target fields form three categories: Corporate Governance; Environmental Protection and Energy Saving; and Employee Relation and Social Contribution. Each category has relevant directors and managers who define key performance indicators (KPI), set up specific achievement goals and take responsibility for the project's progress and on-time execution as per the company's policy and relevant standard requirements. Finally, Delta publicly discloses its sustainable development performance on annual basis at <https://www.deltathailand.com/en/download-sd-report>.

# From responsibility to sustainable growth

We embrace risk management, supply chain management, innovation and stakeholder's expectation together with responsibility for ESG aspects as sustainable innovation. Delta synergizes its technology to response to social needs in environment conservation while mitigate climate change impact. Delta has invested 100 million Baht in average since 2015 to make its operation greener. Meanwhile, the company maintains its research and development cost at approximately 4-5 percent of its consolidated revenue to develop smarter and greener products and solutions for the mentioned purpose

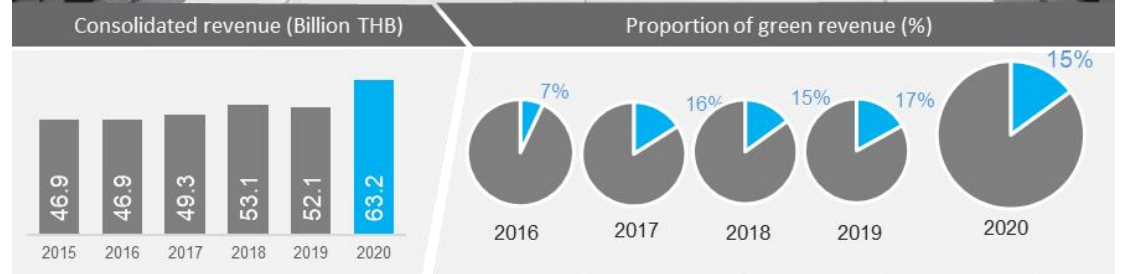
## COVID-19 crisis highlights Thailand's need for reliable and flexible data centers solutions in the digital age

In our present digital age, data centers power everything we do each day. With data centers, we can instantly read the news, send emails, shop online, make payments, track our package delivery or work remotely. The global data center network interacts to form the core engine of our digital economy. Its importance is even more apparent during the COVID-19 crisis and massive digital traffic influx. Businesses have transitioned to remote working, online retail provides our everyday necessities, and all our communication and social interactions are going online.

With growing consumer appetite for information, solid infrastructure and favorable Thailand 4.0 policies – we at Delta Electronics believe in Thailand's potential to emerge as a data center hub for Southeast Asia.

## Explosion in data volume and storage demand

Thailand's mobile penetration rate is a staggering 134%, and 52 million people are active internet users who spend nine hours every day online. And with current public crisis, time spend online will only increase.



### Note

- Green revenue contributed by the revenue from EV, Green and efficient energy solutions revenue (renewable, EV charging, Data center, Industrial automation, Energy storage systems)
- High efficiency ODM products revenue.
- The green revenue reported accordingly to the company's performance breakdown by business group presented to the Board of directors on 17<sup>th</sup> February 2020





According to [Google's e-Conomy SEA 2019 report](#), Thailand's has an internet economy value of USD16 billion, and this is predicted to increase more than three times to reach USD50 billion in 2025. While data centers form the backbone of the digital economy, a sharp spike in demand can cause many more decision makers to realize the importance of reliable digital infrastructure in business and operational continuity.

In the present climate of growth, we expect to see continued development in Thailand's large-scale government data centers, private sector cloud and colocation type data center businesses. Accelerating digital transformation in banking, telecommunication and e-commerce industries will create new value and opportunities throughout the [data center](#) supply chain.

### **Rise of hybrid data centers combining cloud and on-premise infrastructure**

Over the years, we've seen a significant shift in the industry from company owned-and-operated data centers to more of outsourcing data center requirements to colocation operators. Global technology and cloud companies are migrating from large-scale data centers to independent operators to cope with the rapidly growing demands for cloud storage and computing, as well as to increase profit margin.

We see volume and security as the two major factors driving the development of data center infrastructure towards a more hybrid type which combines the pros and cons of both cloud and on-premise type data centers. Hybrid data centers leverage small-sized data centers for local processing and storage of confidential data, in cooperation with cloud data centers to store or process other kinds of non-sensitive digital data. This means data center requirements are evolving to suit the needs of multiple small-sized, on-premise data centers rather than a single large-scale centralized data center. This approach helps business to maximize flexibility while minimizing cost and maintaining competitiveness.

In a crisis like COVID-19, turnkey data center solutions and full service from experienced suppliers can help operators be better at anticipating catastrophic events and offer better resilience planning. This crisis is a good time for more businesses to examine the resilience of their mission-critical systems and consider contingencies and backup for their data centers.

### **5G, IoT and edge computing introduce new industry players**

The recent 5G licensing in Thailand means much more than just getting faster mobile data, it will drive the IoT (Internet of Things) and form the backbone of new technologies like self-driving cars, smart city, or home and factory automation.

Smart manufacturing platforms require 5G technology to integrate with edge computing for field data processing. Data collected from field devices or sensors on the factory shop floor allow real-time remote processing and big data to inform decision making in control rooms. In order to implement edge computing to support 5G infrastructure in time, factory operators should consider prefabricated data centers due to their fast deployment and scale-out abilities.

IoT will also boost micro and colocation data centers that are alternatives for enterprise data centers. IoT devices are predicted to account for 50% of all networked devices by 2023. And half of all workloads will be run outside the centralized enterprise data center as early as 2021.

### **Data center opportunities in Thailand**

In Southeast Asia, Singapore is known for its state-of-the-art data center industry with strong network connectivity, reliable power supply and conducive business environment. But now the city-state no longer issues new licenses for data centers because it has run out of land for such infrastructure.

After Singapore, Thailand looks very promising because its central location makes it ideal for expansion opportunities into

neighboring countries. The country's Eastern Economic Corridor (EEC) zone has incentives for investors, is located less than 30 kilometers from undersea cables and situated more than 100 meters above sea level to protect it from floods.

Overall, prefabricated data centers as a great choice to accelerate Thailand's digital economy growth in the next couple of years. We support whichever data center type you choose with a wide array of choices for UPS ranging from small to large volume electricity backup, precision cooling, indoor and outdoor micro data centers, rack system and data center management software. Besides local design, installation and after sales service capability for these solutions, we can also build you complete highly reliable, ultra-efficient and excellent Total Cost of Ownership data centers for immediate success and gains far into the future.

With rising demand in Thailand and ASEAN for a more productive and convenient digital lifestyle, technology-driven IoT adoption and favorable incentives offering great return on investment – we believe it is now time to explore the best data center opportunities for you.

From the emerging relentless collaboration across different expert domains, sustainable development consciousness has gradually embed into our culture and daily operation. In addition to the risk we have been precautionous and our potential in clean and energyefficient innovation, Delta has focused on "Power and Energy Optimization Products and Solutions" business since 2010. These solutions businesses are growing and underpin our sustainable development strategy by responding to key emerging risks on a global scale. For example, the emergence of climate change was a powerful catalyst for increased innovation in our energy management and [green solutions](#). With leading technology that help our leading customer's competitiveness in term of efficiency, Delta's green revenue from energy-efficient IT Infrastructure and Automation revenues represent steady growth in 2020.



# Towards Sustainable Development Goals

From a broader business perspective, this dedication to CSR ideals makes Delta a true global citizen. Since Mr. Dick Hsieh, President, delivered Delta Thailand's Sustainable Development Goals to business partners and the company's personnel in Delta Annual Partner Meeting dated 28 December 2016, awareness and various forms of collaboration in Delta's value chain increasingly matter. In 2017, Delta realized its potential to respond to 6 major goals which aim to reduce disparities in society. The goals we voluntarily commit to include SDG4, SDG7, SDG9, SDG12, SDG13 to respond to Climate Change and SDG 17 to forge Partnerships to Achieve Sustainable Goals.

Committed SDGs	4 QUALITY EDUCATION	7 AFFORDABLE AND CLEAN ENERGY	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	17 PARTNERSHIPS FOR THE GOALS
SDG KPIs we support	<p>4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex</p> <p>4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill</p>	<p>7.1.2 Proportion of population with primary reliance on clean fuels and technology</p> <p>7.2.1 Renewable energy share in the total final energy consumption</p>	<p>9.2.2 Manufacturing employment as a proportion of total employment</p> <p>9.4.1 CO2 emission per unit of value added</p>	<p>12.2.2 Domestic material consumption</p> <p>12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment</p> <p>12.5.1 National recycling rate, tons of material recycled</p>	<p>13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions</p>	<p>17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals</p>
Our Activities	<p>Inclusive and equitable quality education, relevant skills, including technical and vocational skills, updated knowledge leading to decent jobs which reduce inequality in the society.</p> <p>Higher opportunity from quality education help ones to access the developing infrastructure in the changing global technology and world environment. Delta promotes education and life-long learning for its employees, employee's families and undergraduate students by promoting;</p> <ol style="list-style-type: none"> <li>1.) basic and STEM education</li> <li>2.) environment education</li> <li>3.) talent cultivation mechanism</li> <li>4.) experience-based learning</li> </ol> <p>Finally, life-long learning will be a noble pursuit that will keep ones healthy life even after retirement.</p>	<p>Constructing a reliable and sustainable clean energy system is one of the global focus. Delta dedicates developing solar power and renewable energy solutions, and discovering new business opportunity from these green solutions. Delta also provides affordable renewable energy and industrial automation solutions for leading research institutions to extend affordability opportunity to access clean and modern energy in rural areas and developing countries.</p>	<p>Accelerating industrial innovation and assisting in the construction of resilient infrastructure are the best solutions for companies facing the dual pressure of climate change and sustainable development.</p> <p>Strengthen innovation ecosystem by enhancing future innovator pool to advance green technology industry while mitigate environmental impact.</p> <p>Delta has implemented an internal incentive system to continuously accumulate innovative energy-saving solutions for global customers. Its applications include smart manufacturing and modal shift transportation to reduce carbon in logistics process.</p>	<p>Sustainable consumption and production are the basis for sustainable business operations. Delta upholds its mission "To provide innovative, clean and energy efficient solutions for a better tomorrow".</p> <p>To mitigate global environmental challenges including air pollution, water and natural resources scarcity, the company has implemented sustainable consumption and production into daily operations through promoting eco-efficient operation measures, procurement localization, circular economy enhancement in supply chain, green building promotion and green life-style throughout the organization.</p>	<p>Properly responding to climate change and its impact, and taking countermeasures are a major challenge for the company's sustainable business strategy.</p> <p>Delta response to climate risk by adaptation and mitigation, and continue to identify climate change opportunities. In addition, Delta uses "COP21", "Carbon Footprint for Organization (CFO)", "voluntary carbon reduction scheme (LESS)" and "Carbon Disclosure Project (CDP)" and participation in climate change-related policy as strategies to carry in-side-out strong action.</p>	<p>Delta participated in global partnerships to help activate sustainable development. In business process, Delta enhance smarter and greener value chain through various approaches of communication to our stakeholders.</p> <p>Delta participates in national and international sessions on climate change and sustainable development. We collaborate with leading organizations to develop essential infrastructures for greener and inclusive future.</p> <p>The company also share our knowledge and practices with business and social sectors to create broader greener impact for next generation's well-being.</p>





Part 2

## Corporate GOVERNANCE

2020 ESG Performance

Learn our Board's competence, Sub-committee and how we drive ethic and transparency through our value chain.



# Corporate Governance

Corporate governance systems ensure that a company is transparently managed in the interests of shareholders (including minority shareholders). On the one hand this includes checks and balances that enable the Board of Directors to have appropriate control and oversight corporate-wide responsibilities.

## Board Competence

The Board of Directors (BOD) is the key driver in developing the company's corporate governance to enable added values for Delta business. To enhance BOD's competence, Delta has the policy to encourage directors, executives and the company secretary to participate training involving good corporate governance at least once a year.

The company organizes internal and encourage the BOD members to participate external training by relevant institutions such as the SET, the SEC and the Thai Institute of Directors Association (IOD). In 2020, Mr. Chang Tsai-hsing attended Director's Briefing 10 # Driving Organizational Culture from the Boardroom by Thai Institute of Directors Association (IOD) and Mrs. Tipawan Chayutimand attended IT Governance and Cyber Resilience Program (ITG) by Thai Institute of Directors Association (IOD)

## Selection of Directors

The Board of Directors assigns the Nomination and Compensation Committee (NCC) to search, select and nominate qualified candidates to be a director or member of related committees. The committee member selection have made regardless of gender, race and nationality based on whether the candidate is knowledgeable and experienced in areas such as accounting, finance, management, strategy and possesses individual skills and expertise in line with the company's business and strategies. In addition, the NCC also consider any committee's association of social group to ensure none of them is membership of under-represented social groups, cross-shareholding with suppliers The company has prepared a skill matrix to define the requirements for members of its Board of Directors to aid in the Board nomination process. To ensure that selection of Board of Directors is fair, Delta commits to basic human rights principles including gender equality. In April 2018, one female director with experience in finance, accounting and



**5%**  
R&D investment  
maintained for our  
competence in ITC market  
since 2015

**50** Over  
Billion  
Baht  
Brand Value  
for six straight years  
since 2015

## 2020 Key Economic Performance



tax has on-boarded. This is to ensure the achievement on company's objectives [BOD diversity](#) and a solid company structure with good corporate governance standards. Each of the nine directors possesses knowledge and expertise in various professional disciplines that are in-line with the company's corporate governance policies and cover all aspects of sustainable growth.

In 2020 Annual General Meeting, the company consult our shareholders to consider and approve the appointment of directors to replace the directors who will be retired by rotation. Resolution in this agenda shall be approved by the majority votes of the shareholders attending the meeting and casting their votes. Finally, appointment of three directors has approved with 99.8% score in average.

## Structure of the BOD

Delta's one-tier-system Board of Directors comprises nine directors; three are executive directors. The remaining six are non-executive directors, including four independent directors who comprise over one-third of the Board. With one female director who is onboard in April 2018. The target number of independent directors, according to the company's practices of the Board of Directors, is no less than one-third of the total number of board members. The Board must have at least three independent directors according to the regulations of the Stock Exchange Commission and the Stock Exchange of Thailand. Explicit definition of the "independence" publishes on [Corporate Governance Policy](#) page 17-18. To ensure the independence and competence of the BOD members, Delta has recheck it's BOD members qualification by consolidating a [Board of Directors' Qualification and Competency Matrix](#). Finally, it is concluded that the independency of the BOD meet SET and SEC's requirement.

## Roles and Responsibilities

Delta Board of Directors is responsible to decide, give directions and supervise effective decision-making processes to facilitate the company's success in economic, social and environment areas. Delta's directors and executives have equal voting right to other shareholders said "one share one vote". The company has the policy to separate the roles and responsibilities of the Chairman the Board and the President. Different individuals must hold these two positions to enhance management accountability and transparency. The Board plays its role to setting purpose, values, and strategy and assigns the President to manage the day-to-day operations according to defined duties and responsibilities guidelines. Find [Annual Report](#) page 80-84 for roles and responsibilities in setting purpose, values and strategy.

## BOD's Authorization

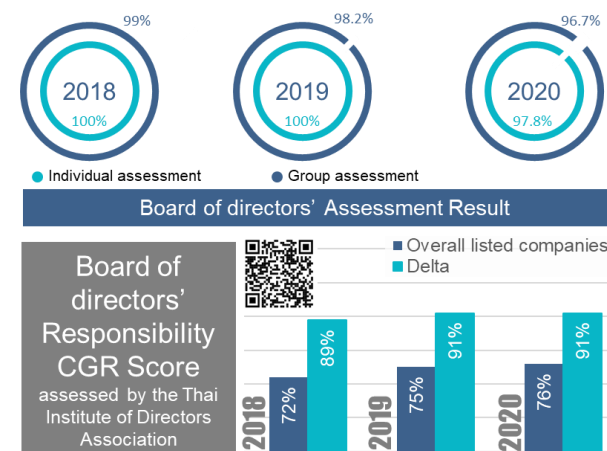
The Board of Directors can authorize matters under their scope of authority stipulated by law, the Company's Articles of Association and the shareholders' meeting resolutions. Such matters include defining and reviewing corporate vision, operating strategies, operating plans, risk management policy, annual budget and business plans, and medium-term business plans. The Board will also define the company's target operating results and follow up by appraising operating results to ensure they are in line with plans. The Board oversees capital expenditure, mergers and acquisitions, corporate spin-offs, and joint venture deals.

## Board of Directors

## Performance Assessment

The Board arranges a yearly self-assessment for the Board of Directors as follows.

1. Group self-assessment for the entire Board of Directors
2. Individual self-assessment of the Board of Directors members



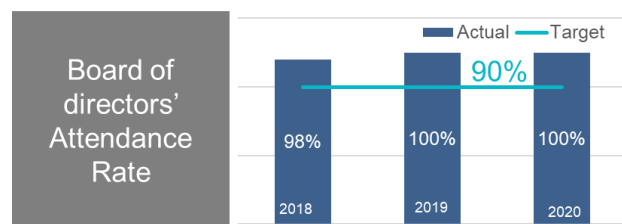
Areas of assessment include Board duties, Board structural composition and individual member's qualifications, job performance, professional development and teamwork. Other areas of member's assessment are meeting attendance, general knowledge and expertise as well as proactive action in areas of responsibility. After the assessments, the evaluation forms will be submitted to the Company Secretary for tabulation and the results will be presented to the NCC with action plans to address the gaps, if any, for deliberation and onward submission to the Board. In 2020, the Board had outstanding 96.7% of group assessment and 97.8% of individual member performance result. The Board of Directors acknowledged the results of both group and individual level assessments and discussed possible areas for improvement.

Yearly, Delta Board of Directors' responsibility is assess by the Thai Institute of Directors Association. In 2020, Delta achieved 91% score while overall listed companies' score of BOD's responsibility was 75%,



# BOD Meeting

The independent directors' service term is limited to a maximum of nine years or three consecutive terms. Appointed directors cannot hold a director position in over three companies listed on the Stock Exchange of Thailand. Board meetings are conducted at least once every quarter to review the company's business and ESG related performance and discuss important strategic issues including their risk and opportunity.



According to the Corporate Governance Policy and the BOD's agreement, the minimum attendance rate for every Board of Director member is 90% for good governance. In 2020, five meetings had held with an average attendance rate of 100%.

## Sub-Committee

In addition to their roles and responsibility as the nature of Delta business, the Board of Directors appoints subcommittees to help study, deliberate and give opinions on ESG matters. Presently, there are four sub-committees under the Board of Directors with the Executive Committee, Audit Committee, Nomination and Compensation Committee and Corporate Governance Committee. There are two committee under the President with

Sustainable Development Committee and Risk Management Committee.

## Executive Committee

The Executive Committee of the company consists of five members to operate and manage the business of the company in compliance with company's objectives, Memorandum of Association, policies, regulations, notifications, order as well as the resolution of the Board of Directors. The Committee also establishes policies, business plan, directions, strategies, budget and the main organization structure and authority of each department within the company including the organization chart in order to propose to the Board of Directors for its consideration and approval. Besides, the Committee monitors and follows up the result of the operation of the company to be in accordance with the policies. To ensure that a company is managed in the interests of its shareholders, directors, CEO and executive committee members have requested to report their ownership of the company's share accordingly to SEC's best corporate governance practice.

## Audit Committee

The Audit Committee of the company consists of three members and all the members are independent directors. The Committee reviews the company's financial reporting and consider the capability and independence of an external auditor, review that the company complies to the law on securities and exchange, the regulations of the SET and other laws related to the company business and do any other matters assigned by the Board of Directors. The service term of an independent director is no longer than 9 years or no more 3 consecutive terms and qualifications and responsibilities of the Committee as prescribed by the Stock

Exchange of Thailand. More information on the Audit committee is publicly available at our recent [Annual Report](#) page 92-93.

## Nomination and Compensation Committee

This Committee consists of three members, two independent directors and one executive director to review the remuneration policy and determine the remuneration of the directors of the company and members of sub-committee. Up to 2020, there is no claw back provision nor deferred share policy. The Committee also define the qualifications, structure, size and composition of the Board member and attracting qualified candidates for Board of Directors' consideration. The Term of office shall follow the Annual Director Election.

The Board of Directors assigns the NCC to evaluate the President's Key Performance Indicators (KPI). The NCC works together with the President to set the President's KPI with consideration to his/her role as the Chairman of the Sustainable Development Committee. The President's KPI covers economic, environmental and social aspect which are varied by the company's sustainable development targets such as revenue, profit, return on equity, regional business, training and development, social benefit optimization and environmental impact reduction performance. With variable performance considered, President and other executives' deferred bonus is paid out in April after which the income was earned for their January – December performance period. Find more detail from remuneration policy page 7.

More information on the Corporate Governance committee is publicly available at our recent [Annual Report](#) page 93-94.





In 2020, remuneration of Chairman of the Board, non-Executive Director, executive director, independent director and Audit committee chairman had 100% approved by the company's shareholders in its Annual general meeting. The Ratio of the annual total compensation for Delta President, Executive and management to the median annual total compensation for all employee was 1.97. Ratio of increment in annual to total compensation for our highest paid individual to the median percentage increase in annual total employee was closely monitored.

## Corporate Governance Committee

To systematically drive transparency among Delta Group, Corporate Governance Committee has set up in early 2019. The committee consists of three members, one non-executive director and two executive directors. The Committee review whether the company's Corporate Governance Policy, Code of Conduct and Anti-Corruption Policy are appropriate, adequate and regular update. This includes overseeing of how to promote them to employees for clear understating and actual implementation. More information on the Corporate Governance committee is publicly available at our recent [Annual Report](#) page 94-95.

## Risk Management Committee

Risk Management Committee is reporting to consists of 13 members to delegate the risk management to their respective managers, develop and review strategic risk management plans, monitor and continuously improve risk management and annually and/or any time that is necessary to present a detailed report to

the Board or to the Audit Committee. In 2020, 12 major operation risks by business with 2 critical concern had communicated to the highest governance. In addition to consideration of impact and likelihood of the ESG-related risk in daily business process, emerging risk of air pollution in Bangkok and surrounding areas which will impact DET's operation, employees' health yet expose another business opportunity had reported to the BOD as well. More information on the Risk Management committee is publicly available at our recent [Annual Report](#) page 95.

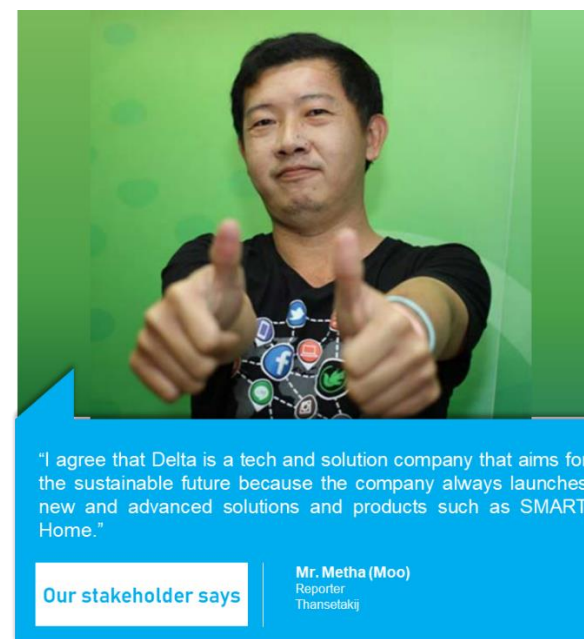
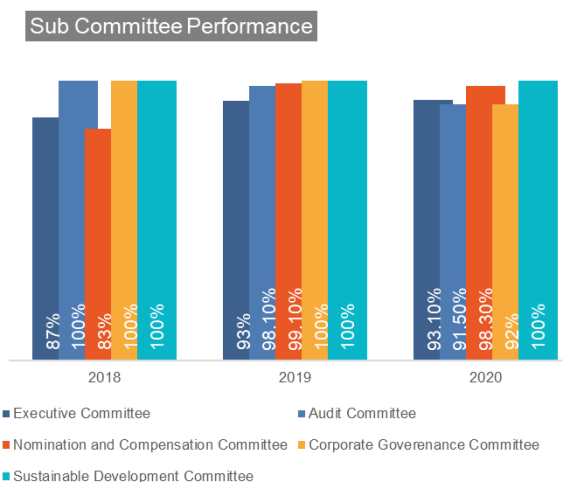
## Sustainable Development

Committee In addition to periodical meeting, ESG issues are frequently discussed among Delta group through various on-line platform Sustainable Development Committee consists of four members to delegate sustainable development to respective managers, develop and review strategic sustainable development plans, monitor and continuously improve CSR-in-process and ESG-related initiatives and annually and/or any time that is necessary to present a detailed report to the Board of Director.

Since information technology and information security play significant roles in facilitating sustainable development and transparency, Chief Information Technology Officer had join Delta Sustainable Development Committee. With the CIO's support, on-line platforms for both internal and external stakeholder engagement had developed with the right technologies and securities. All the sub-committee agree to follow the Board of director's good practice where the sub-committees' member must have a minimum required meeting attendance rate of at least 90% for effective good governance.

In 2020, Delta utilize online conference technology to facilitate our sub-committee's discussion. The sub-committees' attendance

rate has reported as following. Find more information of Delta's sub-committees at <https://bit.ly/2WiFuRo>



# Ensure Norm of Transparency

Shift in global economic power, urbanization and population growth are set to lead to a growing demand for commodities in such a way that could intensify existing interdependencies, radically alter market structures, and potentially increase the returns to corruption<sup>1</sup>. Delta has observed Corruption Perception Index to have precaution and track corruption and bribery situation in the countries we invested. In 2020, Delta has assessed its 4 major sites in Thailand (50% of global manufacturing sites) and investigate its subsidiaries in India and Slovakia (another 50% manufacturing sites) to mitigate potential risk of corruption and all the form of bribes. The company evaluation the potential 5 risky areas, strengthen up our control and perform necessary activities to implement our ZERO TOLERANCE target while maintaining its tangible and intangible assets for sustainable growth.

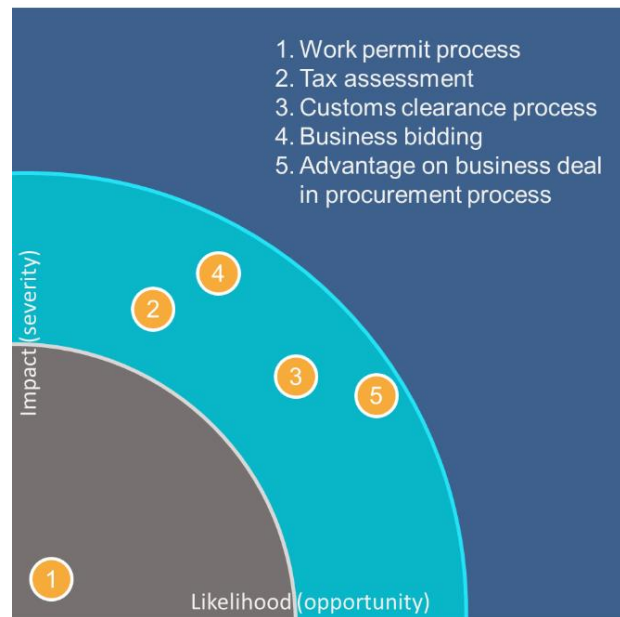
According to our public shareholding disclosure, there is no individual governmental institutions nor individual founding family members owning more than 5% of voting rights. In 2017-2020 the company does not make any contributions to or expenditures to political campaigns or organizations, lobbying, trade associations, tax-exempt entities, or other groups whose role is to influence political campaigns, anticompetitive behavior, violation of anti-trust and monopoly or public policy and legislation. Delta Thailand's list membership of association has report to the Sustainable development committee and publicly disclosed at <https://bit.ly/2W2yv9S>.

Delta Thailand's Board of Directors has approved the Anti-Corruption Policy which aim to clarify the company's goal to combat all forms of corruption had communicated to all the Board of Director and Executives based in Thailand headquarter since 2016 Delta has set a zero corruption goal to further develop our sustainability. The company commits to conducting its business with transparency and integrity. To enhance our stakeholders' confidence, Delta Thailand's policy prohibits directors, directors of sub-committees, management, personnel and related business partners of the company to act or consent to any form of corruption and all the form of bribery. Our corporate codes of conduct cover discrimination, confidentiality of information, conflicts of interest, antitrust/anti-competitive practices, money laundering and/or insider trading/dealing, environment, health and safety and whistleblowing.

1. Amy Morgan and Daniel Pease (Foreign and Commonwealth Office). *Beyond Geography: Shifts in Global Economic Power*..Retrieved from <https://tinyurl.com/y7efhd5p>



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At risk likelihood 2/5 and impact level 3/5, the company applied the COSO Enterprise Risk Management to all business processes

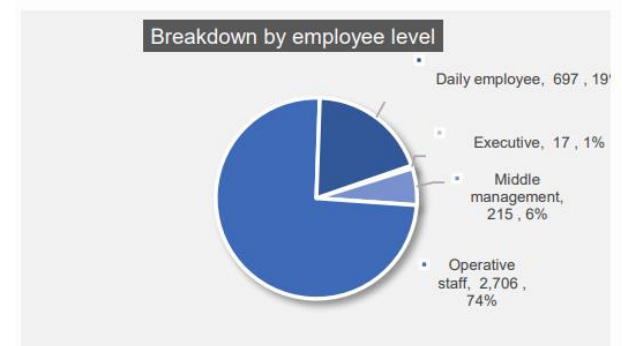
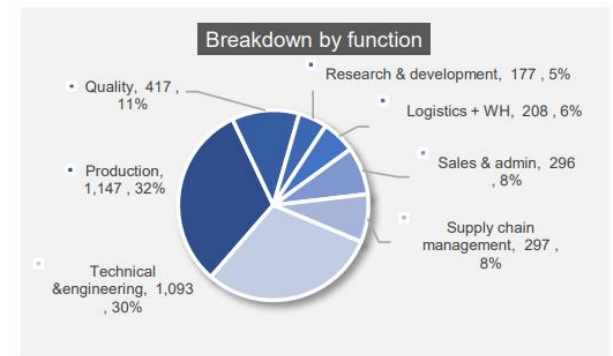
in its daily operations to mitigate corruption risk and ensure transparency and traceability in high-risk areas such as purchasing, resources use and reimbursement. In addition, Delta operates its business with political neutrality, not participating and siding to certain political party or influential political leader and not using the Company's capital, resource to support political parties, politicians directly or indirectly. Periodic 100% risk assessment and internal monitoring has placed as part of for countermeasures. However the company

Delta design various approaches to ensure our employees and relate stakeholders have communicated and aware of our high standard of ethical practice in business process.

<p><b>Existing employees</b></p> <ul style="list-style-type: none"> <li>• Sign Anti-corruption commitment</li> <li>• Specific training course on code of business conduct (online and off-line)</li> <li>• Promotion on digital media</li> <li>• SD week activities</li> <li>• Bulletin board</li> <li>• Direct email</li> <li>• Employee Relation Line Group</li> <li>• Intranet</li> <li>• Whistleblowing channels</li> </ul>	<p><b>New employees</b></p> <ul style="list-style-type: none"> <li>• Code of Conduct and Anti-corruption as part of employment contract</li> <li>• Code of conduct and Anti-corruption as part of new staff orientation</li> <li>• Sign Anti-corruption commitment</li> <li>• Specific training course on code of business conduct (online and off-line)</li> <li>• Whistleblowing channels</li> </ul>
<p><b>Subsidiaries</b></p> <ul style="list-style-type: none"> <li>• Anti-corruption policy enforcement</li> <li>• Specific training course on code of business conduct (online)</li> <li>• Sustainable Development committee meeting</li> <li>• Risk and Anti-corruption assessment on annual basis</li> <li>• Direct email</li> <li>• Whistleblowing channels</li> </ul>	<p>Delta's Anti Corruption, ethics and code of conduct communication approaches</p>
<p><b>Public &amp; society</b></p> <ul style="list-style-type: none"> <li>• Listed as Thai Collective Action Against Corruption's certified member</li> <li>• Whistleblowing channels</li> </ul>	<p><b>Business partners</b></p> <ul style="list-style-type: none"> <li>• Code of Conduct and Anti-corruption as part of new supplier registration form</li> <li>• Code of conduct and Anti-corruption as part of procurement agreement</li> <li>• No Gift Policy communication</li> <li>• Whistleblowing channels</li> </ul>

In addition to regular ethic commitment as a part of employment agreement and code of conduct training as part of new staff orientation, in 2019, our Corporate Governance Committee appointed an Anti-corruption working team. The team launched

the Anti-Corruption Commitment Program to ensure that employees are aware of their duties and responsibilities and perform their jobs with honesty and integrity. The commitment had implemented through both reliable on-line platform and physical training with black and white signatory commitment. Since 2017, accumulated 9,351 employees (65% of Delta Thailand's total employees) has educated and sign the Anti-Corruption Commitment on-line. This training help our employees to understand the context and contents of corruption, bribery, fraud, money laundry and related activities that conflict with our ZERO tolerance goal. Consequently, the knowledge from this training help to reduce the numbers of unrelated whistleblowing case that also help the working team to focus on related issue accurately.

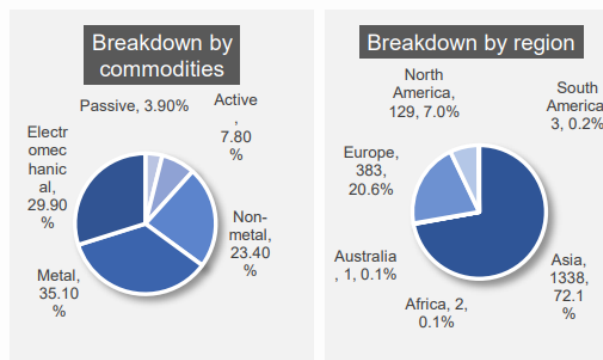




The company initiated an agreement between the purchasing department and suppliers named The Procurement and Supplier Covenants in 2001 and later changed to Integrity Undertaking to build a healthy procurement system and avoid the negative influence of human factors on normal business. The agreement is an acknowledgment by both parties to 100% of the our 1,856 active suppliers had educated and signed this agreement for common understanding to do business with integrity and without bribery or any unwarranted returns.



During the Delta Annual Partner Meeting dated 13 December 2019, the company covered the topic of anti-corruption to educate suppliers about our anti-corruption policies and stance against corruption. As well as inviting business partners to participate in symbolic expression in combating corruption together. This year the company seeks cooperation from suppliers not to send any gift/gratuity to company management, employees or their family member during New Year and other festival occasions. According to CG Committee 2/2020, The CG Committee advised related working team to engage our active supplier to sign the Anti-Corruption Commitment as well as our employee. Progress of this activities will be disclosed in the next issue of our SD report.



In 2018, Delta has signed on declaration of intent in establishing Thailand's Private Sector Collective Action against Corruption (CAC) on 16 July 2018 and submitted Self-Evaluation Tool for Countering Bribery to the CAC Board on 12 December 2019 for certification. On 7 February 2020, the company has listed as a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption. The company has established the following communication channels to allow all employees and stakeholders to provide feedback or file complaints concerning this issue.

- Communication channel for Delta employees
  - (1) Head of the unit where the employee belongs to
  - (2) Email: [HR.GRIEVANCE.SEA@deltaww.com](mailto:HR.GRIEVANCE.SEA@deltaww.com)
  - (3) Suggestion box
  - (4) Employee Relation Department's official Line account (new in 2020)
- Communication channel for other stakeholders
  - (1) Opinion Box (PO Box 50, Bangpoo, Samutprakarn 10280);
  - (2) Email: [whistleblow@deltathailand.com](mailto:whistleblow@deltathailand.com)

Depending on the relevance of the complaints, the Board's Secretary will gather and submit the complaints to the Anti-Corruption Committee, the Corporate Governance Committee or the Board. The details of the complaint will be kept confidential in order to avoid an infringement of privacy. More details on Whistleblowing policy and practice guidelines can be found on the company website [www.deltathailand.com/en/about\\_anti-corruption](http://www.deltathailand.com/en/about_anti-corruption)

At the Board of Directors Meeting No. 1/2020 and Sustainable Development Committee meeting dated 13 February 2020, the company secretary informed the meeting that there were 1 conflict of interest and 2 ethical case has informed through the whistleblowing channels in fiscal year 2020. The cases are regarding to an employee's conflict of interest, disciplinary violation and code of conduct violation. However, after the internal auditor, and assigned working team has investigate, interview and review the cases, the assigned working teams found the reasons cited for these raised cases to be baseless. Finally, there was no confirmed of corruption, dismissal, fraud and abuse during the reporting period.

In 2020, there was a public interest in the company's significant increase of the company's securities trading volume and trading price in 2020. Delta had [officially clarify](#) the Stock Exchange of Thailand on 28 December 2020 that we have no significant development which would affect the securities trading volume and trading price. Beside this public's interest, we did not receive any complaints, non-compliance with law and regulation in the social and economic area nor public legal case which brought against the company for code of conduct, anti-corruption and information and confidentiality fraud and abuse during the reporting period.





Part 3

## Eco-friendly Operation

2020 ESG Performance

Find our proactive-response to climate change, environmental PDCA, CSR in supply chain and our innovative products and processes



# Eco-friendly operation

In 2020, the emergence of COVID-19 pandemic raised our stakeholders' concern on our business continuity and economic while their interest in proactive action to Climate change has declined from their interests. However, our material topic executive panel has brought this issue back to focus. The decision is to ensure the fulfillment of our commitment to fight climate change when our manufacturing and business process normally performed in the reporting period.

According to World Meteorological Organization's press release of [Climate change indicators and impacts worsened in 2020](#), the COVID-19 pandemic in 2020 added a new and unwelcome dimension to weather, climate and water-related hazards, with wide-ranging combined impacts on human health and well-being. Mobility restrictions, economic downturns and disruptions to the agricultural sector exacerbated the effects of extreme weather and climate events along the entire food supply chain, elevating levels of food insecurity and slowing the delivery of humanitarian assistance. The pandemic also disrupted weather observations and complicated disaster risk reduction efforts.

## Proactive Response to Climate Change

To ensure our eco-efficient operation reduce negative impact on climate change, Delta learn from our stakeholder requirement, global best practices and utilize possible technologies to illustrate its brand promise; Smarter. Greener. Together, in our daily operation to mitigate climate change impact. According Delta Thailand's Risk management report, climate change had been in our focus since 2012 to conserve people's wellness and natural resources for the next generation. Delta aligned with ISO 26000, ISO 14001, ISO 14064, ISO14067 and ISO 50001 for high standard of environment footprint and CO2e management. Responsible Business Alliance code of conduct and Carbon Disclosure Project, UNGC principle 7 and 8 guidelines to reduce overall environmental footprint of companies. The company proactively plan and periodically measures its environment-related performances to seek for improvement in every process. With smarter and greener business process, mutual benefits for Delta, its stakeholders and world's environment will be inclusively enable in long-term.

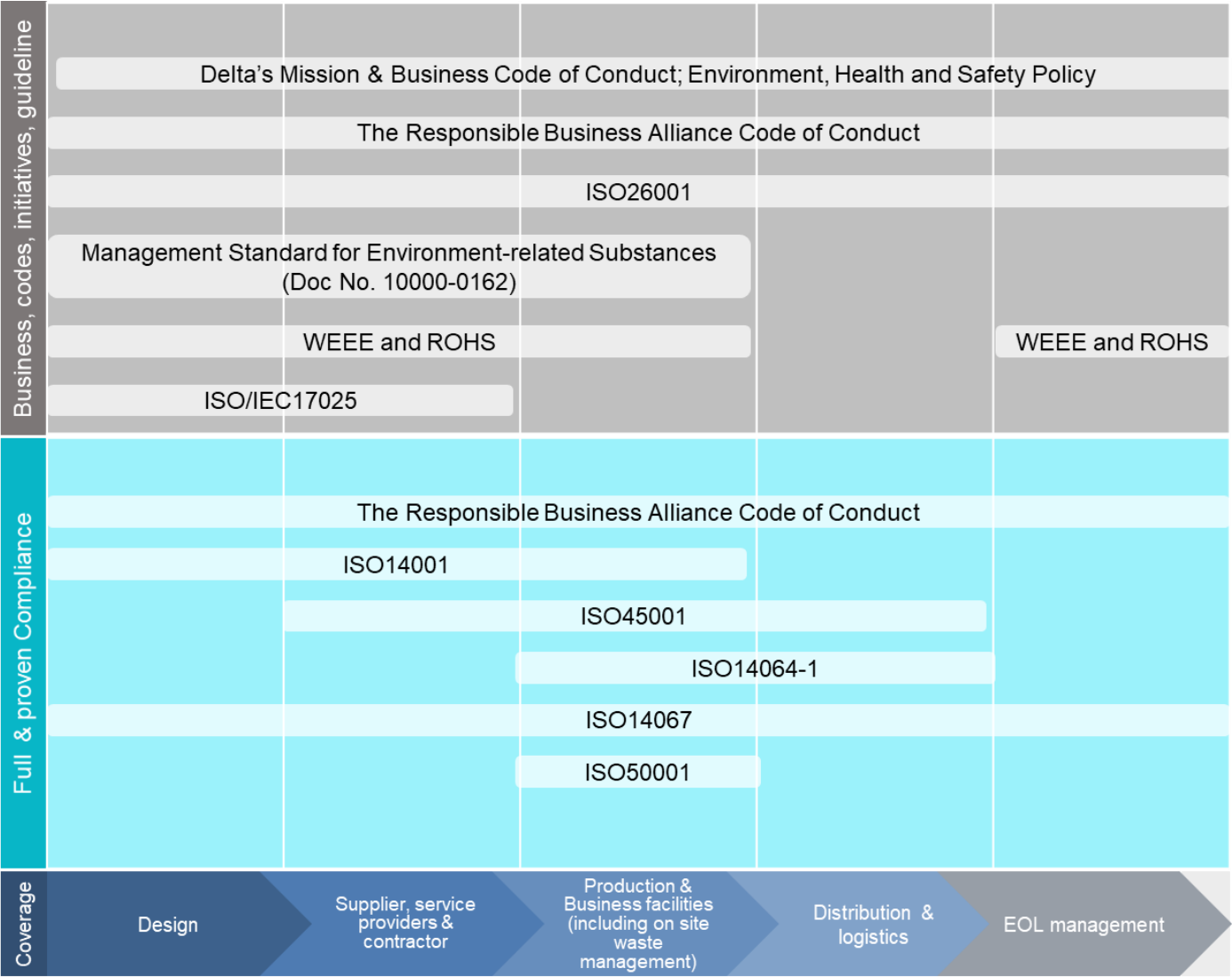




# Environment Policy and Management System

Delta's founding mission is "to provide innovative, clean and energy efficient solutions for a better tomorrow". An eco-efficient operation requires continuous effort in reducing a business' environmental impact. Our [Environmental, Health and Safety Policy](#) is showing our sincere attempt and partnership with global citizen to make a smarter and greener future. With this practical management system, drive business operations on basis of the PDCA principle (Plan/ Do/ Check/ Action).

The system allows us to cope with various contexts of quality, economic, social and environmental requirements and stakeholders' expectations, which employees at all the levels can continue applying as part of their daily activities. In 2020, there is no non-complied issues accordingly to our certified recognized standards.



**Remark:**

1. WEE and RoHs standard communicated to our stakeholders through eco-label that our end-of-life product can be easily dissembled and 80% of the dissembled part is recyclable.
2. We base on the validation of standard certificate to declare Full & proven compliance.

# Eco-friendly design

Delta Thailand has been consistently investing around 5% (higher than industry's average) in R&D budget and will remain so in the coming years as can be seen in our [Annual Report](#). The annual investment encompasses state of the art equipment, global talent sourcing and development, global R&D facilities enhancement and research activities.

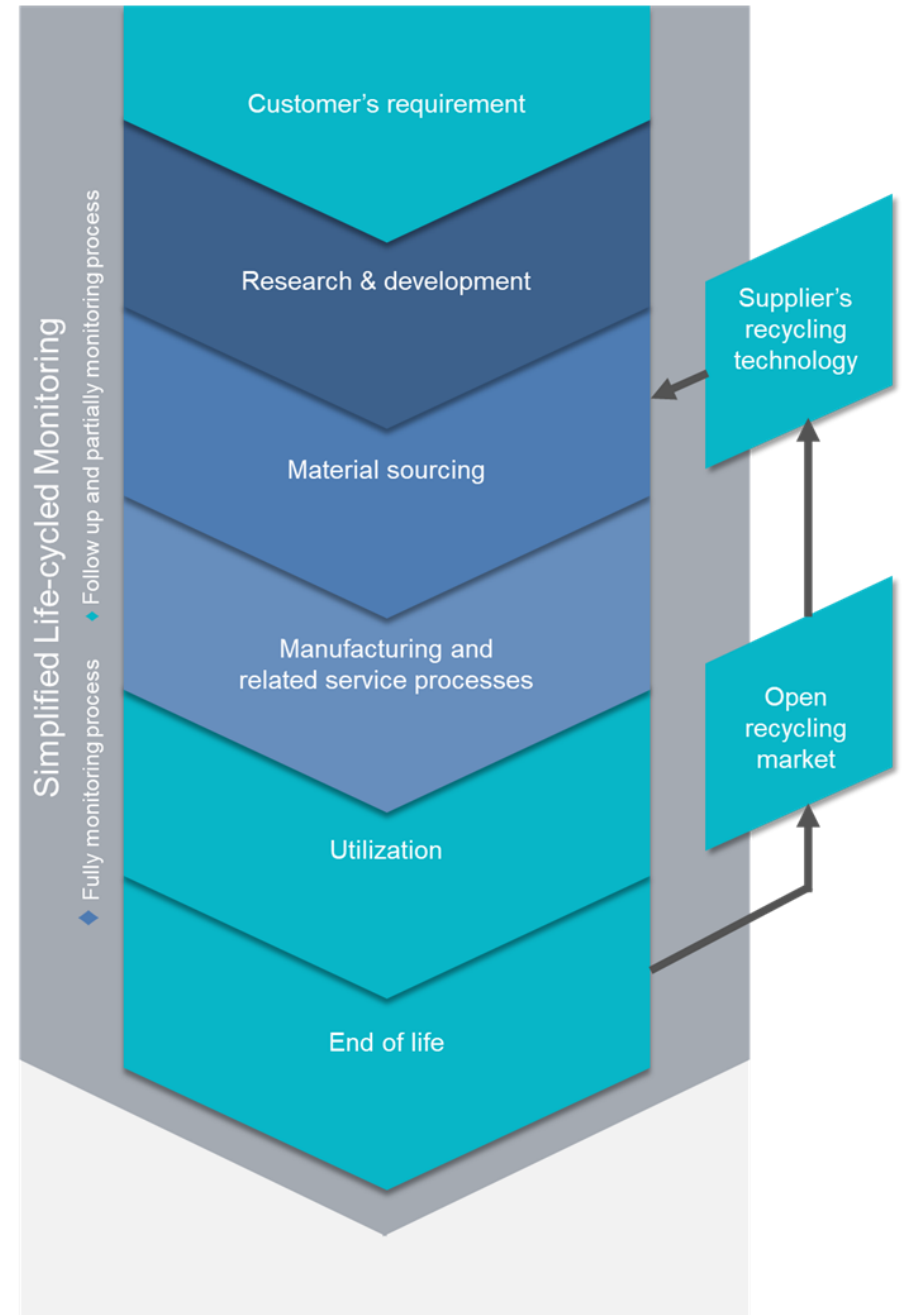
Delta shall continue to collaborate with well-established universities to keep abreast of the latest technologies and in return provide our R&D expertise (from more than four countries) and training for the respective institutions in countries like Germany and Thailand. In addition, with a healthy balance sheet, Delta is constantly looking out for suitable M&A targets. The objective in M&A is not only about growing revenue but more importantly to seek out new perspective in business and product innovations from a healthy and compatible company.

To ensure innovation is in place, Delta targets to

- 1) Launch market leading new technology every 2 years
- 2) Annual increase in power efficiency for the products
- 3) Continuously reduce carbon footprint in product development process
- 4) Maintain high R&D budget above industry average.

The success of new product development (item1, 2) will increase the revenue of the Company. Growth of green revenue and technology optimization to mitigate social and environmental impact are part of CEO's KPI to link with the executive compensation. All Delta products comply with international safety standards or international environmental requirements. Products or product packaging are also labeled with conformity information in accordance with the environmental regulations of the target market, such as the EU RoHS and WEEE directives, and the China Measures for the Control of Pollution from Electronic Information Products. We also display environmental certification information such as US Energy Star and 80 PLUS on our products that are required by our customers.

The Life Cycle Assessment (LCA) is a green design approach that systemically analyzes the environmental impact of a product from material extraction, manufacturing, shipping, product use, and disposal. According to guidance of ISO 14040 international standard divided LCA into several key processes including the definition of the goal and scope, inventory analysis, and impact assessment and interpretation. Due to the complex nature of supply chain relationships in the electronics industry,





Delta knows that a complete LCA will consume enormous amounts of time and resources. Delta has drawn on research by the Society of Environmental Toxicology and Chemistry (SETAC) on LCA methodology and adopted the Screening, Simplified and Streamlined LCA (SLCA) to focus on the issues with the most significant environmental impact, such as GHG emissions, and reduced the amount of data that needs to be gathered. Additionally by using the Simplified Life Cycle assessment (SLCA) methodology, we can accurately identify design or process areas for improvement.

## Hazardous and Environment related substances reduction

Delta has implemented the Green Product Management (GPM) IT system based on the QC 080000 Hazardous Substance Process Management System. Apart from inspecting materials testing reports from suppliers, Delta manages parts/components based on their environment-related substance risk level to ensure the proper control of environment-related substances. Delta sites have also introduced lead-free processes and low-halogen materials to help customers develop greener and more eco-friendly products.

With regard to hazardous substances and chemical safety and control, Delta abides strictly to comprehensive sets of ERS (Environmental Related Substances) procedures and standards according to our [corporate-wide procedures- Management Standards for Environmental Related Substances \(Document No. 10000-0162\)](#) and ERS Management Procedure (Document No. 06-028). Up to 2020, 80 hazardous substances endanger our employee, users and environment had taken out from Delta's book of material.

The Management Standards for ERS (Document No. 10000-0162) is an exhaustive list of internationally banned and controlled substances according to recognized standards. The standards include but not limited to the Regulation (EC) No. 1907/2006 - REACH concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) issued by the EU; the Directive 2011/65/EU (updated to Directive 2014/1/EU) for the restriction of use for certain hazardous substances (RoHS); the Regulation (EC) No. 842/2006 on certain fluorinated greenhouse gases. The ERS Management Procedure (Document No. 06-028) is an operational procedure to complement the Management Standards for ERS document so as to ensure that the substances and chemical listed inside the latter are closely managed and controlled according to internationally established procedures and methods.

The ERS Management Procedure elaborates the many measures that must be taken to control the related substances starting from product design phase including subsequent design change and then vendor sourcing, vendor audits, incoming parts inspection, in-process check and complete manufacturing control until delivery. In order to ensure adherence to the procedure by all related parties including R&D, procurement, quality assurance, production and many more, the ERS Management Procedure also identified the ERS Organization that is set up specifically to drive effective implementation and execution of the ERS monitoring and control efforts.





# Product carbon footprint

Product carbon footprint is the best example of the SLCA in action. Delta has now completed the carbon footprint inventory and verification of several Business-to-Business (B2B) products based on the PAS 2050 Product Carbon Footprint Standards issued by the British Standards Institution (BSI), including notebook adaptors, PV inverters and DC fans. Delta is committed to developing new products that reduce product carbon footprint by improving power efficiency and utilizing renewable energy sources.

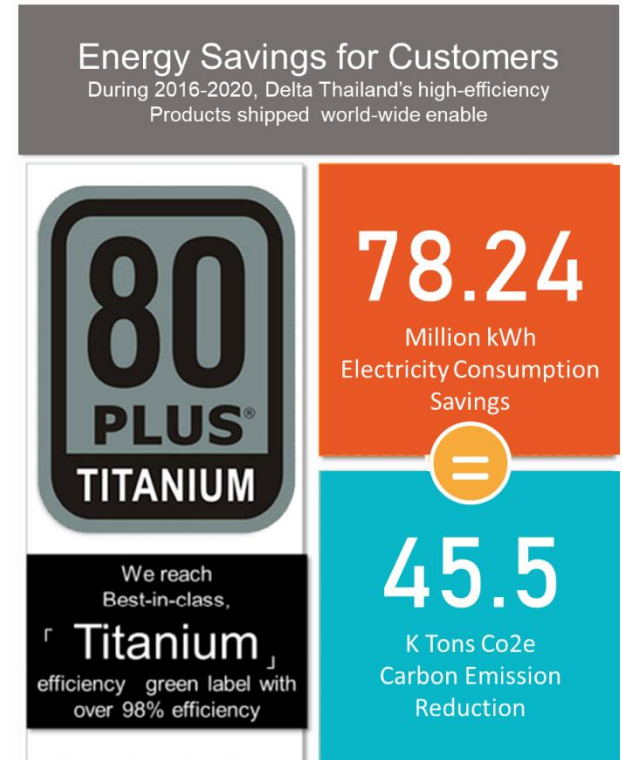
Delta targets to reduce 2% of product carbon footprint of the sampled products every 3 years. For example, our power supply units used in data centers have the highest efficiencies in the world to significantly reduce power loss. Furthermore, the energy storage system of Delta's bi-directional PV inverters has overcome the storage limitations of photovoltaic energy. In addition, Delta's wind power products are gradually entering the market with the goal of increasing the percentage of renewable energy sources used in global power generation.

# Product efficiency enhancement

For ICT devices and solutions, Energy efficiency is the frequently asked query raised by our customers. It is not only the electricity and excessed heat management cost resulting from ICT solutions' 7/24 operating hours, but also the transmission stability when the source of electricity power switched to renewable sources resulting from their environmental awareness. High efficiency power supplies that help to stabilize power distribution and generating power from renewable sources have become priorities for customers in ICT industry.

Delta is strongly committed to our mission "To provide innovative, clean and energy-efficient solutions for a better tomorrow" In 2020, the company sampling our custom designed power supply to compare its product carbon footprint with the same product certified ISO14067 last three years. By using IPCC 2013 GWP 100a v1.03 analysis method and SimaPro 9.0.0/ Ecoinvent 3 software, it was found that our effort to improve in raw material phase, manufacturing phase and market phase in pass 3 years helped reduce 21.3% of CO2e generated through this product life cycle. Majorly, this significant improvement is the consequence of the consumption of more recycled energy used in our manufacturing process.

The company will continue to improve our product energy efficiency. Most of Delta's power management products have surpassed 92% energy efficiency, such as our PV inverters with a conversion efficiency of over 98.7%, DC-DC converters for automotive with 96% efficiency, and telecom power supplies up to 98% efficiency. Find Delta Group's leading-efficiency products at [plugloadsolutions.com](http://plugloadsolutions.com)





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P/N 料号 料號 : R0501-A0030-11  
DATE 日期 : 25082015

REV 版本	0								
	8								
	F								

INPUT 输入 輸入  
AC100-240V 7.5A MAX. 47-63Hz  
OUTPUT 输出 輸出  
+5VSB --- 1.0A MAX.  
+5V --- 40.0A MAX.  
+12V --- 33.0A MAX.

THE TOTAL COMBINED OUTPUT POWER OF THE +5V, +12V AND +5VSB SHOULD NOT EXCEED 600W.  
+5V 和 +12V 和 +5VSB 的組合輸出不能超過 600W  
+5V 和 +12V 和 +5VSB 的組合輸出不能超過 600W

台达电子工业股份有限公司  
**DELTA ELECTRONICS**

MODEL 型号 型號 : TDPS-600FB A REV 版本 : 08F  
S/N 序号 : ABTT15352248  
MADE IN THAILAND 生产地: 泰国 / 生產國: 泰國  
制造商: 台达电子工业股份有限公司 仅适用于海拔 2000m 以下地区安全使用

声明: MM 警告使用者: MM  
此为A级产品, 在生活环境中, 这是甲類的資訊產品, 在居住的環境中使用時, 可能會造成無線電干擾, 在這種情況下, 使用者會被要求採取某些適當的對策。



1. Specification and clear product information is basically in English and Chinese which are used by over 46% of global citizen. (Ref: <https://bit.ly/2vPPQJg>)
2. Product origins.
3. Information of health, safety and environmental handling according to requirement of customers in various regions.
4. Level of product efficiency helping our customer to create positive impact from less energy consumption
5. Disposal instruction of the product
6. Barcode display for data traceability of part/component source.
7. Safe use of the product.
8. Laboratory standard assurance.

## Eco-labels and Eco-declarations

Consequently from Delta Group participation in COP21 and various occurrences resulting from climate change; product Safety, health and environmental handling instruction on electronics products is in global regulators and customers focus. According to the company procedure of Product Regulatory Mark Application and Control Procedure (document no. 06-025), 100% Delta products declare related compliances with health, safety and environmental regulations to encourage our worldwide customers to make informed purchasing choice. Content, that particularly might produce an environmental or social impact, safe use of the product and proper disposal; for example, had significantly posted onto our products.

In 2010, Delta launched the “EnergE” program for rectifiers which offers a energy savings calculator on the product webpage to help customers understand the cost and energy conservation benefits they can achieve by using Delta rectifiers under different scenarios based on the type of power source, number of sites, average load per site and energy cost information. In addition, we added “EnergE” labels to our Rectifier product catalogs and products with energy efficiency of over 95%, 96%, and 97% to allow easy identification by customers. Delta support informed purchasing choice by applying Ecolabel onto its product.

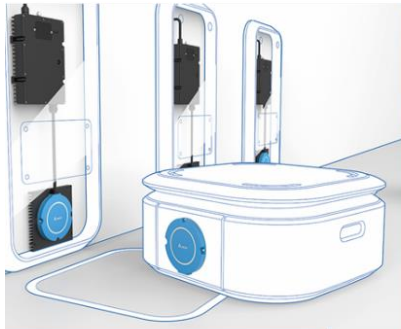


Type	Standard/ principle references	Features	Key samples	% to sampled products
Type I Ecolabels	ISO 14024	<ul style="list-style-type: none"> <li>pass/fail award system third party grants license to use label (typically a logo)</li> <li>voluntary</li> <li>multi-issue, based on product's life cycle impacts</li> <li>Criteria set and product assessed by third party</li> </ul>		
Type II Self-declared environment	ISO 14021	<ul style="list-style-type: none"> <li>text statement and/or logo</li> <li>improvements should be quantified</li> <li>voluntary</li> <li>avoid meaningless statements eg 'environmentally friendly', 'sustainable'</li> <li>generally single issue but may be multi-issue; must be significant according to ISO standard</li> <li>self-declared, no third party involvement</li> </ul>		6.7%
Type III Environment declaration	ISO 14025	<ul style="list-style-type: none"> <li>quantified information</li> <li>may be presented in variety of forms eg. text, graphs, pictorals.</li> <li>multi-issue, based on Life Cycle study</li> <li>Generally B2B, or used in public procurement</li> <li>self-declared but must be peer reviewed according to ISO technical report</li> </ul>		93.3%

In 2020, Delta Thailand had sampling checked its top ten revenue custom design products which cover 15% of Thailand's revenue. The sampling check is to ensure implementation of environmental declaration on its products. Up to 2020 more than 200 of Delta power supply products had obtained 80 plus certification, and some of them achieved the Titanium level launched in volume production. Nevertheless, Delta Key businesses majorly falls at ODM/OEM business section, any label on product is under customers' specification requirement. During the reporting period, there was no incidents of non-compliance concerning product and service information labeling, marketing communication, the health and safety impacts of products and services.







WiTricity licenses wireless charging technology to Delta Electronics for Industrial Applications



Delta Thailand Introduces 4G Cloud Router DX-3021L9 for Efficient and Secure Industrial Automation Communications

# Keep introduce innovative solutions

In 2020, we maintain our R&D investments at 5% of consolidated revenue with specific focus on our fast growing businesses for electro-mobility, networking, datacenters and industrial power. Major extensions of the product lines and integrated solutions were achieved as well as continued improvement of our product's key features efficiency, power density and digital intelligence. Additionally, Delta R&D has increased the application range and customer base respectively of its power technology products like industrial wireless charging, combined charge units for the electro-mobility and artificial intelligence. The healthy view of the markets, their customers and their demands combined together with the R&D manpower's know-how and strengths is the door to Delta's competitiveness and leadership in green environment and efficient energy saving power devices and solutions.

To keep introducing our innovation to the market during the COVID-19 outbreak, Delta started transforming our marketing communication to [virtual events](#), online [training and webinar](#) and [virtual showroom](#) platforms. These interactive channels helped boost up our global customer and public to have more information on our products and solutions while still safe and healthy at their places.

Delta Electronics India Showcased Technology and Solutions Catering to the Electrical Industry and Power Sector Ecosystem



Delta Builds Taipower's Largest Energy Storage System for Xia Xing Power Station on Kinmen Island

Be the first Who know our move!

Subscribe to receive email about Delta's products and events.



Delta Thailand Unveils DIAView SCADA Version 3.5 for Enhanced Automation Management in Southeast Asia



"We are committed to accessibility and convenience for our customers along with a quality product experience. Our partnership with Delta, a leading power and energy management company is another aspect of our commitment to help us pioneer and further develop the ecosystem for EVs in India."

Our stakeholder says

**Mr. Gaurav Gupta**  
Chief Commercial Officer,  
MG Motor India



# Retain Innovation pipeline

Regarding more frequent technology break through and changing aspect of customer requirement changeover, innovation pipeline is vital for our long-term growth. With over 1,400 patents and countless knowhow, Delta frequently disseminate its cutting edged technologies to develop ICT and related industries infrastructure

The Covid-19 pandemic highlighted the importance of technology development. From our genuine willing to enable children and youth's awareness of technology, we were interest by broader society in how we use technology to maintain business growth, health, safety and well-being against the global outbreak. This can be illustrated by the increasing number of engagement by non-tech institutes visited and engaged us last year.

Since 2016, Delta Thailand teams from Thailand's leading university to win the 6th Delta Advancve Automation Contest (Delta Cup). Due to the COVID-19 outbreak in 2020, this activity had postponed to ensure the students' health and safety. During 2016-2019, we sponsored 79 participated team, the teams from the three countries vied for top prizes with elite engineering student teams from Taiwan and China. Delta Thailand's business associate, Delta Electronics Inc. organized the 5th Delta Cup under the event theme-Seeking Smart Manufacturing Talents. Delta's offers training and sponsorship in the Delta Automation Academy, Delta Automation Labs and Delta Cup as part of its commitment to develop society and support Thailand's competitiveness in the Industry 4.0 Era. These academic projects also aim to provide work experience to the students who are the industry's future innovators after their graduation. After on-field experience on application, equipment and knowledge adoption, these new generation engineers will be quality blue pillars to advance innovation infrastructure of ICT industry in long-term. With their creative use of Delta automation products for industrial applications, Thai teams participating at the Delta Cup received the following awards from the judging committee comprised of industry, government and academic experts.

At the Sustainable Committee Meeting last year, the meeting conclude with consensus that, in spite of the continuation of the virus, this activity should be transform to a virtual contest in 2021. This is to continuously increase the rate of youth with information technology skills.







## Responsible supply chain

To enrich responsible supply chain for competitive quality, technology, delivery, cost, human rights, environment impact mitigation and ethical society, Delta Electronics (Thailand) Public Company Limited and its subsidiaries encourages our suppliers to follow [Delta's Supplier Corporate Social Responsibility Policy](#) as following:

- Uphold Delta's founded mission "To provide innovative, clean, and energy-efficient solutions for a better tomorrow" to implement corporate social responsibility, and actively become Delta's partner in promoting sustainable development.
- Establish a responsible supply chain that protects the environment, strictly abides by ethical standards, respects labor human rights, provides a safe and healthy work environment, and strives towards sustainable development.
- Comply with laws and regulations.
- Collaborate with suppliers to invest in research and development of green innovation and develop environmentally-friendly products to mitigate the impact on the environment.
- Follow the principle of sustainable procurement and prioritize procurement of products or services from suppliers who: promote innovation; respect human rights; protect the natural environment; combat climate change; conserve energy; and improve employment, public health, and social conditions.
- Evaluate and manage suppliers' superior quality, competitive cost, on-time delivery, service teams, and sustainable development capabilities to meet Delta's requirements and enhance the competitiveness of the overall supply chain.
- Commit to social well-being activities, and encourage employees to participate to promote the development of the industry.

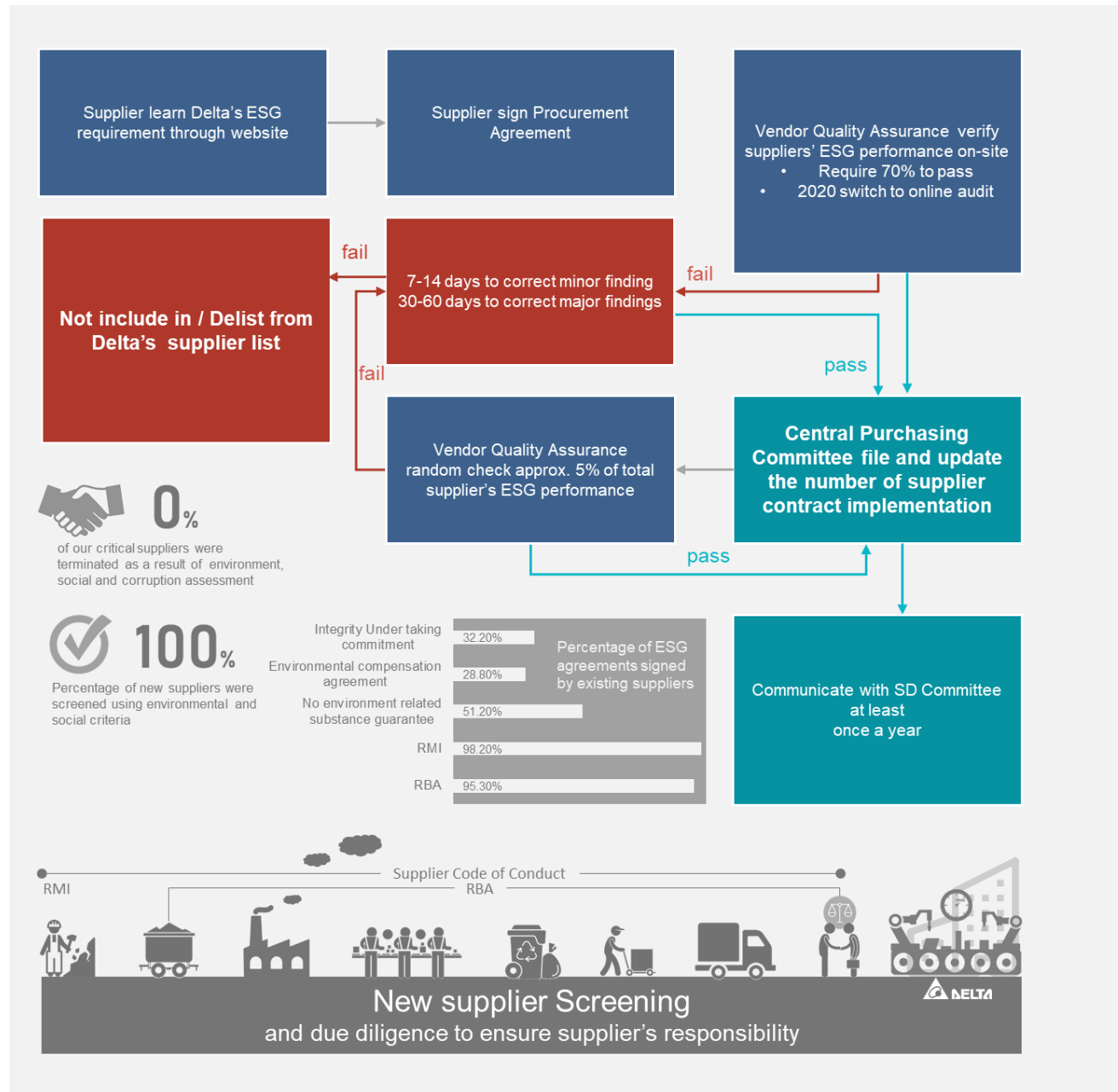


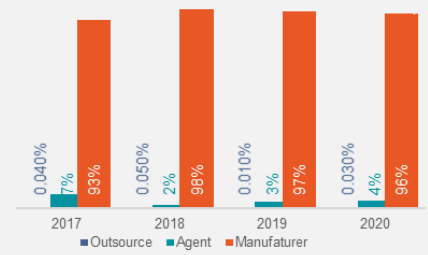
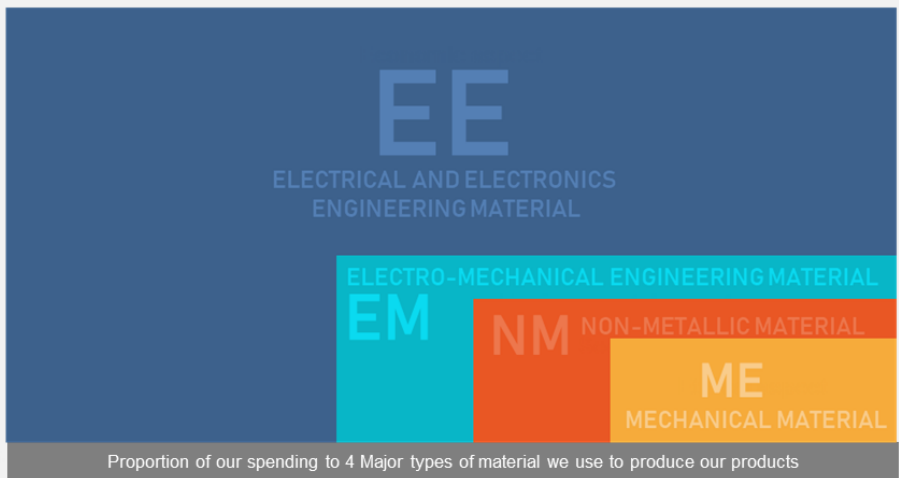


Well-managed supply chain does not only help Delta but also our customers in term of competitive quality, technology, delivery, cost, human rights and social responsibility. Climate and demography change lead to raw material scarcity and high competition among global supply chain. Delta views suppliers as long-term partners as described in our [Delta Supplier Social Responsibility Management Measure](#) which is based on the [RBA code of conduct](#) guidelines. We believe a prolonged partnership is only viable between enterprises with similar cultures and make integrity, code of business conduct and honesty our top priorities when selecting a supplier. Thousands of suppliers all over the world are Delta business partners and support our promotion of a sustainable business.

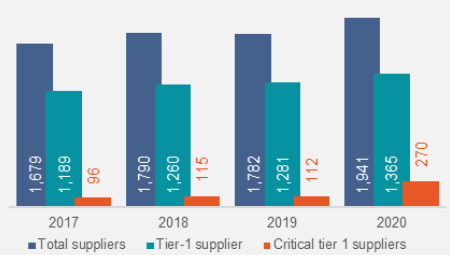
Since 2001, Delta formed an [agreement](#) between its purchasing department and approximate 1,900 active suppliers to ensure integrity in its supply chain. The Procurement and Supplier Covenants promotes a healthy procurement system that avoids the negative influence of human factors such as bribery or unwarranted returns on normal business. During the Delta Annual Partner Meeting 2019, the supplier's quality and ESG performance, circular economy, Delta's responsible business directions, emerging risks, technology and global trend updated and collaborative opportunities among supply chain had communicated to our global automotive suppliers.

Up to 2020, 100% of our new suppliers that were screened using social and environmental criteria. According to higher frequency of global supplier's interest in being Delta's suppliers, we establish an online [Supplier Registration Platform](#). This platform help those who are interested in joining Delta's supply chain to have precaution about out high requirement of ESG responsibility. Meanwhile, it create a pool of potential suppliers to shorten our sourcing process against global raw material shortage and shocked supply chain due to the COVID-19 outbreak. For the existing suppliers who partner with us before global interest in ESG, Delta engages them to sign related ESG agreement with evidences attached. These suppliers had informed that there may be a random on-site audit at their sites after the agreements had signed

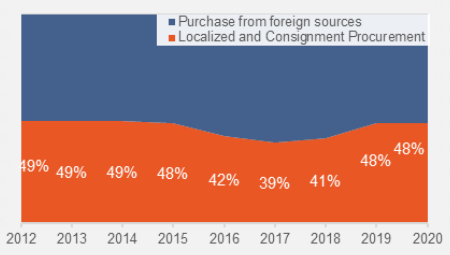




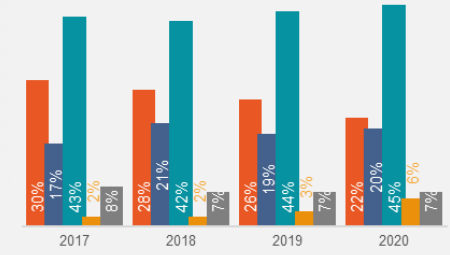
Type of suppliers



Distribution of critical supplier (no critical non-tier 1 supplier)



Procurement management for online time delivery and ESG closer control



Geographic spread of our spendings for raw material

To understand supply chain risks and dependencies from a general, economic point of view, Delta undertake its annual procurement spending analysis of its 100% suppliers to secure its productivity performance, cost management and sustainability management accordingly RBA code of conduct. Over 1,000 Million dollar was the cost of raw material we spend for raw material from above 1,900 active suppliers in 2020. Over 50% of our material used for production process in 2020 were electrical engineering material (EE) follow by electro mechanical parts, non-metal and metal part respectively. Moreover, this spending analysis, help Delta to ensure its independency from any supplier (not over 5% of total spending) to secure our material validation for order ramp up due to society's need of ITC service during the lockdown period.

For effective communication, ESG-related issues control, Delta major raw material and component had supplied by direct manufacturers rather than agents and outsourced suppliers. For direct control our supplier's ESG responsibility, Delta aims to have 100% tier-1 supplier in 2023. In 2020, Raw material and component direct suppliers and manufacturer counted as our tier-1 suppliers slightly decrease from 72% in 2019 to 70%.

Due to the of the pandemic, port recession and EE material global shortage in 2020, we switched the source of certain raw material to optional but qualified sources in Asia region. However, this order fulfillment attempt caused no significant change in Delta's direct material's supply chain.

To enhance ESG performance of critical supplier **type 1** (high purchase volume) while closely monitoring critical supplier **type 2** (Critical component, co-design component, single source suppliers, mold suppliers or similar) and **type 3** (non-substitutable suppliers and newly introduce suppliers) competence, Delta continues to adopt purchasing localization is highly required. Localization is Delta practical way to establish close linkage to local partners, improve social and economic development in the community and reduce the environmental footprint of our operation. To mitigate supply chain hiccup, Delta target to have one-third (35%) of total suppliers localized by 2023. In 2020, 22% of direct materials had purchased locally for our major production sites in Thailand India and Slovakia. This material localization ratio slightly increase from 26% in 2019. Regarding these 3 major procurement practices, either risk as nature of business process or emerging risk in supply chain can be effectively mitigated. With smooth and collaborative supply chain, agile action to fulfill Delta requirement and customer satisfaction has stably retained.

## Responsible supply chain enhancement

“How to have long-term business with reasonable margin and smooth supply chain among natural resources constraint, changed-over technology and high competition market?” was the question recurrently asked by our suppliers during supplier engagement meetings with accounted buyers. RBA code of conduct became our world-class customers’ expectation. According to Delta stakeholder engagement questionnaires and frequent customer engagement questionnaire, human right issue especially forced labor in ICT industry was still in broader society’s interest.

To this concern, Delta encourage our suppliers to provide their collaboration to enhance Green supply chain. This not only lowers operational costs for us and our suppliers but also increases the competitiveness of the entire supply chain. Finally, the company realized our suppliers’ collaborative actions as following

Since 2014 Delta promotes RBA (EICC) Verification Consultation to lower ESG risks in our supply chain and improve competitiveness. Delta Thailand set up a verification and consultation team, “RBA (formerly) EICC committee”, composed of five major departments: Human Resource Administration, Occupational Health and Safety, Facilities, Central Purchasing Control, Purchasing Material Control and Supplier Quality Management. The RBA committee will examine related law and regulation compliance, human rights, labor rights, health and safety, environmental issues and Ethics and Management Systems accordingly to our [standard checklist](#). We found room for improvement for most of our suppliers in Health and Safety aspects of the RBA management system. Delta plan to implement 100% critical supplier RBA audit in 2023.

Delta request all new suppliers to have certifications in Quality, Environment, and Occupational Health & Safety and sign the company’s “Integrity Statement” and “[Responsible Business Alliance Commitment Statement](#)”. Delta also encourages existing suppliers to have the above-mentioned certificates. In 2019, Delta group has established “[Supplier Registration Platform](#)” to allow global suppliers to have precaution about Delta’s supply chain responsibility. In this platform, a supplier can pre-assess his/her organization performance to Delta’s requirements. Business overview, qualification process, sample of agreements, CSR direction and related business terms are available on the platform. According to our [Supplier Management Procedure \(doc no 06-009\)](#), RBA audit score will be used for supplier classification. The classification will affect each supplier volume of order share, reporting process as well as Delta’s decision qualification process.



At 70% point score threshold, our 2020 audit (include paper-based audit) included 84 suppliers. Delta RBA audit team has closed 18 risky areas at our supplier sites. Majorly, these findings are the suppliers risk to environmental, occupational health and safety and labor law violation. However, these suppliers can perform corrective action accordingly to Delta requirement (immediate action after audit for minor findings and up to 60 days for major findings.). 8 minor findings regarding out-date policies and other documentation has fed back to 6 suppliers and their corrective action had implement timely. Finally, accumulated 371 suppliers (19% of total active suppliers) audited who all passed with an average score of 89 points, mean 84 points and highest score 96.71 points. None of our supplier has suspended, disqualified and terminated due to violations our environmental, social, quality and services agreement and corruption.

Since 2019, Delta conduct supplier CSR Assessment to urge boost up suppliers performance of CSR in-process. From this assessment our definition of critical supplier has extend to cover environmental, social and governance ethics. At the first stage, suppliers’ CSR assessment has implemented in Tier-1 supplier pool by using criterions aligning to the Responsible Business Alliance code of conduct, 6 UN SDGs that we focus, emerging risk and the emerging events in the reporting period. In addition, we regard these criterion as our risk in supply chain to be monitored and control closely.







### Our measurement / control

- Supply chain risk included in Risk management process
- Annual spending analysis
- Supplier % of supply chain share control
- Supplier localization
- Long-term / forward supply volume forecast
- Supplier Delivery Compliance Agreement
- Non-disclosure Agreement
- Supplier Quality Compliance Agreement

#### KPI

- **GRI 301-1** Materials used by weight or volume

- High volume supplier or similar
- Non substitutable supplier or similar
- Critical component supplier or similar
- Supplier in commodity / material that face the global shortage.

## Economic 117



### Our measurement / control

- Environmental risk included in risk management process
- Pre-business environment requirement available at Supplier Registration platform.
- ESG Embed procurement agreement
- Environment management for RBA on-site and online audit
- Supplier engagement for recycled input material information collection.

#### KPI

- **GRI 414-1** \*Percentage of new suppliers that were screened using environmental criteria.
- **GRI 414-2** Percentage of critical suppliers that were terminated as a result of social assessment

- Supplier that OHSAS18001 or ISO 45001 certificate is not valid
- Supplier that HRA, Welfare, and Safety department has not organized.
- Supplier that over 50% of their employees are foreign workers, minority groups or workers who should be vulnerable from human trafficking.
- Supplier that 100% of their process done by human. (no automation)
- Supplier that provide dormitory for their workers.
- Supplier that their employee working hours and payment is not computerized.
- Supplier that whistleblowing or other communication channel for worker to raise their concern of human right is not valid.

## Social 531



### Our measurement / control

- Environmental risk included in risk management process
- Pre-business environment requirement available at Supplier Registration platform.
- Environment requirement as part of Procurement agreement, RBA on-site and online audit
- Supplier engagement for recycled input material information collection.
- Supplier Environmental Problem Compensation Agreement (10000-2002)
- ERS Guarantee Letter (10000-0162) & Notice Regarding Environment (10000-2001)

#### KPI

- **GRI 301-2** \*Recycled input materials used (at tier-2 & tier 4 supplier)
- **GRI 308-1** \*Percentage of new suppliers that were screened using environmental criteria.
- **GRI 308-2** Percentage of critical suppliers that were terminated as a result of assessment

- Supplier that ISO14001 certificate is not valid.
- Supplier that 100% of their raw material sources/ mined from natural sources. (non recyclable raw material)
- Supplier that use high electricity intensity to produce their product.
- Supplier that use high water intensity to produce their product.
- Supplier that their site is located in water scarcity area.
- Supplier that waste an effluent management process had implement internally by themselves

## Environment 42



### Our measurement / control

- Corruption risk included in risk management process
- Pre-business environment requirement available at Supplier Registration platform.
- ESG Embed procurement agreement
- Environment management for RBA on-site and online audit
- Supplier engagement for recycled input material information collection.

#### KPI

- **GRI 205-3** \*Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption.

- Supplier that payment must made by cash only.
- Supplier that their product supply must get approval from government official / customs.
- Supplier that whistleblowing or other communication channel for worker to raise their concern of corruption is not valid

## Ethics 37

#### Note:

1. Currently, Delta Thailand has over 1,900 active suppliers
2. \* KPI available in SD report has verified by independent auditor



## Risk in supply chain

Delta uses tools such as [OECD Due Diligence Guidance for Mineral and related risk mapping](#) that considers economic, environmental, and social factors to verify potential risks in the supply chain and strengthen risk management. During the past years, the number of key suppliers for our power supply products that received relevant industry standard certificates has increased every year.

### Modern Slavery labor and human trafficking

According to the U.K. Modern Slavery Act of 2015 and Thailand's Emergency Decree Amending the Anti-human Trafficking Act, B.E. 2551, B.E. 2562, (the "Act"), Delta Electronics Thailand and its subsidiaries ("Delta") has performed essential due diligence to prevent modern slavery and human trafficking in our business and supply chain. Though all suppliers are requested to sign an RBA commitment statement, we keep tracking our supply chain as preventive action. In 2020, we surveyed a total of 189 Tier 1 and 19 Tier 2 suppliers through an ESG questionnaire survey to identify those with a high risk for human rights issues in the supply chain. We identified a total of 25 Tier 1 and 7 critical non-Tier1 high risk suppliers, for a high risk rate of 10.9% and 17.9% respectively.

Excessive work hours is a common management problem in the industry. Our RBA verification and consultation team provided experience in introducing and promoting Delta Thailand's Management System to address these findings to our suppliers. The team also conducted status followed-up to ensure continued improvement. The company sets target to gain 100% signatory

agreement implementation of all commodities include Electro mechanical, Non-metal and Metal in 2023.

To encourage our stakeholder and business partners across industries, Delta disclose our declaration of Modern Slavery labor and human trafficking on our [website](#) on annual basis.

### Conflict Mineral Sourcing

Since 2010, Delta implements a [Conflict Mineral Policy](#) that bans the use of Tungsten, Tantalum, Tin, Gold (3TG) and cobalt mined from human right harassment countries accordingly to "Dodd-Frank Wall Street Reform and Consumer Protection Act". The company's suppliers had request our power supply products suppliers to declare the origin of out a "Metal Origin Survey Form" and to sign a "Responsible Minerals Initiatives (RMI) Agreement". These are very important steps to help mitigate human rights risk, we also help trace the original ores of metals in our supply materials.

By 2020, 98.2 % of our major material suppliers have signed the "[Responsible Minerals Initiatives \(RMI\) Agreement](#)". It was ensured that conflict metal in our supply chain yet and continue to communicate the need for our major materials suppliers to leverage their influence for corporate social responsibility and increase efforts for origin verification of ore products by the RBA or a third party.

Though EV battery and [energy storage system](#) is significant to our green growth, Delta Thailand and its subsidiaries in India and Slovakia has no production of any type of the mentioned batteries which cobalt is required. All the battery has source from our

[associated company' in Taiwan with Japanese technologies](#) where major minerals like cobalt and copper has sourced from standard suppliers China. These suppliers have committed to our associated company's Conflict mineral policy as part of ESG screening of new supplier agreement. While Delta and its business partner keep investment in research and development substitutional mineral, the parties has [develop](#) the battery's efficiency, containers and product variations for longer lifetime to optimize the consumption of natural resources.

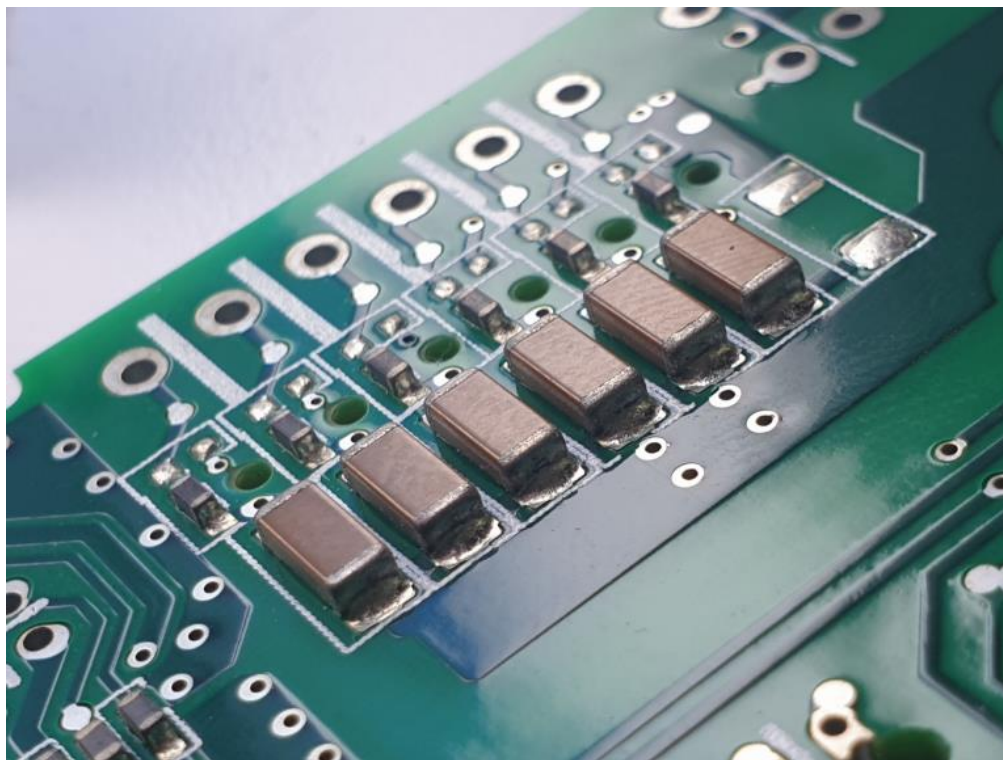
### Environment related risk

The company has introduced the IECQ/QC080000 Quality System and promotes a Green Product Management (GPM) system. We implemented the IECQ based on the risk classification of materials and the Green Supply Chain based on the following principles:

- A supplier must have total compliance with local statutory regulations and define its own risk control mechanism.
- A supplier must set up environmental protection, staff health and safety. The supplier must be hazardous substance free (H-F).

A supplier must follow relevant Delta Thailand's standards on managing environment-related substances (such as [10000-0162 Management Standards for Environment Related Substances](#)). The company also leverages the GPM system as a shared platform of environmental information in the supply chain. Delta relays the most recent international environmental requirements, such as the latest controlled substances of EU's RoHS 2.0 and REACH SVHC, to all supplier partners on the platform





## Material availability against the outbreak and climate change

Global Multi-layer Ceramic Capacitor (MLCC) Shortage has been emerged in electronics and related industries since 2019 and getting worse with COVID-19 pandemic . MLCC's function in electronic devices is to temporarily charges and discharges electricity. It regulates the current's flow in a circuit and prevent electromagnetic interference between components. Raw materials consumed in the production of mass-produced surface mount passive components are usually made from transition metals, post-transition metals and some rare earth element.

Climate change, and rapid rising demand of technological products that affect the limited availability of these element and oil tighten the capacity MLCC manufacturers. In addition, ramp-up demand of MLCC in automotive and ITC industry caused high completion with big players in technology market to get sufficient supply for production. In addition, the outbreak in 2020, distanced the mining worker and the advance technology workers from their workplace and normal production process. The same issues repeated to capacitor market and worsen global supply chain of tech sector.

The pandemic also brought an immediate change on global labor, health and safety, and cross-border policies. These changes severely disrupted global logistics, container utilization cycle and again, led to material shortage. This event highlighted the significance of our effort to localize suppliers, manage the consignment procurement and logistics modal shift management. Among the global lockdown and port recession.

In addition to plan for longer lead-time, close monitoring, seek for alternative source and more frequent supplier engagement, our Component Engineering team has assigned to downsize MLCC and capacitor component to optimize the natural resources consumption. Simultaneously, we utilize our global operation network to engage their local cross-border and courier suppliers. Optional routes and courier path connection had carefully planned to mitigate the delay of material and finished goods delivery.



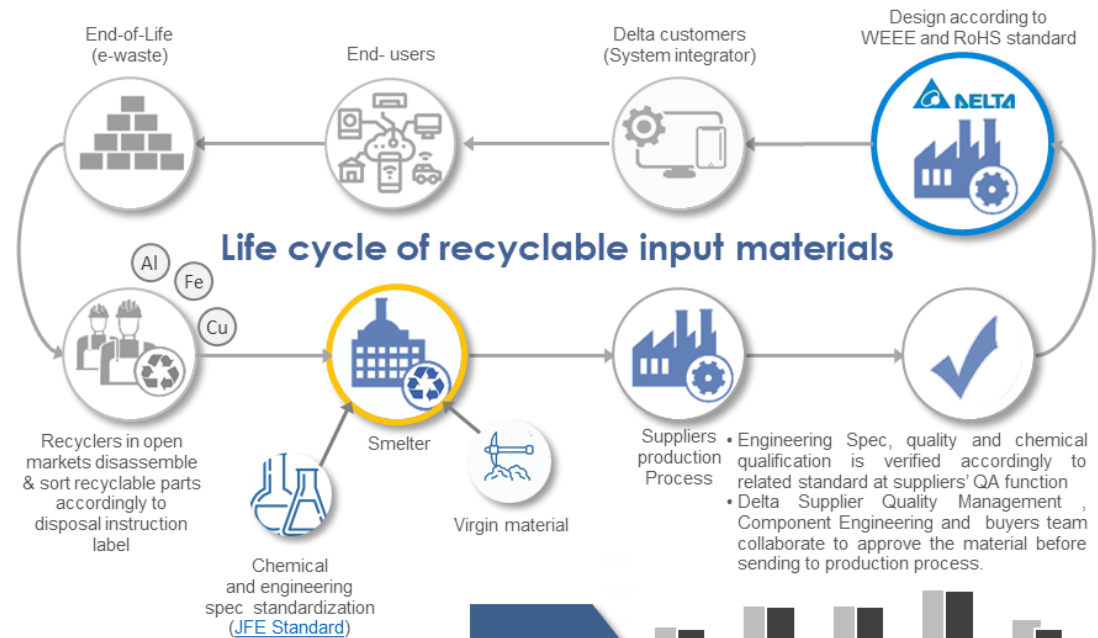


In spite of takeback program for close-loop recycling, Delta reduce impact to natural resources through close loop recycling. Since Delta is 100% export company, take back program will double total variable cost (eg. people cost, shipment cost, customs process cost) and GHG scope 3 for both Delta itself and our customers. To ensure 80% recyclable part & component as WEEE requirement will be utilized, in 2019, Delta has conducted circular economy session as part of Delta Annual Business Partner event to encourage our supplier to use and disclose the percentage of recycled input material in their process. In the same session, we communicate the cost effectiveness and the new business sector resulting from circular economy practice and disclosure. However, due to 2020 Covid-19 pandemic, the dialogue of circular economy between Delta and our suppliers had decelerated for a while.

From the supplier self-declare process and solder dross recycling project result reported to Operation Vice President, Delta realized that 6,610 tons of recyclable material had used by our suppliers in their production process. This 6,610 tons account for 29% of our purchased recyclable materials in 2020 without any impact on material cost, quality and technology investment cost. This volume of recycled input material was used as direct material for conversion to our product.

Regarding packaging material, 100% of our wooden pallet made of 4% of our packaging material had produced from recycled compositions. These packages of 100% of our products shipped world-wide last year. From this outstanding result, it is discussed among Sustainable development, Component engineering and purchasing function to seek for further possibility to add allowed percentage of recycled material in to supplier's certificate of conformance (COC).

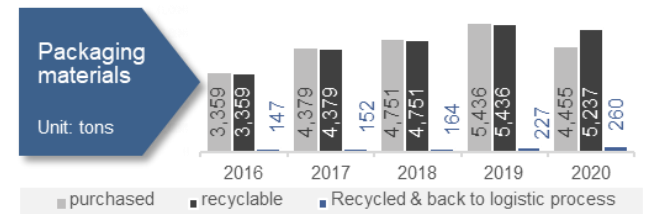
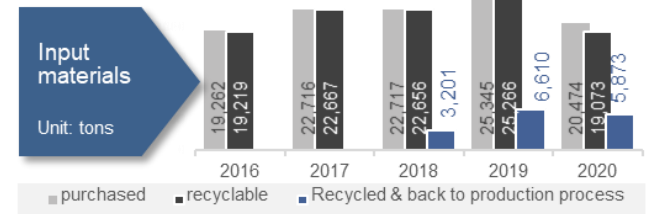
Since 2015, Delta cooperates with major processing factories to reuse packaging materials such as expanded polyethylene (EPE-used as filling packaging) and paper etc. Delta recycles up to 71% of the packaging materials for mechanical products and 30% of packaging for non-metal product.



**29%** of total purchased material

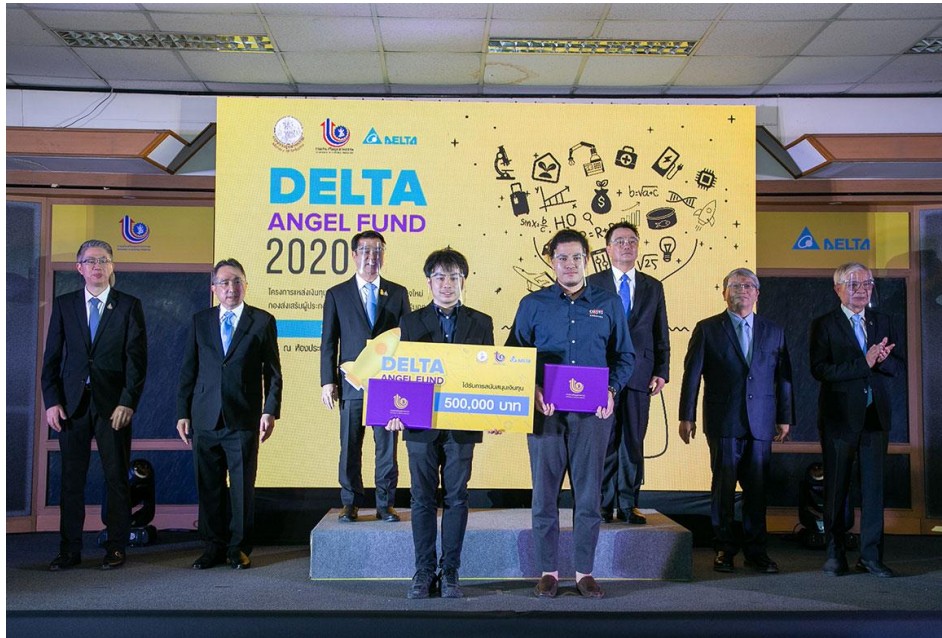
produced with certain ratio of recycled materials at our suppliers' manufacturing sites.

- Calculated from supplier self-declared percentage of recycle material used at supplier's next tier suppliers.
- In 2020, Delta realized 3 types of metal material which made of a certain percentage of recycled raw material. We plan to verify the weight of recycled material of another type of metal in 2021.



- Total packaging material include filling material for goods shipment.
- Total weight of recycle packaging material calculated from the percentage of recycled tissue/ fiber used to produce the packaging.





## Boost up SMEs' innovation

Delta Electronics (Thailand) PCL. and the Ministry of Industry's Department of Industrial Promotion (DIP) today announced the winners of the Delta Angel Fund for Startup 2020 at the Office of the Ministry of Industry. At the awards ceremony, Delta Thailand awarded the 30 prize-winning Thai startup teams a combined total of 3.2 million Baht in corporate sponsorship funds.

Mr. Jackie Chang, Delta Thailand President, joined the Minister of Industry, Suriya Juangroongruangkit, to award the Delta Angel Fund for Startup certificates and Delta's corporate sponsorship funds to 10 top prize-winning teams and 20 participation prize-winning teams. Delta awarded each of the 10 First, Second and Third Prize teams 500,000 Baht, 300,000 Baht and 100,000 Baht in sponsorship funds respectively. Delta also awarded all the 20 Participation Prize teams 20,000 Baht each in sponsorship funds.

Besides the sponsorship funds, Delta supported all participating teams in the Delta Angel Fund for Startup 2020 throughout the year with technical and business training to develop their business proposals for automation and energy-saving innovation. First prize winners included the Chosen Energy team, which developed an electric vehicle charging platform for big data management and Coxsys Robotics, which developed an app-controlled COVID-19 sanitation robot.

Since 2016, Delta has worked with the DIP at the Ministry of Industry to foster entrepreneurs and startup talent in Thailand. Delta Angel Fund for Startup aims to encourage young Thai entrepreneurs to establish business models that leverage advanced technology and develop useful products for commercial use. Over the past five years, over 650 teams have passed the application stage to enter the Delta Angel Fund for Startup. Among them, 158 teams have won funds from Delta for their startup projects creating outstanding economic value of over 500 million Baht.

Throughout the COVID-19 crisis, Delta continues to support Thai enterprises and nurture local talent. The Delta Angel Fund for Startup is a key part of Delta's many collaboration projects with the Thai government and top educational institutions which demonstrates its contribution to Thailand's new normal recovery, Delta's supplier localization effort and aligns with the company's brand promise: Smarter. Greener. Together.



## Next step to carbon reduction

From our latest study of product carbon footprint, the biggest portion of CO2e in our product was from raw material supplied to our production process. In 2019, We communicated our intention to reduce greenhouse gas by optimize electricity consumption and renewable energy solutions to our suppliers. In addition, we highlight the correlation of energy saving to operation cost saving an additional business opportunity in green business to our suppliers.

To help our supplier to reduce greenhouse gas scope 1 and scope 2, our HQ's implement its policy to track supplier's development in energy consumption. Delta Thailand is under process to prepare online communication platform and training sessions. We target to get voluntary suppliers to join this Energy Data Disclosure Program by 2023.

For GHG scope3, major global distribution centers cooperate with logistics providers to implement transportation cost optimization, consolidated delivery, full-truck load, packaging design, container packaging and selection of optimal delivery routes. Since Delta attained [ISO/IEC 27000 Information Security Management System \(ISMS\)](#), we encourage our suppliers to utilized e-invoice and e-document as much as possible to save natural resource and mitigate greenhouse gas from distance transportation.

### Business matching event for new normal recovery

Delta Electronics (Thailand) PCL. and the Thailand Board of Investment (BOI), collaborated to support Thai suppliers by holding a business matching event at Delta's Bangpoo headquarters. The event aimed to match Delta Thailand with qualified Thai vendors and suppliers and seek opportunities for collaboration to support Thai businesses. This initiative is part of

the Industry Linkage Development Division's new E-Linkage campaign under the BOI to support Thailand's economic recovery and Thai manufacturers facing new normal era challenges.



Mr. Jackie Chang, Delta Thailand President, thanked BUILD for their support and welcomed ThaiSubcon with the 50 qualified Thai vendors and suppliers who joined the event after vetting by BUILD. The participating vendors and suppliers could freely discuss ways to leverage collaboration and explore to new possibilities with Delta.

Delta manufacturing managers then took the delegation on a tour of the highly automated Delta Smart Manufacturing (DSM) production lines. At the showroom, Mr. Kasemson Kreuatorn, Delta's Senior Regional Manager for Industrial Automation, presented Delta's unique Industrial Internet of Things (IIoT) solutions which use DIACloud communications, control and field devices for factory processes and building management.

After explaining Delta's products and manufacturing development plans, Delta invited the Thai vendors and suppliers to explore four booths in the company lobby. Each booth showcased specification details and requirements for industry-specific areas in Delta's local manufactured products and parts open for local partner support.

Delta Thailand's procurement and manufacturing management then invited 12 participating companies to continue discussions. The business matching meetings took place between each of the four Thai industry sector groups and respective Delta management.

As a major Thailand-based manufacturer and solutions provider, Delta works with the BOI and Thai research and industry partners to develop local solutions which protect medical personnel during the COVID-19 crisis. Delta welcomes local partnership as it leverages its industrial automation and ICT infrastructure solutions to support Thailand's economic recovery in the new normal.



"I decided to join Delta Angel Fund program because it's an original initiative and an excellent platform to expand development on EVen to include Delta's world-class EV charger models that match the Thai consumer's needs perfectly."

Our stakeholder says

**Mr. Worapoj Ruenrengwong**  
CEO and Founder of Chosen Energy and winner of the Delta Angel Fund for Startups 2020





# A greener process

The re-occurrence of Thailand's pollution in 2020, broadly reminded the business sector to reduce negative environmental impact and place global climate change risks as a top focus. Delta's founding mission is "to provide innovative, clean and energy efficient solutions for a better tomorrow". Without significant change in our operating locations and supply chain, our company carried out our eco-efficient operation and continuous efforts in reducing our business' environmental impact. Our group-wide environmental policy published on our website shows our sincere effort and partnership as a global citizen to make a smarter and greener future.

## 2020 Major contributors to Delta's consolidated revenue



**98%** of Delta consolidated revenue has contributed by our major sites in 3 countries

Source of Energy



nuclear    renewable    Coal & Natural gas

Type of grid operator



Government    Private

Green building certification



### Slovakia



Dubnica nad Vahom  
 Production area : 10,250 sq.m  
 No. of workers : 245  
 Production line : 21 lines  
 Actual production : 65% of full capacity



### India



Rudrapur Plant  
**Sector - 5, SIDCUL Industrial Area**  
 Production area : 14,807 sq.m  
 No. of operators : 216  
 Production line : 11 line  
 Actual production : 30% of full capacity

Gurgaon Plant  
**Sector - 35, HSIIDC Industrial Area**  
 Production area : 3,701 sq.m  
 No. of operators : 65  
 Production line : 6 lines  
 Actual production : 48% of full capacity



### Others

Subsidiaries of Delta Thailand's where their business nature are sales & service offices and research and development centers located in Australia, Austria, Brazil, Czech, Finland, France, Germany, Italy, Myanmar, Netherlands, Poland, Romania, Russia, Singapore, Slovakia, Spain, Sweden, Switzerland and USA.

### Thailand



No. of workers : 9,392

**Plant 1**  
**Bangpoo Industrial Estate**  
 Production area : 14,084 sq.m  
 Production line : 12 lines  
 Actual production : 80% of full capacity

**Plant 3**  
**Bangpoo Industrial Estate**  
 Production area : 15,752 sq.m  
 Production line : 60 lines  
 Actual production : 80% of full capacity

**Plant 5 (HQ)**  
**Bangpoo Industrial Estate**  
 Production area : 44,308 sq.m  
 Production line : 61 lines  
 Actual production : 85% of full capacity

**Plant 6:**  
**Wellgrow Industrial Estate**  
 Production area : 22,456 sq.m  
 Production line : 74 lines  
 Actual production : 80% of full capacity



- Delta major operation sites are in well-management Industrial parks
- These major sites had certified ISO 50001, ISO 14001, ISO 14064-1 and ISO45001

# 23.99

2020 GHG Intensity (scope 1+2) tons CO2e : MUSD production amount.

**1,360**  
GHG Scope 1: tons CO2e

**42,160**  
GHG Scope 2: tons CO2e

**95,149**  
GHG Scope 3: tons CO2e

Electricity intensity Reduction accumulated Since 2015-2020 (base year 2014) **41%**

**9,596**  
Solar energy internal use: MWh

**9,779**  
Reduced energy consumption from energy saving projects: Gigajoule

**84,081**  
Total electricity purchase: MWh

The company extended GHG inventory scope to the full coverage of manufacturing sites (Thailand/India/Slovakia) since 2017. The cases show here is covered 100% of manufacturing sites



## Plan with awareness

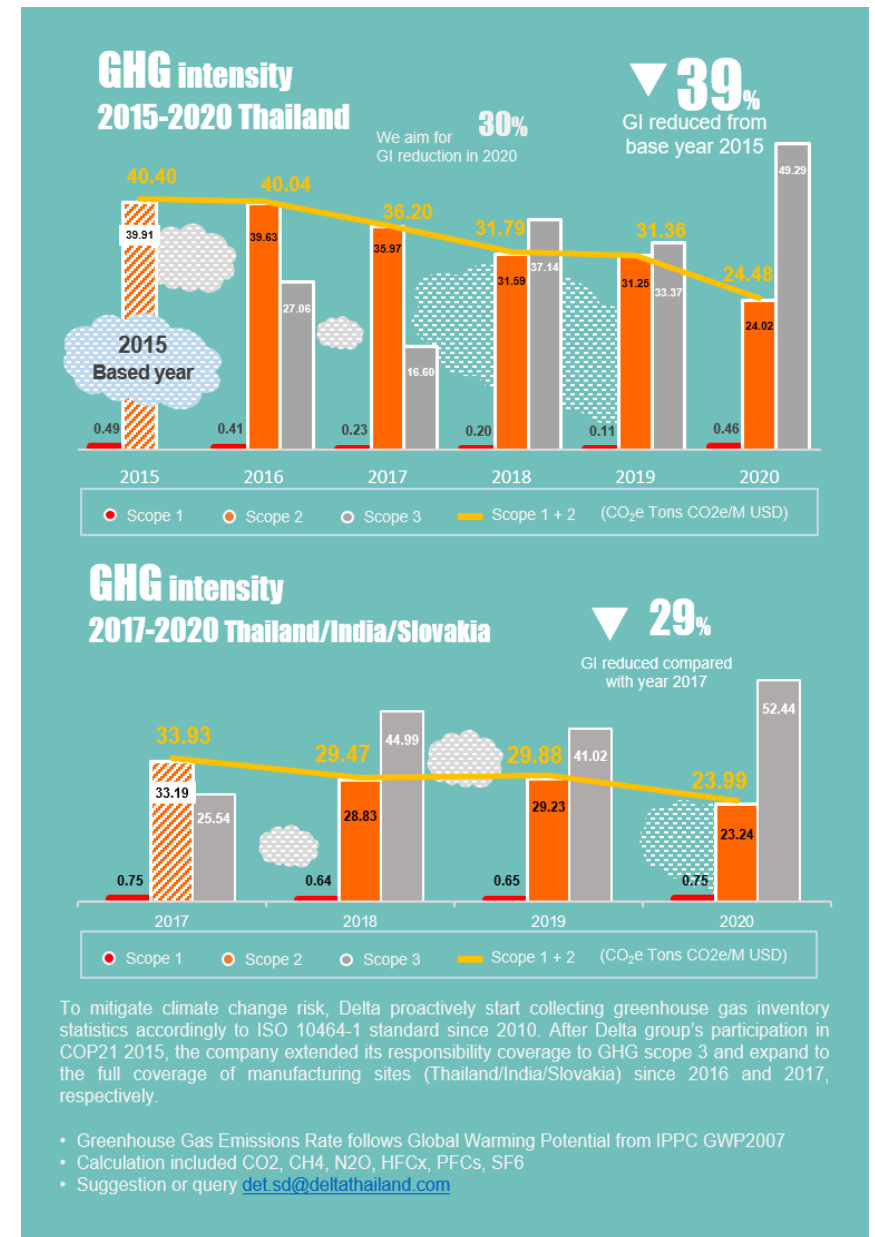
To ensure our eco-efficient operation creates positive impact on climate change, one of Delta's significant emerging risk is natural resource scarcity and the biggest threats to our society, Delta aligns with the Carbon Disclosure Project guideline to provide concrete measures to continuously implement energy management to improve our energy usage efficiency while reducing carbon emissions.

In 2009, Delta started to collect data on greenhouse gas (GHG) emissions, both direct and indirect and reported our progress on the website of Standard for Quantification, reporting greenhouse gas emissions and removals (ISO14064-1: [Thailand/India/ Slovakia](#)) in 2010 - 2020. The [GHG Inventory](#) has disclosed on Delta Thailand's website to show our GHG performance for Thailand's sites. In addition, our relentless pursuit of a sustainable business model drove us to submit our [disclosure on climate change](#) related questionnaire to CDP for the first time in 2016.

Delta included our GHG scope 3 to our report in 2016 to expand responsibility throughout our supply chain and fully covered subsidiaries India and Slovakia in 2017-2020 which the GHG inventory reports for each location are issued retrospectively. At our Thailand's sites, the direct emissions (Scope 1) of 2020 were 764.48 tons CO<sub>2</sub>e, indirect emissions (Scope 2) were 39,779.41 tons CO<sub>2</sub>e and other indirect emissions (Scope 3) were 81,628.38 tons CO<sub>2</sub>e separately. For the full coverage of manufacturing sites (Thailand/India/Slovakia), direct emissions (Scope 1) of 2020 were 1,359.72 tons CO<sub>2</sub>e, indirect emissions (Scope 2) were 42,160.33 tons CO<sub>2</sub>e and other indirect emissions (Scope 3) were 95,149.07 tons CO<sub>2</sub>e. For transparency in environment management, Delta discloses all environmental indicators in "[Sustainability in numbers](#)".

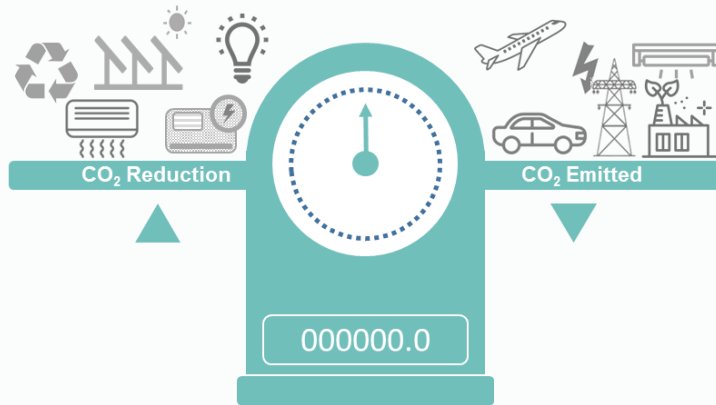
Delta's emissions disclosure had validated by an independent assurer to ensure data accuracy and transparency. Our goal in 2020 was to reduce 30% GHG intensity per 1 million USD production amount, latest statistics shows that the GHG intensity (Thailand's sites) of 2020 (scope1+2) was 24.48 tons CO<sub>2</sub>e/ M USD, a decrease of 39% from our base year 2015. In additional, GHG intensity of 2020 (scope1+2) was 23.99 tons CO<sub>2</sub>e/ M USD, a decrease of 29% from 2017 (compared with the same database of full coverage in 2017). Our next challenge is our target to reduce 20% of GHG reduction intensity within 2025 compared with a new base year 2020.

Standards, methodologies, assumptions, and/or calculation tools used, source of the conversion factors used, and third party assurance for all reported greenhouse gas inventory is available at <https://deltathailand.com/en/greenhouse-gas-inventory-report>



Our RE Goal  
▲ 35%

Increasing Renewable Energy Intensity  
from 2020 base year by 2025



### EE: Energy Efficiency

- Energy Efficiency Improvement from lightings from T8 to T5 ; T8 and Sodium to LED: accredited 427 tons CO<sub>2</sub>e
- Energy Efficiency Improvement at Delta Bangpoo through Chiller Replacement: accredited 2,880 tons CO<sub>2</sub>e
- Energy Efficiency Improvement at Delta Wellgrow through Chiller Replacement: registered and proceeding

### AE: Alternative Energy

- Solar PV project at Bangpoo sites: accredited 836 tons CO<sub>2</sub>e
- Solar PV project phase 2 at Bangpoo sites: accredited 1,529 tons CO<sub>2</sub>e
- Solar PV project phase 3 at Bangpoo sites: registered and proceeding
- Solar PV project phase 3 at Wellgrow sites: registered and proceeding
- Solar PV project at Bangpoo sites: registered and proceeding

## Carbon Neutral Initiatives by 2025

The Thailand Voluntary Emission Reduction Program (T-VER) was launched in 2013 by the Thailand Greenhouse Gas Management Organization (TGO) as a project-based voluntary scheme to encourage GHG reduction and promote the carbon market in Thailand. The scheme is harmonized with international standards, ISO 14064-2 and ISO 14064-3. A carbon credit can be traded in the domestic carbon market. Delta has been participating and registering in T-VER since 2014. There are total 8 projects had been registered in T-VER and it is proximately accredited 5,600 tons CO<sub>2</sub>e carbon credits that had been reduced from those projects. (Please refer to: <https://tinyurl.com/m75pvxh3>)

Recently in 2021, Delta group (Delta Electronics, Inc., its subsidiaries including Delta Electronics (Thailand) PCL.) have joined the RE100, a global initiative bringing together the world's most influential businesses committed to 100% renewable electricity (please see more detail: <https://www.deltaww.com/en-us/news/14986>) which DET has set the target 35% of increasing renewable energy intensity by 2025 compared with base year 2020.



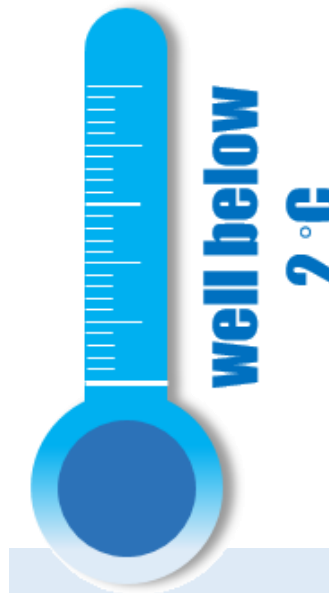


## Do more with less

Climate change threatens all industries with far-reaching impacts on power system design, markets and operations. From our close monitoring of the Greenhouse Gas Inventory Report, Delta realizes our potential to mitigate climate change impact by reducing our greenhouse gas and related environment footprint in our daily operation. The Paris Agreement's long-term temperature goal and the Science Based Targets initiative (SBTi: <https://sciencebasedtargets.org/companies-taking-action>), aims to keep the global average temperature increase to well below 2°C. Thailand's recent pledge in the last COP21 is to reduce CO2 emission by 20-25% by 2030 and the national aim at integrating with an energy strategy plan according to the Thailand Ministry of Energy Integrated Energy Blueprint (**TIEB**) uses 5 integration master plans; PDP (Thailand Power Development Plan), **EEDP** (Energy Efficiency Development Plan), **AEDP** (Alternative Energy Development Plan), GAS (Natural Gas Supply Plan), Oil (Petroleum Management Plan). To respond to the circumstances of climate change and align with strategic energy plans, Delta conducts feasibility studies and applies green technologies to improve our own process efficiency and energy saving together with increasing our alternative clean energy sources usage. This helps to suppress our GHG emissions with smarter and greener operation and will enable mutual benefits for Delta, stakeholders and the world's environment.

### Target achievement and moving forward

To address the changing and challenging contexts ahead, Delta set an energy intensity reduction target of 30% within 2020 compared with the base year of 2014. This maintains a balance between financial cost and benefit with the potential environmental impacts in the future. In 2020, Delta achieved an accumulated energy intensity reduction of 41%. The next challenge is our target to reduce 20% of energy intensity within 2025 compared with a new base year 2020 and increase the renewable energy ratio to 35% within 2025. Delta annually participates in the assessment of energy management which reports directly to the Department of Alternative Energy Development and Efficiency Ministry of Energy of Thailand. Since 2015 -2020, Delta has steadily implemented energy conservation projects which resulted in less electricity consumption compared by production amount /MUSD (energy intensity) in the mid of the project timeline with the increasing utilization of clean energy via our solar rooftop. In 2020, Delta consumed non-renewable energy 87,185.46 MWh which is equal to 313,867.66 gigajoules and 9,596.06 MWh of renewable energy or 34,545.83 gigajoules. Our non-renewable energy intensity/ MUSD and renewable energy intensity were 48.05 MWh/MUSD and 5.29 MWh/MUSD respectively.

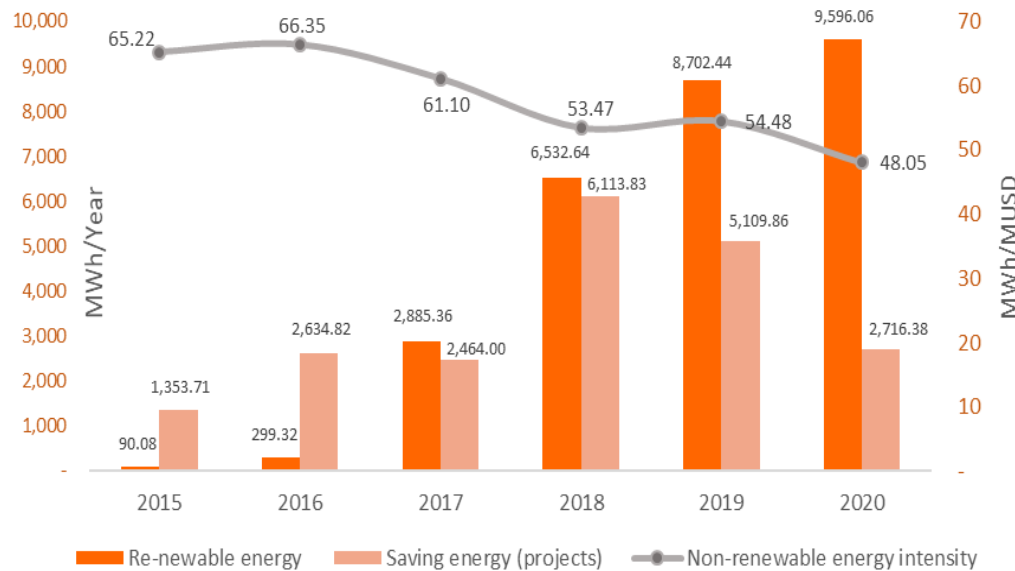


### Refrigerant replacement

Delta keeps tracking its ozone depletion substances (ODS) based on the IPCC2007 methodology. According to the UNEP initiative, Delta uses HCFCs to replace CFC to decrease Ozone Depletion Potential. Therefore, during the HCFCs lifecycle, only about 1-10% of CFC-12 is emitted to Ozone. According to the company's 2015-2020 GHG Inventory report, OSDs include Chlorofluorocarbons (CFCs), Halon (CBrF<sub>3</sub>), Carbon tetrachloride (CCl<sub>4</sub>), Methyl chloroform (CH<sub>3</sub>CCl<sub>3</sub>), Hydrobromofluorocarbons (HBFCs), trichlorofluoromethane (CFC-11) equivalent), Hydrochlorofluorocarbons (HCFCs), Methyl bromide (CH<sub>3</sub>Br), and Bromochloromethane (CH<sub>2</sub>BrCl) as defined in the 'Montreal Protocol' was not produced, imported or exported by Delta.

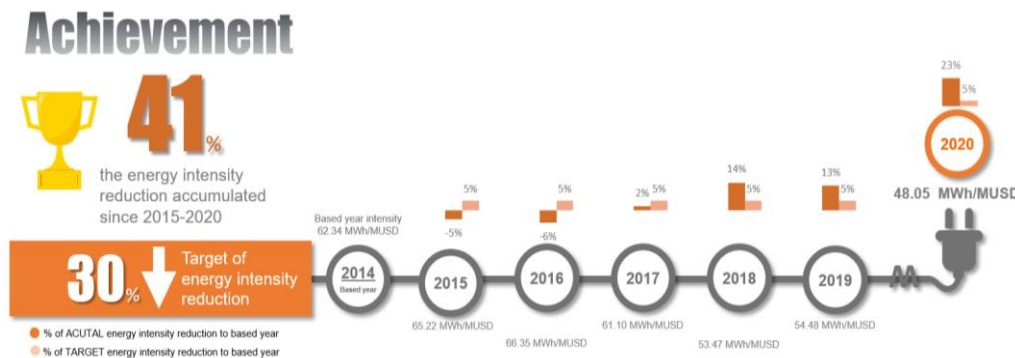


## Technological innovation for improving the efficiency of energy & tracing clean energy in 2020




Delta Electronics (Thailand) Public Company Limited and its subsidiaries (in India and Slovakia) use electricity as a main power and fuel to operate our business. These are non-renewable energy sources and lead to GHG emissions in scope 1 and 2. Performing our company's activities while reducing greenhouse gas emissions effectively aligns with our company's core mission. Delta has gradually invested in innovation and technology to achieve our goal of reducing energy use and greenhouse gas emissions according to our production amount. This technology helps us to reduce energy consumption and promote innovative and efficient use of clean energy, along with reducing greenhouse gas emissions as stated in our mission "To provide innovative, clean and energy-efficient solutions for a better tomorrow".

We also implement and certify our company's energy management system in our operations according to the ISO140001 and ISO50001 standards to ensure continuous improvement through appropriate measures. In 2020, our energy saving projects with the assessment of Energy management, were reported to the Department of Alternative Energy Development and Efficiency Ministry of Energy of Thailand and showed our total of reduced energy consumption was 9,778,964.40 mega joules which mean our GHG emission reduction was 1,626,024.47 kgCO<sub>2e</sub> per year. Delta Electronics (Thailand) PCL. also received the Prime Minister's Industry Award 2020 in the Energy Management award category in recognition of excellence in energy saving and renewable energy (Please see more details in <https://tinyurl.com/t38jmrsw>). We also won the [ASEAN Energy Award 2020](#) in Large Industry Energy Management Category. These awards demonstrated Delta as a role model for factories, buildings and individuals that demonstrate responsible use of energy resources for sustainable development.




# Energy Saving projects 2020




**42.3%**  
Smart Energy Recycling System (SERS)

- Delta implemented Smart Energy recycle System (SERS 3,300 and 850 w) in the production process. The usability testing for Delta's products caused energy loss and high temperature in the working area that affected the air conditioning system. The SERS System installation saves 80% of electricity from usability test loads.
- Reduced energy consumption** 4,136,832 MJ per year
- Monetary saving** 130,642.27 USD per year
- GHG reduction** 687,863.232 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement.
- Energy saving =  $A * \Delta KW * (hly)$
- A = set of equipment
- KW= Testing power usage (reduce up to 80%)
- hly = hour per year




**6.3%**  
Inverter installation for efficiency of Chiller.

- Delta installed inverter at Condenser Water Pump motor (CDP) to improve the energy and performance efficiency of Chiller.
- Reduced energy consumption** 620,424 MJ per year
- Monetary saving** 19,667 USD per year
- GHG reduction** 103,162.72 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement
- Energy saving =  $\Delta KW \times QTY \times \%LF \times (hly)$

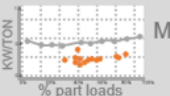


**14.8%**  
AHU's coil Replacement


- Replacement of Air Handling Unit Area (AHU)'s coils to improve the efficiency of the heat exchange between air and water.
- Reduced energy consumption** 1,451,815.20 MJ per year
- Monetary saving** 46,017.09 USD per year
- GHG reduction** 241,404.61 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement.
- Energy Efficiency Ratio :  $TR = TR2 - TR1$
- TR = Chiller efficiency (KWR)
- Chp1 =  $En1/TR1$  (Chp1 : AHU power usage)
- Energy saving:  $En = (Chp1 * TR2 * QTY) - (Chp2 * TR2 * QTY)$



**4.1%**  
Part Load Efficiency of Magnetic chiller




- Delta changed operation chillers (magnetic chiller) into Part Load Efficiency: after the experiments and measurement found the chillers operating at partial load is the most efficient operation mode for various applications with optimizing load control by VFD motor)
- Reduced energy consumption** 400,618.8 MJ per year
- Monetary saving** 12,699.33 USD per year
- GHG reduction** 66,614 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement.
- Energy saving = kWh1 - kWh2
- KW = Power consumption of Chiller load cooling tower




**13.8%**  
Installation Cooling tower 500 RT and 725 RT

- Replacement of cooling tower 500 RT and 725 TR in order to reduce energy consumption in air conditioning systems.
- Reduced energy consumption** 1,350,720 MJ per year
- Monetary saving** 265,368.41 USD per year
- GHG reduction** 224,594.72 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement
- Energy saving =  $\Delta KW \times (hly)$
- KW = Power consumption of Chiller land cooling tower




**0.9%**  
Installed insulation on Infrared Ovens (IR ovens)

- Replaced old existing motors (IE1) at cooling tower and exhaust with a high-efficiency motors 7.5 kW (IE3). These new motors have highly effective current technology to improve energy efficiency.
- Reduced energy consumption** 83,984.40 MJ per year
- Monetary saving** 2,659.76 USD per year
- GHG reduction** 13,964.74 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement
- $kWh1 = kWb \times hr \times d \times A \times OF$  (Operating factor)
- EB = kWh1 x CE
- EB = kWh2 x CE
- EB = electricity usage per year
- CE = monetary (bah/ B/ kWh)
- Energy Saving = kWh1 - kWh2




**9.9%**  
Cleaning chiller's condenser tubes

- Cleaning chiller's condenser tubes to remove slag deposits in condenser's tubes which leads to scaling, corrosion and reduce heat exchange though the system.
- Reduced energy consumption** 967,680 MJ per year
- Monetary saving** 30,570.80 USD per year
- GHG reduction** 160,903.68 kgCO<sub>2</sub>e per year
- Measurement Method : Using power meter for measurement before and after improvement.
- TR = Chiller efficiency (KWR)
- TR =  $[(500 * GPM * 9TR - TS) / 12,000]$
- ChP = HVAC performance (kWTR)
- Chp = KWTR
- Energy Saving =  $(ChpO - ChpN) \times TR \times OF$  (Operating factor)




**2.7%**  
adjusted the set point 7.1 bar to 6.5 bar to reduce the energy losses.)

- Delta adjusted the set point at Air compressor from 7.1 bar to 6.5 bar to suit the loading according to equipment specification requirement to reduce the energy losses.
- Reduced energy consumption** 265,356 MJ per year
- Monetary saving** 8,295.23 USD per year
- GHG reduction** 44,122.81 kgCO<sub>2</sub>e per year
- Measurement Method : Using power meter for measurement before and after improvement.
- Energy saving = kWh1- kWh2
- kWh = Power consumption of Air compressor (kWh/year)



**3.1%**  
Overhauling Condenser water pump

- Delta overhauled Condenser water pump by replacing the old parts; HEAD PUMP, IMPELLER, MECHANICAL SEAL, O-RING
- Reduced energy consumption** 307,004.4 MJ per year
- Monetary saving** 9,730.91 USD per year
- GHG reduction** 51,048.01 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement.
- ER1 (Efficiency of Water pump) =  $Wp1/WE1$
- WE = The power usage while water pump operating
- $\Delta E = \Delta W \times QTY \times \%LF \times H$



**1.0%**  
Installed insulation on Infrared Ovens (IR ovens)

- Delta installed insulation on Infrared Ovens (IR ovens) to prevent heating loss and reduce energy consumption.
- Reduced energy consumption** 92,923.2 MJ per year
- Monetary saving** 2,931.36 USD per year
- GHG reduction** 15,451.06 kgCO<sub>2</sub>e per year
- Measurement Method: Calculate heat loss before and after.
- Energy saving =  $(Qs+Qc) * hly$
- Qs = Q before - Q after
- Q =  $ht \times A \times \Delta T$
- ht = convection heat transfer coefficient 5.6607 W/m<sup>2</sup>
- A = Air conduction of Ceramic 0.324 W/m<sup>2</sup>
- Qc = Qs/COP
- COP = Coefficient of Performance = 6.12 KWR/KW



**1.0%**  
Removed the excess light bulbs in the corridors.

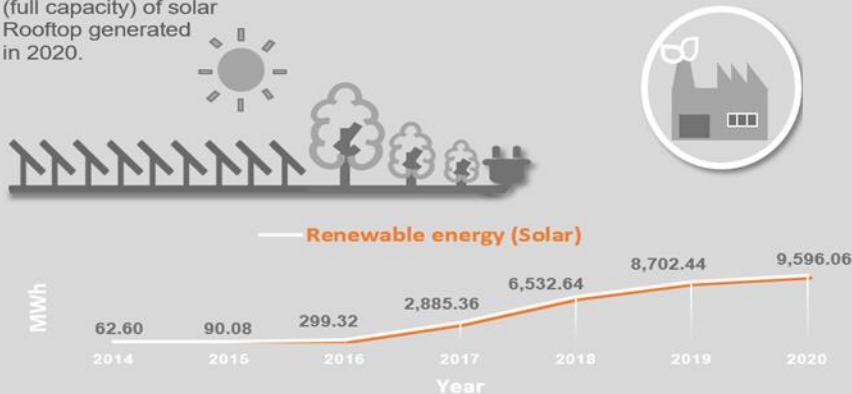
- Removed the excess light bulbs in the corridors.
- Reduced energy consumption** 101,606.40 MJ per year
- Monetary saving** 3,220.85 USD per year
- GHG reduction** 16,894.88 kgCO<sub>2</sub>e per year
- Measurement Method: Using power meter for measurement before and after improvement
- Energy saving =  $(Qs+Qc) * hly$
- P (Watt) = E(Volt) \* I (Ampere) \* total lamps (before/after) \* LF80% (Load Factor)





**9,596 MWh**

(full capacity) of solar Rooftop generated in 2020.



In 2020, we committed to a reduction in carbon intensity by 56.6% by 2025. Through self-generation of solar energy, energy-saving projects and Thailand Voluntary Emission Reduction Program (T-VER). Delta achieved its carbon intensity reduction reached 44.7 % (Thailand's sites) also, the renewable energy contribution in our operations reached 11% in 2020. Through its core competence in energy-efficient power electronics, Delta continues to foster energy-saving solutions and actively contributes to containing global warming below 2 °C.

Apart from our energy saving projects that we have done for many years, our company's sustainable energy activities carry on every year including the "Delta Energy Education Program (DEEP)" for students and "Safety and Energy Week" for our employees to help more people and themselves realize the importance of energy efficiency and energy conservation on their daily life. In addition, Delta also encourages our energy efficient concepts to society through CSR activities as "Angel Fund program" 1 for Startups and "Big Brother project"2 which Delta conducts in collaboration with the Ministry of Industry's Department of Industrial Promotion (DIP). In 2020, participating SMEs presented their business plans / commercial innovation ideas in a pitching events as the competition rules in three areas as follows: 1. Industrial Automation 2. Environmental Conservation by Using Technology with Responsible Energy Use. (Energy Management) 3. Innovation for the future (Innovation). These align well with the Thailand 4.0 goals and Energy's Thailand Integrated Energy Blueprint (TIEB).

In addition to Delta's CSR activities, in early of 2020 [Delta signed an MOU with the Metropolitan Electricity Authority \(MEA\), cementing a three-way partnership between the state utility operator and Nissan in Thailand](https://tinyurl.com/uba49b4x). By signing this milestone agreement we include Delta's electric vehicle (EV) charging solutions across Thailand in the MEA EV Mobile App and offer ultimate convenience to EV users. This collaboration is to prepare EV charging infrastructure readiness for consumers by connecting Delta's EV charger data with MEA's EV charging network, developing the MEA EV Mobile App and educating the public. (Please see more details in: <https://tinyurl.com/uba49b4x>)

Moreover, The Provincial Electricity Authority (PEA), Mitsubishi Motors (Thailand) Co., Ltd. and Delta Electronics (Thailand) signed a Memorandum of Understanding (MOU) for cooperation between the three parties in Electric Vehicles (EV), EV charging stations and the PEA's mobile application. This agreement is supports the development of EV Charging Station Infrastructure in every 100 km on the main transportation routes across the country with a total of 62 EV Charging Stations by 2021 that promotes the use of EVs. (Please see more details in: <https://tinyurl.com/mh6z9x3f>)

**Note:**

1. Delta Angel Fund is the first fund in Thailand created by a private sector in collaboration with the Department of industrial Promotion (DIP). Delta and DIP launched "Angel Fund" for the 5rd consecutive years in 2020. The fund supports new entrepreneurs, SMEs and startup companies to qualify for the fund, a business proposal must fulfill on of the two themes which may be revised annually.
2. Big Brother project is a project that connects Thai SME, small and medium enterprises with large innovative companies to enhance SMEs competitiveness. In 2020, Delta signed MOU with the Department of industrial Promotion (DIP) to join and offer SMEs with the latest automation technology and business advice. (Please see more details in: <https://tinyurl.com/43axszj8>)



# Process Innovation

ZDelta continuously develop its manufacturing process for less material use, decreased energy intensity, lower production waste and provide greener products to customers.

From 2015 – 2020, the Company had accomplished more than 602 automation projects in 6 major potential processes. At the same time, the Company has made a strategic decision to upgrade all Delta factories to "Delta Smart Manufacturing". It is a five-year plan to integrate all manufacturing process digitally with optimum automation rather than just upgrading with single station automation. Such integration aims to enable all data regarding the manufacturing process to be available at any time and in anywhere with IoT platform. Since 2014 when we gradually introduced higher innovative automation processes and robotic arms. The big data collected will be used for predictive analysis to optimize production plan, improve logistic efficiency and enhance machine maintenance process, quality control and many more.

Delta Thailand's overall manufacturing productivity for the factories in 2020 had achieved 14% improvement from the previous year. Our focused investment and effort in process automation and continuous process improvement projects had been the main contributors. 69 majors process with latest automation technologies had implemented to concrete Delta smart Manufacturing line. The rapid deployment of such new processes can be done due to the thoughts and researches put into the concept and implementation phase to ensure disruption on daily production schedule and output will be minimized. Beyond Delta's benefit of stable cost of goods sold, accurately automated process helps to reduce environment negative impact, optimize manufacturing resources and electricity power while our employees' safety had secure from complex and hazardous process .

In addition to process digitalization, Delta has been focusing on Kaizen and ECRS to improve its process efficiency. Annually, Delta group organizes Delta Innovation Awards to drive innovation in its intellectual properties, new product development, manufacturing process improvement and new business model development. In 2020, 47 projects had from Delta's global sites had submitted while 8 teams and 10 individuals granted "The 13th Delta Innovation Award". In Thailand, 1,100 ECRS projects had submitted to eliminate process wastes. The 14 teams of winners had grants monetary and nonmonetary awards. Their projects had adopted to Delta's production process.







**Thailand Plant 5**

LEED Gold



**India Gurgaon Plant**

LEED-INDIA Platinum



**India Rudrapur Plant**

LEED-INDIA Gold

## Green Building Certified

Global warming and rapid urbanization is driving us to seek sustainable solutions while reducing the negative impact of our offices and factories on the environment. Delta's innovatively use of our own solutions to create the first factory in Thailand with the LEED (Leadership in Energy and Environmental Design) certification in the EBOM (Existing Buildings: Operations and Maintenance) category. At Delta Thailand's green headquarters, we save energy and reduce our carbon footprint every day by leveraging solutions in renewable energy, automation, DC motor ventilation, smart HVAC and environment management.

The U.S. Green Building Council (USGBC), one of the most recognized green building certification programs in the world, awarded Delta Thailand headquarters with the LEED- EBOM Gold certification after our year-long renovation project that included evaluation, data collection, construction, equipment installation and initiatives to improve energy-management and environment conditions to meet LEED Green Building criteria.

In 2017, Delta Thailand Plant 5 (Headquarter) in Bangpoo Industrial Estate plans had been certified Leadership in Energy & Environmental Design (LEED) Certified by the U.S. Green Building Council (USGBC) in our existing building: Operations and Maintenance (EBOM) - Gold Level category by renovating the building energy-efficiently. For example, smart air-conditioning, lighting, energy-efficient elevators, avoiding invasion plants in the company's landscape and energy management information systems and solutions which are developed by the company are used. Presently, Delta Thailand is the first manufacturing factory in Thailand which has certified LEED-BOM. Delta is willing to share its experience in energy-efficient building, low-carbon green buildings and green factory-office buildings through the Open House Activity to green building programs. This includes working with local environmental protection groups to promote environmental education programs and the energy-saving ideas of green buildings with the government, school, media, communities and the public.

To ensure sustainable share of renewable energy in the global energy mix, Delta utilizes its expertise in renewable (solar) energy for the energy conservation projects. In Delta's pursuit of replacing conventional energy sources with renewable energy, solar roofs are installed in all the three Thailand factories. All new factories within the group will be built as certified Green building while existing ones will have to work towards the same standard. For example, Delta's Plant 5 in Thailand has attained LEED Gold certification for existing building while India's factories are certified Gold and Platinum.

Discover Delta group's 27 own green building and 5 donated green building at [https://esg.deltaww.com/en/csr\\_GreenBuilding](https://esg.deltaww.com/en/csr_GreenBuilding)





## Smart logistics modal plan

In 2020 Delta face a negative impact resulting from the global disease crisis. As reported by the World Bank's [International Finance Corporation](#), COVID-19 pandemic and global lockdown directly disrupted global supply chains. [Cargo was backlogged at China's major container ports](#), travel restrictions led to a [shortage of truck drivers](#) to pick up containers, and ocean carriers [canceled \(or blanked\) sailings](#). The resulting shortage of components from China impacted manufacturing operations overseas. Major industries around the world, including automotive, electronics, pharmaceuticals, medical equipment and supplies, as well as consumer goods, were affected.

Delta Thailand Logistics function is mainly responsible for transporting domestic and international materials to the production line, delivering finished products to our customers and managing all the relevant parties in the logistic chain in line with the "Green Logistics" approach. Delta is constantly working towards optimizing operations processes and minimizing the harmful impacts to the environment.

With our attempt to be greener and confident in IT security management, Delta has addressed the value of paperless work by sampling check of e-invoice process for outgoing shipment and realize impacts or our practical logistic management as following:

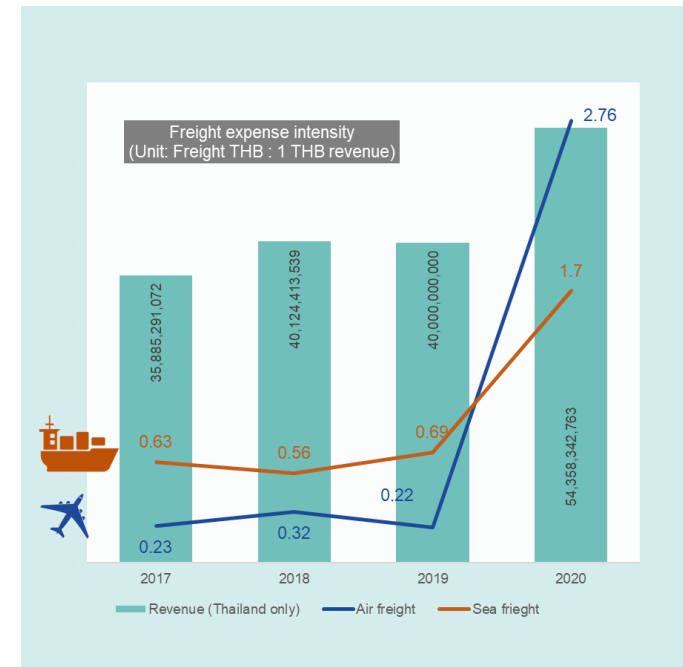
1. Ensure that inbound and outbound shipments are for full truck load (FTL) by loading trucks with as much cargo as possible. By doing this, the number of trips between the production base to port per day is reduced, warehouse cost is saved. Just-in-time production is achieved and minimize empty backhauling.


2. Request freight forwarders at the point of origin to fill containers with freight to full container load (FCL) so that a large amount of shipments can be delivered in one trip without having to waste free space in the container and involve intermodal transport. Delta also encourages suppliers to use durable eco packaging to prevent damage to goods and materials during transport. If products are damaged, Delta is responsible for delivering replacements to the customer, which results in an increased transportation cost.

3. Use major carriers and freight forwarders to ensure high quality service standard and green logistics operations. Not only does our choice of freight counterparts guarantee efficiency in the transportation, it also protects the environment by reducing CO2 emissions.

4. Promote modal shift by using sea freight over air freight as sea freight is more energy efficient and more environmental-friendly.

With the related functions' awareness on environmental footprint from logistic process, Delta can reduce 31% of air freight intensity to its consolidated revenue in 2020. In addition to its effort to reduced transportation environmental footprint, Delta encourage our stakeholder to reduce transportation and paper works in business process by utilized our secured on-line communication platform. IT Security for reliable on-line communication.

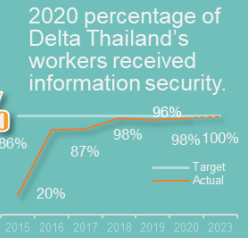




# ISO/IEC 27001:2013 Certified

2020 percentage of Delta Thailand's workers received information security.

## 98%



Year	Actual	Target
2015	20%	100%
2016	86%	100%
2017	87%	100%
2018	98%	100%
2019	98%	100%
2020	98%	100%
2023	98%	100%

Total number of

- information security breaches or other cybersecurity incidents
- information security breaches involving customers' personally identifiable information
- customers affected by company's data breach
- fines/penalties paid in relation to information security breaches or other cybersecurity incident.

0

## PUE

(Power Usage Effectiveness)

# 1.29

of "DeltaInfrasuit" used 7 days 24 hours to securely facilitate our business in Thailand its subsidiaries in 5 countries.

Reliable Information technology helps to reduce greenhouse gas scope 2 and scope 3 in Delta's daily operation.

Power usage effectiveness (PUE) is a ratio that describes how efficiently a computer data center uses energy; specifically, how much energy is used by the computing equipment (in contrast to cooling and other overhead). PUE is the ratio of total amount of energy used by a computer data center facility to the energy delivered to computing equipment.

An ideal PUE is 1.0. Anything that isn't considered a computing device in a data center (i.e. lighting, cooling, etc.) falls into the category of facility energy consumption.

Reliable on-line business process On-line communication among Delta group and its business partners is Delta's effective tool to reduce GHG scope 3 from unnecessary transportation and business trip ; for instance, on-site stock checkup, material flow follow up, order fulfillment status, and design and business-related discussion. Delta strengthens its online operation with Zero data breaches target by acquiring ISO/IEC27001 for its information security management system. In addition to Delta own product and solution utilization, this enables a secure flow of important information to support our customers and suppliers to ensure a sustainable cooperation.

[ISO/IEC 27001](#) is formally specified as an information security management system (ISMS) and includes a range of activities concerning the management of information security risks. It is an overarching management framework taking care of:

1. Assessing the risks inherent to transmitting confidential information
2. Implementing information security measures through development, documentation and dissemination of methods
3. Building a management system to share roles and responsibilities, establishing an internal audit
4. Managing the risk evaluation process, developing countermeasures and understanding exceptions and ongoing improvements

protecting our information is critical for a successful and smooth operation. Four of Delta' BOD members has Information Security knowledge background. The Board of directors has assigned the Chief Information Technology (CIO) to be responsible for overseeing cybersecurity within the company. The CIO will collaborate with Information Security Management Committee, Data Protection Officer, Internal Auditors and report to the President to oversee cyber security strategy at least once a year. As Sustainable Development committee member, the CIO and DPO has requested to share information security performance to the SD committee at least once a year as well.

Though we have no e-commerce activity on our online channel, ensure valuable information security and ethical communication. Delta communicate the [Information security policy](#) on our intranet and online training platform. In addition, to raise employees' awareness on this issue, the company target to conduct 100% IT security training to its employees annually. At our website, data privacy policy, use of the collected information, user's choice of privacy and other privacy related information is available. According to our recent study in reporting period, 99% of user and customer directly access our website and access through well known search engine was protected by Delta's ISO2700. We found 1% of our website users who access our site from a referral source with unclear privacy policy may be at risk. However, up to the report period, there was no confirmed case of breaches of [customer privacy](#) identified leaks, thefts, losses of customer data or misuse of intelligence properties from outside parties or regulatory body to Delta's whistleblowing channels, ISMS and DPO.

On top of transportation reduction, intelligence properties protection, trade confidentiality protection and personal data protection, [Delta InfraSuite](#) help the company to optimize energy consumption. According to [a leading research institute survey](#) of 1,600 data center owners and operators found that 2020's average PUE is 1.67 while Delta's data center performed with 1.29 PUE rate in 2020. This competitive performance finally help the company to reduce GHG scope 2 from IT 7/24 operation where represent approximately 1% of total energy consumption at Delta.

## Ensure natural resources conservation

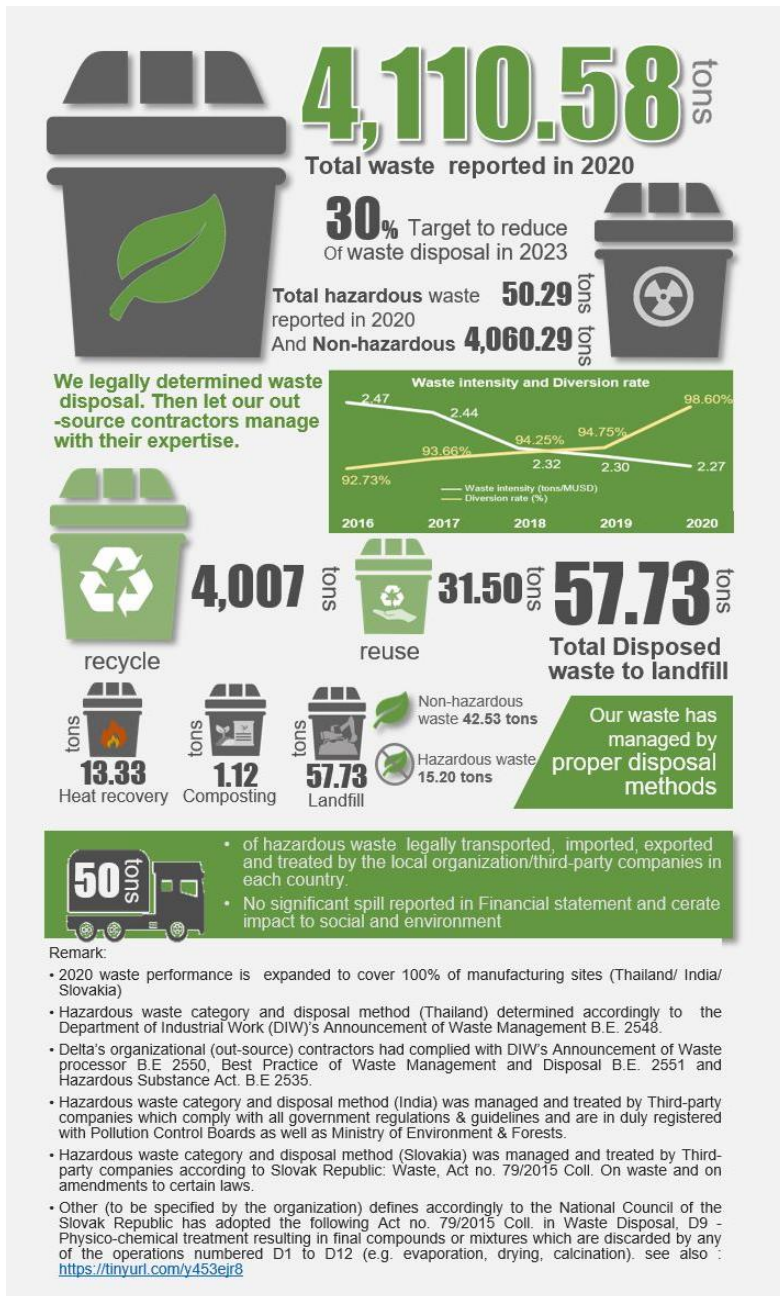
While our stakeholders focus on how we manage our worker health and economic performance, outstanding emergence of pollution and global infectious disease crisis outstandingly raised our awareness of climate change. Global health crisis and strict quarantine measures was not only leading to economies to slow down but also impacted the environment in an intriguing way. During the lockdown across the globes, [air quality in certain regions has improved in recent weeks](#). It can be said that the COVID-19 pandemic offered lessons and opportunities leading to environmental actions.

Delta Sustainable Committee studied the [relationship of climate change to the occurrence of infectious diseases](#). It was found that the changing climate affect the occurrence and existence of various infectious diseases in humans. This study, again, urge us to back to our track to smarter and greener environment management to mitigate negative impact from our operation.

As a public-listed company in Thailand and a global corporate citizen, Delta's commitment to energy-saving and natural resources conservation guide everyone at Delta to a greener lifestyle and practice. We adhered international environment standard such as ISO14001, ISO 14064, ISO 14067 and ISO 50001 to develop our product, process and work environment to be more eco-friendly.







## Waste in Focus

As per Delta's [Management Standard for Environment-related Substances](#), Delta does counter checking our waste management to ensure our stakeholders' and natural resources will stay safe and sound for the long-term. All of Delta's main plants divide waste into three categories: production waste, non - production waste and hazardous waste .Production waste includes metal waste, plastic waste, waste pallets, paper, and paper boxes, which are sorted, collected, and handed over to local qualified recycling businesses.

In 2020, Delta classified 3 metal materials in product components, which are made of a certain percentage of recycled raw material as iron, copper and aluminum which used by our next tier suppliers in 2020 was weighted as 5,873.26 tons and these input material equals to 28.69% of 20,474 tons of total input material, besides the packaging material, 100% of wooden pallet, paper, and paper boxes are also recyclable. General waste (non-production waste) had transported to garbage incinerators, composting, and landfill plants designated by the government by qualified garbage disposal businesses. According to the Department of Hazardous waste includes electronic waste, waste glass tubes and glass, and solvents which are also sorted, collected, and handed over to local qualified waste treatment businesses.

In 2020, Delta reported waste performance according to GRI 306: waste version 2020 covering 100% of manufacturing sites (Thailand/ India/ Slovakia). The waste data (GRI: 306-3, 306-4 and 306-5 version 2020) was disclosed in [2021 Sustainability in numbers](#) page 9. With 2016 based year, Delta targets to reduce 30% of non-hazardous waste (Total disposed waste) in 2023 (5% yearly). In this reporting period, Delta generated a total 4,110.58 tons in waste. Of this, 4,060.29 tons of generated waste were categorized as non-hazardous waste and 50.29 tons was hazardous waste. This included recycled waste 4,006.91 tons, reused waste 31.51 tons, secure landfill 57.73 tons, waste to heat recovery 13.33 tons and composting 1.12 tons was transported to third party located in proper distance to manage. At all these result rise the diversion rate to 98.06% in 2020. (Diversion rate: waste diverted divided by the total amount of waste) . Recycled metal waste in our production process was sent for recycling processing was 1,375.95 tons in 2020 which was 34% of total waste diverted from disposal.

According to the above stated results, non-hazardous waste intensity was reduced 8.70% compared with the base year 2016. At the same time, the accumulated non-hazardous waste reduction intensity from 2016-2020 was 23.73%. Delta set a target for hazardous waste reduction by 5% in 2023 from the base year 2019. The total hazardous waste intensity in 2020 was decreased 5.35% compared with base year 2019.

In addition, Delta is tracking this issue by using waste intensity (waste generation: tons/million USD of production amount) as an indicator, Our waste intensity in 2020 was 2.27 tons per Million USD production amount (tons/MUSD) which decrease 8.15 % from 2.47 tons/MUSD in 2016. As a result, our accumulated waste reduction intensity from 2016-2020 was 22.20%. (Please refer to: [2021 Sustainability in numbers](#) page 6-7 and 9)



## Waste management education and survey

Apart from reducing our company's waste in production process, our domestic waste is also an important issue to focus on.

To embed the responsibility and roles of waste sorting among our employees, in 2020, Delta held a basic training event for waste sorting on 17-18 November 2020. The event was led by the lecturer Dome Boonyanurak the co-founder and CMO of [GEPP SA-ARD](#) and teams to educate company's employees about the 3Rs, proper sorting and other topics related to waste management.

In Addition, Delta also did pre-test and post-test of "Employees Opinion and Fundamental Knowledge on Waste Sorting Activities Survey". The results showed 42% of employees answered all correct in pre-test and after training, the rate was higher at 96%. The winners who answered all correct of waste sorting pre-test and post-test are awarded a gift set of a cloth face masks to prevent from COVID-19.



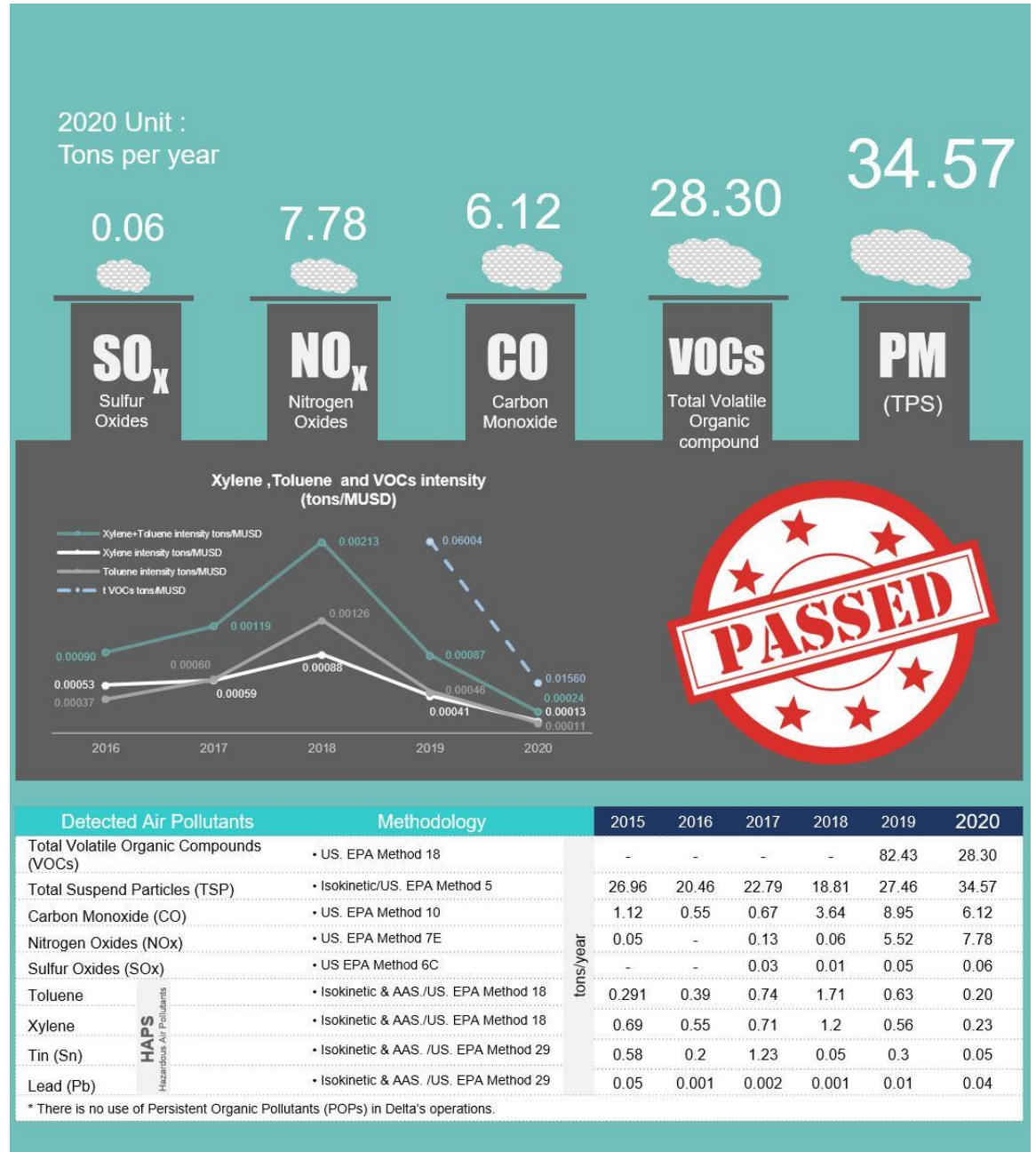


## We emit less

To mitigate environment health and well-being impact on our employee and surrounded community, Delta keeps monitoring our Volatile Organic Compounds (VOCs), Total Suspend Particles (TSP), Carbon Monoxides (CO), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Oxides (SO<sub>x</sub>), Toluene (C<sub>6</sub>H<sub>5</sub>-CH<sub>3</sub>), Xylene (C<sub>8</sub>H<sub>10</sub>), Tin (Sn), Lead (Pb) and other Hazardous Air Pollutions (HAPs) discharged from our manufacturing process. Periodically, the company has carried out air quality monitoring at various stations. This is to make sure the air quality protection and control process is in norm and sufficient to mitigate environmental impact such as surface water quality, underground water quality, and soil quality. Charcoal Tube and Gas Chromatography (GC) /NIOSH, unambiguously and related methodologies have complied for close monitoring. VOCs, TPS, CO, NO<sub>x</sub>, SO<sub>x</sub>, and HAPs control are another way to mitigate impact to healthiness and wellness of the company's personnel's as well as neighbor communities.

Air Emission performance in 2020, Delta reported to cover 100% of manufacturing sites (Thailand/ India/ Slovakia). Delta Thailand, India and Slovakia's emission data reported from the factories' stacks inspection where VOCs, TSP, CO, NO<sub>x</sub>, SO<sub>x</sub> and HAPs had annually/biannually monitored, measured and reported accordingly to their local department of pollution control and [NIOSH standard](#) for each country that Delta operates. To ensure the transparency, accuracy and compliance, Delta's air quality inspection is performed and assured by 3rd party specialist company. Proper methodologies such as US. EPA 5, 6C, 7E, 10, 18, 19 and 29, Charcoal Tube and GC/NIOSH 1501 will be applied to each stationary sources.

Delta's 2020 pollution inspection result ensured all the key parameters met the local standard and regulations. Since 2019, Delta fully performed covering 100% of its manufacturing sites (Thailand/ India/ Slovakia). Delta Thailand's Air emission results has been measuring and monitoring since 2014, Delta India's Air emission results were fully covered since 2017 and Delta Slovakia's Air emission results were covered in 2019.





Since 2015-2018, Delta had indicated VOCs emission as the aggregation of Xylene, Toluene and Isopropyl Alcohol using US EPA Method 18 (This method is designed to measure gaseous organics emitted from an industrial source). No significant chemical spill reported from any location. To acquire the actual total VOCs released from its operations, the company measured total VOCs since 2019 - 2020 and still examined the volume of Xylene and Toluene to further monitoring the progress of VOCs reduction. Additionally in 2020, Delta deeper analyzed in the exact VOCs components and found the dominant VOC from company's air emission was acetone which was 89% of total VOCs. It mainly came from the cleaning agent to remove flux residue for Printed Circuit Boards (PCB) during the heating process and using volatile organic solvents such as or silicone sealants, welding processes and others. Besides acetone, the other components were detected as follows: Methyl Ethyl Ketone (MEK) (3.87%), Methyl Isobutyl Ketone (MIBK) (2.17%), Hexane (1.41%), Ethanol (1.33%), Butanol (1.07%), Ethyl Benzene (0.77%), Xylene (0.65%), Toluene (0.17%) and Benzene (0.17%). This further analysis led to more correct and accuracy for the air emission from stacks. The total VOCs in 2020 was measured as 28.30 tons VOC (t VOC) per year or equal to 0.0156 t VOC/ MUSD per year, xylene and toluene were detected as 0.233 and 0.198 tons/year in 2020, respectively. (The Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions data (GRI: 305-7) was disclosed in [2021 Sustainability in numbers](#) page 6) To mitigate the VOCs emission in its operations, the company has started screening and deduction unnecessary volatile organic chemicals or cleaning solvents which are mixtures of additives of VOCs from the process since 2017 to present.

The VOCs reduction target compared with base year 2016, is to reduce 5% of VOC yearly (30% in 2023 from base year 2016), the intensity of Xylene, Toluene and Xylene + Toluene were plotted graph from 2016 -2020 in tons/MUSD per year. The results showed the intensity of the aggregation of Xylene and Toluene was 73.6% reduction in 2020 compared with base year intensity 2016. Since 2019, Delta started to examine and apply an actual target 5% reduction of VOCs in 2020 instead of the aggregation of Xylene and Toluene which is more accuracy with the actual target for 2020 of 5% reduction t VOCs. The volume of total VOCs in 2019 was detected as 82.43 t VOCs/year (VOCs intensity 0.06004 tons/MUSD per year) then in 2020, it was detected as 28.30 t VOCs/year (VOCs intensity 0.01560 tons/MUSD per year) which decreased from 2019 54.13 t VOCs/year or reduced 74.02% of VOCs intensity compared with base year VOCs in 2019.

Total Suspend particles was reported as 34.57 tons in 2020 and the highest result came from Thailand's sites which was the consequence of the PM 2.5 critical pollution in Thailand 2019. The worst air pollution PM 2.5 was detected as unsafe levels in Bangkok and cities nearby (see also: <https://tinyurl.com/3wpju2yb>). Delta Thailand implemented the preventive measurement of PM/TSP in workplace, every 62 square meters (m<sup>2</sup>) were applied with air purifiers for clean air condition in the workplaces.

Nitrogen oxides, sulfur oxides and carbon monoxides were detected as 7.78, 0.06 and 6.12 tons/year in 2020. Nitrogen oxides, sulfur oxides and carbon monoxides mostly came from testing /using the generators and boilers to generate heat and hot water for domestic purpose. Delta cautiously chose the innovative condensing gas boiler using at its sites. The boiler is designed to run with natural gas which less emission and low NOx, SOx and CO level (see also: <https://tinyurl.com/y6f34kt3>). All Delta's Air emission reports and all related indicators met the air quality standard control regulation/requirements. (Please refer to [2021 Sustainability in numbers](#) page 6)

#### Remark:

- 2020 Air Emission performance fully covered 100% of manufacturing sites (Thailand/ India/ Slovakia). Delta Thailand, India and Slovakia's emission data reported from the factories' stacks inspection where VOCs, TSP, CO, NOx, SOx, Toluene, Xylene, Tin and Lead had reported and all related indicators met these standard requirements.
- Delta Thailand's Air Emission data from stacks had collected and measured accordingly to the Department of Industrial Works' announcement subjects "Standard of air emission discharged from manufacturing factory B.E. 2549" and Thailand Industrial Estate Authority's announcement on "Emission Standard for factory located in Industrial Estate" reference number 46/2541. To calculate the estimation of air pollutants load per year following "Measurement mass balance emission factors engineering calculation" by Pollution Control Department, Bangkok, Thailand. (<http://ptr.pcd.go.th/wp-content/uploads/2020/02/1.-RET-Manual-and-correction-Green-1-1.pdf>)
- Delta Electronics India Pvt Ltd. 's Air Emission data from stacks had collected accordingly to Central Pollution Control Board, Ministry of Environment & Forests, Govt. of India, G.S.R.771(E), 11<sup>th</sup> Dec 2013– Emission Limits for New Diesel Engine up to 800 kW) for Generator Set (Genset) Application and measured methods following IS 11255-1 (1985): Indian Standard Methods for measurement of emissions from stationary sources prescribed by Bureau of Indian Standards. (see also : <https://tinyurl.com/y23cv9my>)
- Delta Electronics (Slovakia), s.r.o. Air Emission data from stacks (NOx , SOx and CO) had collected accordingly to Decree of the Ministry of Environment of the Slovak Republic no. 411/2012 Coll., on monitoring of emissions from stationary sources of air pollution and air quality in their vicinity as amended by Decree of the Ministry of the Environment of the Slovak Republic No. 316/2017 Coll. Others emissions results were calculated emission factors from heat input (Natural gas boilers) using Preferred and Alternative Methods for Estimating Air Emission from Boilers (see also in: <https://www.epa.gov/sites/production/files/2015-08/documents/ii02.pdf>) and [EPA AP-42 Chapter 1.4](#)

# We maintain water security

Water is a precious natural resource and a basic necessity of life. Our company's water management is a matter of interest to our stakeholders. This interest is not only out of concern regarding global change in baseline water and drought severity, but also concerns about chemical contamination to natural water sources from the technology industry. Although water is not our production factor or used in our manufacturing process, our company has taken many measures to conserve clean and accessible water for our local community. Based on Delta's water consumption breakdown, 95% of the water used by Delta's own operation sites for domestic and sanitary purpose (95%). According to our water billing records, municipal water supplied by governmental offices is the main water source for Thailand, India and Slovakia plants.

## Delta 2020 Water Conservation Awareness

 Delta consumes **0.0002 Mio. m3** of water to **create 1 Mil. USD revenue**

### Why we care ?

Nearby river basin

WRI baseline water stress level

Seasonal variability

Flood occurrence

Drought severity

Access to water

Projected change in water stress (Change from baseline to 2020 business as usual )



WRI Risk min 0 - max 5

	Thailand	India	Slovakia	Total
Nearby river basin	Chao phraya River	Ganges River	Elbe River	
WRI baseline water stress level	2-3	4-5	0-1	
Seasonal variability	Yellow	Red	Green	
Flood occurrence	Yellow	Yellow	Yellow	
Drought severity	Green	Green	Green	
Access to water	Green	Yellow	Green	
Projected change in water stress (Change from baseline to 2020 business as usual )	▲ 1.2X	▲ 1.2X	Near normal	



Are you in risky area?

Check out Aqeduct Water Risk Atlas  
<https://bit.ly/2LSq0gu>

### Our Consumption

(Source: figures from municipale water bills and rain water harvestin pond's)

Municipal water (supplied by government)	(m <sup>3</sup> )	343,191	1,590	4,654	349,435.07
-Third-party water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	(m <sup>3</sup> )	275,596	1,590	4,654	281,839.96
-Third-party water (Other water > 1000 mg/L Total Dissolved Solids)	(m <sup>3</sup> )	67,595	0.00	0.00	67,595.11
Ground water (supplied by local government)	(m <sup>3</sup> )	0.00	12,292	3,022	15,313.50
-Third-party water (Freshwater ≤ 1000 mg/L Total Dissolved Solids)	(m <sup>3</sup> )	0.00	12,292	3,022	15,313.50
-Third-party water (Other water > 1000 mg/L Total Dissolved Solids)	(m <sup>3</sup> )	0.00	0.00	0.00	0.00
Rainwater collected directly and stored by the organization (Source: meter)	(m <sup>3</sup> )	4,205	0.00	0.00	4,205
Surface water including water collected from wetlands, rivers, lakes, and oceans	(m <sup>3</sup> )	0.00	0.00	0.00	0.00
Wasted water from another organization	(m <sup>3</sup> )	0.00	0.00	0.00	0.00
<b>Total water withdrawal (including rain water)</b>	<b>(m<sup>3</sup>)</b>	<b>347,396</b>	<b>13,882</b>	<b>7,676</b>	<b>368,954</b>
Water withdrawal for production process	(m <sup>3</sup> )	0.00	0.00	0.00	0.00
Water withdrawal for domestic hygiene purpose	(m <sup>3</sup> )	347,396	13,882	7,676	368,954

### Think twice before discharge

Total volume of water recycled in toilet flush, gardening and resemble purposes. (Source: meter)	(m <sup>3</sup> )	80,449.83	3,202.00	0.00	83,652
Total volume of water reused in Cooling system and backwash process. (Source: meter)	(m <sup>3</sup> )	34,468	0.00	0.00	34,468
<b>Total volume of water recycled &amp; reused water</b>	<b>(m<sup>3</sup>)</b>	<b>114,917</b>	<b>3,202</b>	<b>-</b>	<b>118,119</b>
% of recycled & reused water to total water withdrawal	%	33.1%	23.1%	0.0%	32.01%



## Ensure quality discharge

( 80% of water withdrawal planned to be treated before discharge to Industrial park's sewer that lead to its treatment plants)

Discharged from production process	(m <sup>3</sup> )	0.00	0.00	0.00	0.00	
		<sup>1</sup> Volume of wastewater is assumed to be 80% of Municipal water and transferred to Third-party who provide wastewater treatment services (IEAT: Industrial Estate Authority of Thailand)		wastewater is transferred to their own Sewage water Treatment Plant (STP). The treated water is used in domestic process	Transfer to Third-party who provide wastewater treatment services	
Discharged from domestic consumption to Third-party water	2020 WPI ▼ 30%	(m <sup>3</sup> )	203,557	Zero Discharge	3,229	206,786
<b>Total water discharged</b>	<b>Accum WPI ▼ 54%</b>	(m <sup>3</sup> )	<b>203,557</b>	<b>0.00</b>	<b>3,229</b>	<b>206,786</b>
<b>Net water consumption (including rain water)</b> <small>(sum of water is not released back to surface water, groundwater, seawater, or a third party)</small>	<b>Acheivement 100%</b> <small>*Water Withdrawal intensity reduction</small>	(m <sup>3</sup> )	<b>143,839</b>	<b>0.00</b>	<b>4,447</b>	<b>162,167</b>
pH	-		7.20	7.73	9.00	7.97
BOD	mg/L		151.51	20.50	-	86.00
COD	mg/L		295.43	75.20	800.00	390.21
TDS	mg/L		867.24	766.00	2,500.00	1,377.75
TSS	mg/L		44.84	47.00	500.00	197.28
Oil and Grease	mg/L		5.81	3.16	-	4.49
<b>Wastewater Quality Standard categorized by countries</b>			<b>Thailand*</b>	<b>India**</b>	<b>Slovakia***</b>	
pH	-		5.5-9.0	5.5-9.0	6.0 - 9.0	
BOD	mg/L		500	30	-	
COD	mg/L		750	250	800 <small>CODCr if the BOD5 (ATM) / COD ratio is &lt;0.4</small>	
TDS	mg/L		3,000	-	2,500 <small>Dissolved substances (RL 105)</small>	
TSS	mg/L		200	100	500 <small>Insoluble matter (NL)</small>	
Oil and Grease	mg/L		10	10	-	

Source: \*Announcement of the Industrial Estate Authority of Thailand No. 76/2560 (2017) dated July 13, 2017

\*\* General Standards for Discharge of Environmental Pollutions Part-A : Effluents Limits as per CPCB (EPR-1986Schedule-VI Part-A/ EPA

\*\*\* The Ministry of the Environment of the Slovak Republic according to Annex no. 3 of Act no. 55/2004 Coll. Maximum Permissible Rate of Pollution of Industrial Wastewater and Special waters discharged into public sewerage. (refer to : <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2004/55/20040215> and <http://www.povs.sk/zakaznicka-zona/verejne-kanalizacie-a-kanalizacna-pripojka/>)


### Remark

- The volume of wastewater is assumed to be 80% of Municipal water and transferred to Third-party who provide wastewater treatment services (IEAT: Industrial Estate Authority of Thailand). The numerical data of water discharge (GRI303-4) and subtopics were re-calculated according to GRI 303: water and effluents version 2018 since 2014-2020 to indicate the exact the total volume of discharged water to third-party.
- Delta plant in Rudrapur, Uttarpradesh is in wetland listed in the Ramsar Convention <http://archive.ramsar.org/pdf/site/ist.pdf>
- Endemic species found in Chao praya river [https://en.wikipedia.org/wiki/Chao\\_Phraya\\_River](https://en.wikipedia.org/wiki/Chao_Phraya_River)
- Slovakia's sewage water is transferred to the public sewerage system to be treated by third-party who provide wastewater treatment services for the local district. <http://www.povs.sk/zakaznicka-zona/verejne-kanalizacie-a-kanalizacna-pripojka/>. Thus the water quality indicators, Slovakia's site reports the highest permissible rate of wastewater discharged into public sewerage according to Slovakia's local water quality standard.
- There is no usage of surface water/sea water /produce water for Delta's domestic purposes.

In 2018, our company consolidated information about the [rivers near Delta's major operation sites](#). This information is presented without any right of ownership. All the information in this booklet is from Wikipedia, the world's largest free online encyclopedia, to be used as reference for the Delta Group's sustainable development study and performance improvement on natural resource management tracking. In this booklet, readers wcan learn the size of nearby water sources, national or international protection status, biodiversity values (such as species diversity and endemism, and public highlighted number of protected species), and value of the water source to local communities and indigenous people. Finally, this resource of consolidated data should help to raise awareness of water and natural resources conservation specific to each area.

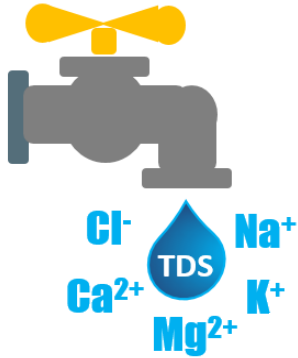




An aerial photograph showing a wide river flowing through a landscape. On the left bank, there is a residential area with many houses and buildings. The right bank is mostly green fields and trees. The sky is clear and blue. A large, semi-transparent grey circle is overlaid on the center of the image, containing text.

In 2019-2020, Delta Thailand and our subsidiaries (India and Slovakia) applied the India Water Tool developed by the World Business Council for Sustainable Development (WBCSD) to assess the Water Stress of Delta India's sites and WWF Water Risk Filter and WRI Aqueduct. As per WBCSD's recommendation, we assess [2019](#) and [2020](#) water risk to ensure water security at our major operation sites. Although Delta's water consumption is for domestic and sanitary purposes only and has less impact, Delta uses these water tools to analyze operational risks and basin risk that indirectly impacted by our daily activities. We used the location of the factories and the volume of water used from each source by factories to understand the potential related links between local basin risks and operation risks and other factors for planning water management and ensuring our activities do not adversely impact stakeholders or communities.



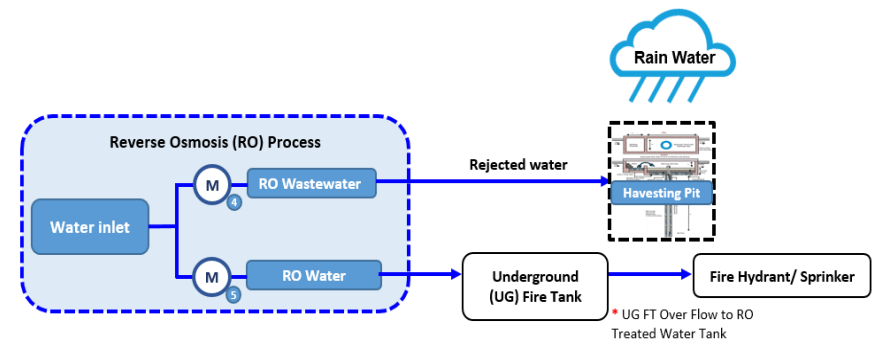


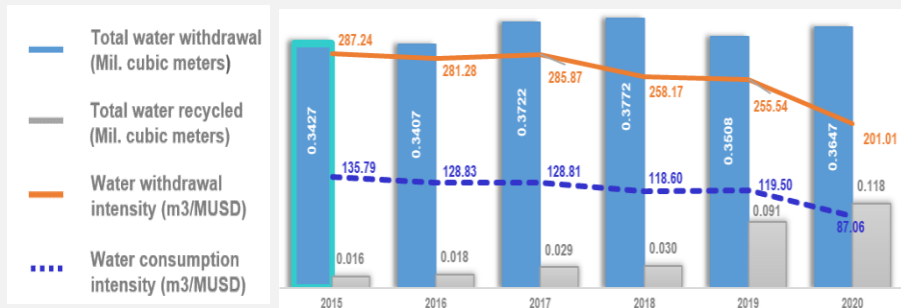
From late 2019 to the middle of 2020, Thailand faced the drought due to the phenomenon "El Niño" causing both hot conditions, drought and water shortages in many areas in the north, northeastern, central and eastern regions of the country. Delta's factories in Thailand are located in the central region which in the hotspot areas where the drought impact caused high level of chloride concentration in Chao Phraya River. This river is used as a raw water source for the Metropolitan Waterworks Authority and the Provincial Waterworks. Delta Electronics (Thailand) PCL. has been monitoring quality of water both input and output water through our domestic water usage. This is despite the fact that water is not our production factor or used in our manufacturing process. For further actions, we tracked back and reported the total dissolved solids concentration (TSD) from 2017- 2020 (please refer to: [2021 Sustainability in numbers](#) page 3-5) since the drought occurred in Thailand using Bio monitoring and online raw water monitoring ([rwc.mwa.co.th/page/graph/](http://rwc.mwa.co.th/page/graph/)). The tracking showed the high concentration of TSD starting from December of 2019 and January to June on 2020. Delta reported the risks and company action in [2020 DET's Water risk assessment result](#).

- Total dissolved solids (TDS) comprise inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonates, chlorides, and sulfates) and some small amounts of organic matter that are dissolved in water.

According to Third-party who provides wastewater treatment services in Thailand (IEAT: Industrial Estate Authority of Thailand), the volume of wastewater is assumed to be 80% of municipal water. Since 2014-2019, Delta reported the volume of wastewater is assumed to be 80% of municipal water which is disclosed in our [2019 Sustainability in numbers](#) ,however, to improve reporting accuracy, the volume of wastewater were re-calculated from the actual water discharge (water balance) according to GRI 303: water and effluents version 2018 since 2014-2020 to indicate the exact the total volume of discharged water to the third-party. Our discharged water has handled and professionally treated by local organization/third-party companies in each country, especially for Thailand and India sites, apart from water quality checks by Industrial Estate Authority of Thailand (IEAT), our discharged water is also examined for heavy metals concentration annually by a third party specialist (Environmental Resource Development Co., Ltd.) to ensure and re-check the safety and quality of water before transfer to IEAT for treatment. (The average results of water parameter for heavy metals from 2017 - 2020 was demonstrated in Delta Thailand's Sustainability in Numbers 2020 page 8)

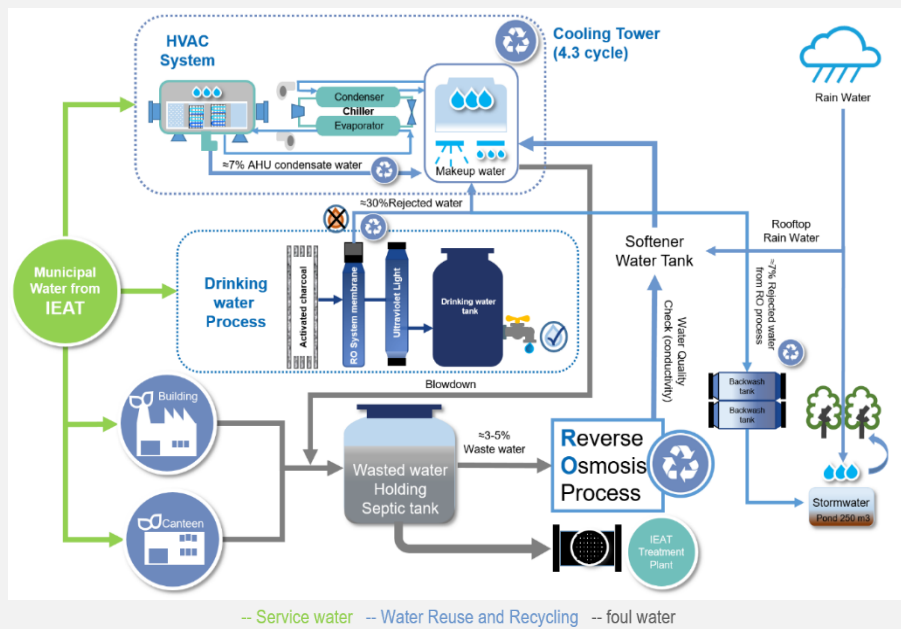
For our subsidiaries (India and Slovakia), our company have been closely tracking the quality of water discharge every month each year. According to each local regulation, India's sites have their own Sewage Treatment Plants (STP). All discharged water goes straight forward to STP through the water treatment process. The treated water is sampled and the water quality is tested by a third-party according to Central Pollution Control Board of India, CPCB (EPR-1986Schedule-VI Part-A/ EPA) and reused as garden irrigation and toilet flushing. Besides, the rejected water from RO (Reverse osmosis) process and rainwater (storm water) are collected. This provides more water to re-charging pits (sub-surface recharge) for groundwater. Slovakia's site wasted water management is assigned to a local third-party which is proficient in wastewater treatment according to the recommended values in accordance with Decree of Slovak: Annex no. 3 of Act no. 55/2004 Coll. Maximum Permissible Rate of Pollution of Industrial Wastewater and Special waters discharged into public sewerage. Since 2015, no wastewater from our production process was discharged to surroundings communities and environment. Delta keeps tracking the quality of our discharged water twice a month to ensure our biodiversity will be preserved whenever water is discharged to surrounding canals. According to 2015-2020 (retrospective data 2015-2019 in: [2019 Sustainability in numbers](#)), with our professional management and standard in accordance with the regulation. There is no value of water quality indicators is over the limit of average standard as mentioned in the table of total water discharge above. (Please refer to page 4-5)





Trends in total water withdrawals and recycled water, 2015-2020

## Delta's Water Reuse and Recycling Program



## Impact of drought and the COVID-19 converge

Thailand has endured droughts over the past 5 years. In 2020, the drought was stronger and many households faced with salt-water intrusion and some areas endured the water shortages. A concurrent situation, dwindling supplies of water are also threatening the COVID-19 response. The water availability and community access to water are important in these situations. Delta tracks the volume of water usage and apply water management to control and movement of water resources to mitigate damage to our stakeholders and nearby local communities to maximize efficient beneficial use. Company strictly implemented to manage input and output water efficiently together with reduction of greenhouse gas emission which causes the global warming and leads to drought phenomenal.

According to Delta group's participation in Paris climate agreement (COP21), Delta takes 2015 as a base year to measure our implementation of various water-saving at main sites, such as recycling the condensed water for cooling tower, Rejected RO water for gardening or irrigation. The company adopts water-saving taps and water-saving sanitary wear, reducing water output from taps and the water level of cisterns, managing the excess water of cooling towers as well as reusing the wastewater from RO-system water purifiers.

With target to reduce 30% water withdrawal intensity (m3/MUSD consolidated revenue) in 2020, we have achieved the reduction of water withdrawal intensity 30% in 2020 compared to that in base year 2015. This result is in accordance with our water consumption intensity which is reduce 35.9% compared to 2015 base year. Our next target is to reduce 10% of water withdrawal within 2025 from new base year 2020.



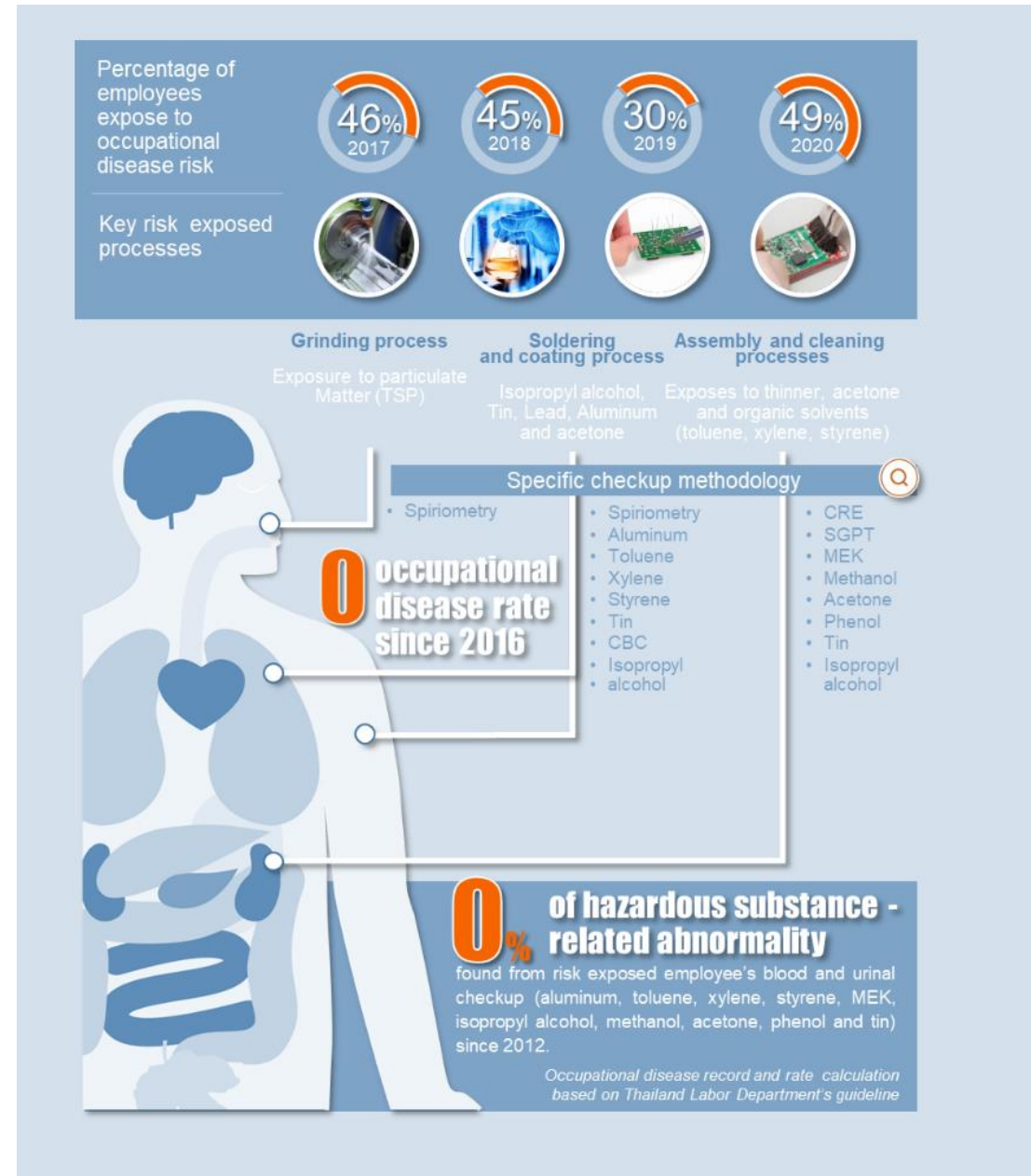


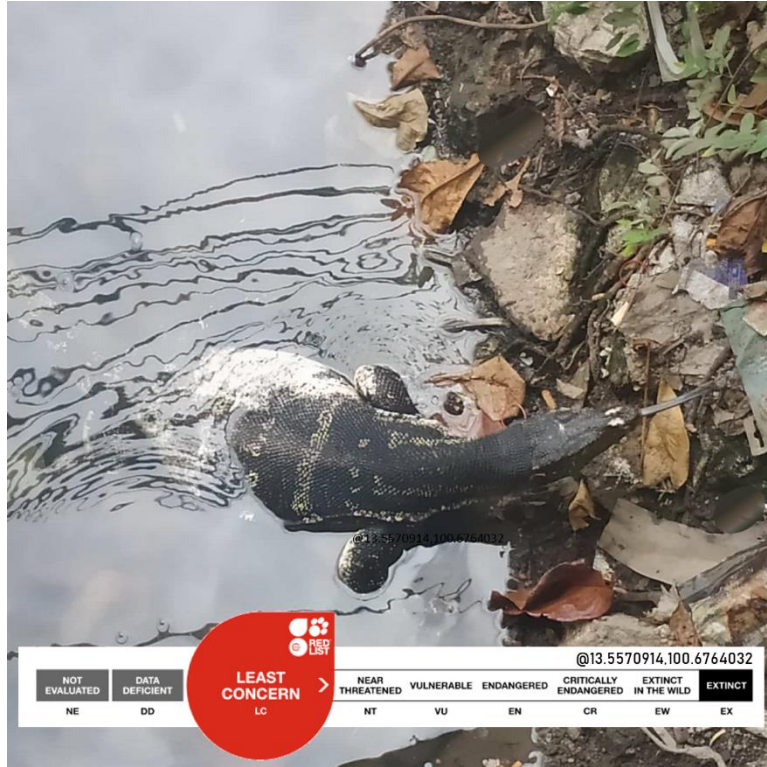
## The deeper we check

Delta's eco-efficient operation is not only help to lessen environmental impact, but also mitigate occupational disease rate Delta realizes that 49% of our total Delta employees involved in routine work/ activities which exposure to risk to occupational diseases announced by the Ministry of Labor of Thailand dated August 15, 2007.

Though the company has established Personal Protective Equipment Manual and provide work instruction training on occupational health and work environment to our new employees. Delta constantly monitor the exposure to hazardous substances and the list of materials used. The results are used for aligning work practices or make engineering improvements to reduce the risk of occupational illnesses.

The company target 0 fatality from work-related ill health. Due to product transfer from other associate sites in Asia to response to the higher demand of networking and telecom power, numbers of our workers who exposed to hazardous factors in has slightly increased from from 30% of total employees in Thailand in 2019 to 49% (6,789 employees and subcontract workers) in 2020. The risks these employees exposed in their daily work included noise, particulate matter, mineral oil, acetone, x-ray, ionic ray, lead, tin, light, thinner and heat that determined by independent professional physician with Occupational health safety management representative committee. This group of risky employees had encouraged to participate annual high-risk group checkup performed by independent physicians. 0% of hazardous substances contamination in blood and urine found from recent specific checkup ensures both immediate and chronic effects or diseases from manufacturing, stamping, soldering, labor-intensive work, grinding and chemical-related processes; for instance, had properly managed. This annual action aims to prevent our employees and subcontract from disease caused by chemical agents and specific process such as deafness from sound-intensive work, chronic physical hazard, occupational respiratory diseases, occupational dermatitis diseases, occupational musculoskeletal disorders, occupational cancer and impact on reproductive system. Finally, without any medical treatment required for these specific employees, ZERO occupational disease rate and occupational disease-related fatality had reported for the fifth consecutive years.





## Biodiversity

All of Delta's own major sites are located in industrial parks, this minimizes the environmental impact on the local ecosystem, biodiversity and habitats during operations. For transparency in environment management, Delta implemented the "[2021 Sustainability in numbers](#)", a collective result of our environment since 2014 at our public domain. Delta realizes that protecting biological diversity is important for ensuring natural ecosystems which provides clean water and air, and contributes to food security and human health. Biodiversity also contributes directly to local livelihoods, making it an essential factor to reducing poverty, and thus achieve sustainable development.

Wetlands are the habitat of the "Monitor Lizard" (*Varanus salvator*), the semi-amphibious creature who lives in Thailand wetland habitats as a protected reptile species ranked 91 (page 56) of [the appendix list of Ministerial Regulations B.E. 2546 of Thailand's Ministry of Natural Resources and Environment](#) according to [WILD ANIMAL CONSERVATION AND PROTECTION ACT, B.E.2562\(2019\) \(TH / EN\)](#). Delta conducted a simple investigation into this species in our headquarter (approximately 70,000 s.q.m) environment management indicator (Please refer to: [Wildlife Preservation and Protection Act Thailand](#)). Generation by generation, local monitor lizards help to maintain the environmental balance by eating fish or animal carcasses and biological refuse in nearby wetlands. Since most of the Bangpoo Industrial Estate's surrounding areas are fish farms and swamps, huge numbers of fish were killed when the temperature changed. The biological role of the monitor lizard has protected Delta and our neighboring communities from plague resulting from bacteria.

Climate change poses a threat to the ecosystems where people and animals live. In Thailand 2020, the high temperature and decreasing rainfall lead to droughts and increased freshwater scarcity due to the rising of sea level from 2 coastal areas. This exacerbates coastal erosion rates, flooding, and saltwater intrusion. The droughts might also cause a severe cracking and compaction, acidification, loss of organic matter, and enhanced greenhouse gas (for example methane) emissions and lead to irreversible soil changes, with major impacts on water quality (Reference: <https://tinyurl.com/u9mc6bdw>). Furthermore, drought will cause drying out of wetlands and loss of biodiversity. The Monitor Lizard (*Varanus salvator*) and its natural habitat might be threatened by climate change but there are still unconfirmed factors and insufficient data and need further explore. However, *Varanus Salvator* is listed as a [Least Concern species \(LC\)](#) on the [IUCN Red List](#) and we will keep observe their behaviors during these crisis climate change.

## Strong action with partnership

In addition to the IEAT's certificate process to affirm its close monitoring of Delta Thailand's environmental performance, the communication channels "Whistleblow@deltathailand.com <Whistleblow@deltathailand.com>," and "OHSC@deltathailand.com" are always available to the public to report any cases in violation of environment-related regulations or human rights. Delta's Safety Health and Environment Committee was established to drive, monitor, review and improve the company's environment-related issues. The committee also provides appropriate countermeasures for any confirmed cases. Up to 2020, there was no any case of non-compliance with environmental laws and regulations, significant fines for non-compliance with environmental laws and regulations, non-monetary sections for non-compliance with environmental laws and regulations nor cases brought through dispute resolution mechanism.







Part 4

## Better TOGETHER

2020 ESG Performance

Learn our shared value for stakeholders through key activities and performances disclosed on the basis of social science methodology.





# Better together

The COVID-19 has made it more evident than ever that every single effort of every individual and organization are crucial for better society and environment. The World Health Organization announced Corona Virus which is also regarded as COVID-19 as a disease in February 2020. The COVID-19 impacts the health and the life of the individual and the collective society. This is a completely new environment that affects people's lives, survival and lifestyle issues, and the fulfilment of their needs, where many are subject to severe constraints that cause further destabilization but are vital in the fight against infection. Also, the short-term and long-term uncertainties surrounding countries' economic policies as a result of the COVID-19 situation are of great concern to regulators, businesses, and all economic entities in general. Delta has become increasingly aware of our responsibility for the environmental impact of their operations, products and services and our capacity to contribute to a better society and environment.

The contribution of innovation to natural resources conservation and responsible supply chain does not only create positive impact to Delta, but also create vital impact to Delta's stakeholders. The shared values

have not limited to Delta's value chain, but spreads to partnership with global citizen to make a smarter and greener future. In long-term, to unceasingly maintain inclusive well-being against the global changing scenario, Delta personnel's potential and social voluntary participation must be unleashed. In addition to our internal society, sound sustainable development practices enables long-term mutual benefit to its externalities.

## Employment with care

According to customers and regulator engagement in 2019, Electronics industry characterized by organized labor, maintaining good relations with employees is particularly essential for the success of a business's operations and innovation. Delta's employees represent one of a company's most important assets. In addition to employees' capabilities development, Delta, as a multinational enterprise, endeavors its employees' wellness by providing a safe and healthy working environment, fair treatment and non-discrimination, fair remuneration and supporting freedom of association. The company always complies with local and international standards on labor and human rights. In addition, these standards have applied equally across all operations within the organization. The key focus of the criterion is on companies' policies to manage labor relations, related KPIs, equal employment and development opportunities, human rights and freedom of organization. As a world-class enterprise and responsible corporate citizen, Delta Electronics (Thailand) PCL. commits to providing our employees with an environment to develop to their full potential.

Diversity in the workplace is all about creating an inclusive environment, accepting of every individual's differences, enabling all employees to achieve their full potential and as a result, allowing Delta business to reach its fullest potential. By the end 2020, Delta Thailand and its subsidiaries had a total workforce of around 16,000 FTEs. The distribution of diversity in employee composition can be illustrated as followings:



Our people	Unit	2020 total			2019			2018		
		Male	Female	Total/ AVG	Male	Female	Total/ AVG	Male	Female	Total/ AVG
Salary-based workers	FTE	3,187	1,445	4,632	2,861	1,198	4,059	2,524	1,088	3,612
Daily wage workers (FTE)	FTE	790	5,909	6,699	480	6,999	7,479	602	6,874	7,476
<b>Sub total permanent employee</b>	<b>FTE</b>	<b>3,977</b>	<b>7,354</b>	<b>11,331</b>	<b>3,341</b>	<b>8,197</b>	<b>11,538</b>	<b>3,126</b>	<b>7,962</b>	<b>11,088</b>
Sub-contracted workers (FTE)	FTE	807	3,909	4,716	525	1,380	1,905	-	-	-
<b>Total workforce (FTE)</b>	<b>FTE</b>	<b>4,784</b>	<b>11,263</b>	<b>16,047</b>	<b>3,866</b>	<b>9,577</b>	<b>13,443</b>	<b>3,126</b>	<b>7,962</b>	<b>11,088</b>
Other workers <sup>1</sup>	FTE	41	53	94	46	67	1,905	48	78	-
<b>Permanent Employees by age</b>										
• Under 18 years old	FTE	-	-	-	-	-	-	-	-	-
• 18-29 year old	FTE	1,322	3,456	4,778	1,376	4,601	5,977	725	2,097	2,822
• 30-50 years old	FTE	2,563	3,823	6,386	1,866	3,451	5,317	2,261	5,688	7,949
• Over 51 years old	FTE	92	75	167	99	145	244	140	177	317
<b>Permanent Employees by area of major operation sites</b>										
• Thailand	FTE	1,860	6,537	8,397	1,902	7,867	9,769	1,796	7,642	9,438
• India	FTE	1,162	89	1,251	1,110	79	1,189	1,001	78	1,079
• Slovakia	FTE	955	728	1,683	329	251	580	329	242	571
<b>Employees by level</b>										
• Executives (TH level 10-12)	FTE	28	6	34	19	5	24	14	4	18
• Middle Management (TH level 7-9)	FTE	398	462	860	385	302	687	396	291	687
• Senior and Operative (TH level 3-6)	FTE	2,761	977	3,738	2,100	891	2,991	2,114	793	2,907
• Daily employees (TH level 1-2)	FTE	1,597	9,818	11,415	480	6,999	7,479	602	6,874	7,476
<b>Employees by job function</b>										
• Administration	FTE	254	205	459						
• Production	FTE	1,660	9,688	11,348						
• Sales and service	FTE	525	125	650						
• Supply chain management	FTE	386	551	937						
• Technical	FTE	1,959	694	2,653						
<b>Employees by nationality / citizenship</b>										
• American	FTE	1	-	1						
• British	FTE	1	-	1						
• Cambodian	FTE	2	-	2						
• Chinese	FTE	12	4	16						



Our people	Unit	2020 total			2019			2018		
		Male	Female	Total/ AVG	Male	Female	Total/ AVG	Male	Female	Total/ AVG
Employees by nationality / citizenship (con't)										
• Philippines	FTE	18	4	22						
• French	FTE	1	-	1						
• Indian	FTE	1,669	121	1,790						
• Japanese	FTE	1	-	1						
• Malaysian	FTE	8	1	9						
• Polish	FTE	1	-	1						
• Singaporean	FTE	6	-	6						
• Slovak	FTE	949	729	1,678						
• Taiwanese	FTE	63	18	81						
• Thai	FTE.	2,052	10,386	12,438						
Number of disable worker										
• Number of disable workers	head	31	40	71						
New hire rate	%	14.2%	41.2%	33.1%	19.9%	8.5%	11.8%	15.4%	7.8%	10.0%
<b>New</b> Employees by age	FTE	678	4,635	5,313	771	813	1,584	480	624	1,104
• Under 18 years old	FTE	-	-	-	-	-	-	-	-	-
• 18-29 year old	FTE	451	3,507	3,958	381	425	806	456	605	1,061
• 30-55 years old	FTE	222	1,128	1,350	382	384	766	22	19	41
• Over 55 years old	FTE	5	-	5	8	4	12	2	0	2
<b>New</b> Employees by area	FTE	678	4,635	5,313	771	813	1,584	480	624	1,104
• Thailand	FTE	256	4,577	4,833	427	746	1,173	256	571	827
• India	FTE	376	35	411	320	43	363	186	22	208
• Slovakia	FTE	46	23	69	24	24	48	38	31	69
Permanent employee turnover	head	305	385	690	318	506	824	215	375	590
Permanent employee turnover rate	%	7.7%	5.2%	6.1%	9.5%	6.2%	7.1%	6.9%	4.7%	5.3%
Voluntary turnover rate ( include resignation, retirement, early retirement, end of contract)	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Turnover rate from disciplinary action	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Permanent employees turnover by age	head	305	385	690	318	506	824	215	375	590
• Under 18 years old	FTE	-	-	-	-	-	-	-	-	-
• 18-29 year old	FTE	100	94	194	213	185	398	137	107	244
• 30-55 year old	FTE	180	260	440	96	303	399	68	250	318
• Over 55 year old	FTE	25	31	56	9	18	27	10	18	28





Our people	Unit	2020 total			2019			2018		
		Male	Female	Total/ AVG	Male	Female	Total/ AVG	Male	Female	Total/ AVG
Permanent employees turnover by age (con't)	head	305	385	690	318	506	824	215	375	590
• Over 55 year old	FTE	25	31	56	9	18	27	10	18	28
Permanent employees turnover by area	FTE	305	385	690	318	506	824	215	375	590
• Thailand	FTE	144	305	449	194	483	677	102	339	441
• India	FTE	90	10	100	94	11	105	25	29	54
• Slovakia	FTE	71	70	141	30	12	42	88	7	95
Number of employees entitled to maternity / parental leave	FTE	995	14,708	15,703	329	7,277	7,606	323	7,338	7,661
• Number of employees <b>taken</b> maternity / parental leave	FTE	66	277	343	0	273	273	0	223	223
• Number of employees return to work after maternity / parental leave	FTE	63	245	308	0	253	253	0	223	223
• Retention Rate	%	0%	0%	90%	0%	0%	93%	0%	0%	100%
Employees covered by Collective Bargaining Agreement	head	75%			76%			75%		
Number of grievances (complaints) about labor practices & Human rights	case	0			0			0		

Remark:

1. Terminologies of employee categories are as follows
  - 1.1) Permanent or Monthly employees refer to employees who are included in the salary-based payroll
  - 1.2) Daily employees refer to employees who are included in the daily-wage payroll
  - 1.3) Direct employees/laborers refer to employees whose working hours relate to manufacturing standard time and productivity and are mostly stationed in the production lines.
  - 1.4) Indirect employees/laborers refer to employees in supporting functions which are not related to manufacturing standard time and productivity targets.
  - 1.5) Other workers include canteen workers and nurses in the medical room which increase due to warehouse expansion to other warehouse building in Thailand.
2. Additional manpower in India resulting from R&D & operation expansion in India ( <https://bit.ly/2HYhCqJ>)
3. Training course organized at Delta Thailand's Office
4. Training leave days recorded in payroll system x 8.45 working hours per day. In addition to leave days, Delta support training course fee, travel and accomodation,
5. Delta Thailand is developing communication process to collect subsidiaries' training information
6. Major employee-related information has collected from SAP system based on ISO 9001 standard.
7. Indicator 401-3, according to Slovakia labor law, maternity leave is entitle for male workforce.
8. In 2020, Delta Slovakia aquire Eltek Slovakia hence 227 male and 234 female worker was under Delta Slovakia's control. However, However, due to differences in site location, product and services, resources consumption and operational managerial structure, Eltek Slovakia has not been included in the reporting scope in the reporting period of 2020
9. Number of disable worker declaration based on the submission of disables' ID card issue by the Department of Empowerment of Persons with Disabilities and other organizations in India and Slovakia that established with the same objective



Delta's Labor & Human Right Risk Assessment including risk matrix and mitigation process has reviewed by Human right working team and SD committee on annual basis. To accomplish this objective, the Company has implemented the group-wide [Delta Employment Policy](#) (which in-line with ISO26000 and RBA code) and disclose on our website to facilitate the company's personnel to acknowledge their rights and obligation. Furthermore, the policy can be used by related business partner as the guideline for review the company's operation. The 9 pillars of Delta's employment policy to retain our innovative and skillful employees are as following:

## 1. Law & regulation compliance

To comply with applicable labor or employment laws and international standards wherever it operates. To fulfill this commitment, the Company constantly strives to comply with local regulations and to meet international labor and human rights standards, including the [Responsible Business Alliance Code of Conduct](#) (RBA), Universal Declaration of Human Rights, International Labor Office Tripartite Declaration of Principles, [OECD Guidelines for Multinational Enterprises](#), and more. Minimum 1 month notice for relocation case; for instance, typically provided to employees and their representatives prior to the implementation of significant operational changes that could substantially affect them accordingly to [Thailand's Labor Act B.E 2541 clause 120](#). Periodic due diligent has implement to ensure labor rights, human rights and the rights of related stakeholders whom might impacted by our operations. Since 2016 to 2020, no grievance in the workplace such as, but not limited to, a breach of the terms and conditions of an employment contract, raises and promotions, or lack thereof, as well as harassment, human right violation, violations involving rights of indigenous peoples and employment discrimination had raised by employees towards grievance and whistleblowing channels.

## 2. Freely chosen employment

To prohibit hiring forced labor or child labor, all jobs at Delta are voluntary and employees can voluntarily leave the company within a reasonable period after giving notice. The company prohibit hiring forced or child labor to ensure that all jobs are taken voluntarily and employees can voluntarily leave the company within a reasonable period after resigning officially.

## 3. Humane Treatment



Delta refer to Universal Declaration of Human Rights (UDHR) and Responsible Business Alliance (RBA)'s guideline to prohibit any form of harassment or inhumane treatment, including sexual harassment, abuse, slavery, corporal punishment, threatening, exploitative, mental or physical coercion or verbal abuse of employees. We adhere the target of zero harassment in our business process. As such, Delta have incorporated human rights principles, namely RBA's Code of Ethics and ILO's labor standards, into the Company's operations and developed our human rights policy based on the UN's Guiding Principles on Business and Human Rights – UNGP. The company commits to protecting, respecting and supporting our employees, business

partners and vulnerable individuals or groups in all our business processes as outlined in the Company's Human Rights policy. We will ensure that human rights are respected and that human rights violations in all forms are prevented throughout the Company and our value chain. In this policy; roles and responsibility of related functions, coverage of prevention, communication channels, Protection of whistleblowers and confidentiality, investigation and penalties and remedy guideline, had clearly communicated. In 2020, no any form of human right violation, harassment, discrimination, inhumane treatment, violation of labor right, in had been noted raised through [whistleblow@deltathailand.com](mailto:whistleblow@deltathailand.com)

Since 2019, Delta Electronics Group conduct 100% on-line training subject Human Rights Policy and Responsible Business Alliance Code of Conduct. The online training material has prepared in English, Thai and Chinese to ensure its global employees full understanding of their rights and their responsibilities to related stakeholder. To reduce digital divide, training rooms and schedule has arrange for non-computer-user employees. The course require 60% score of posttest to pass. Finally, 100% of the participated employees has passed the course.

According to our recent survey implemented with our major operation sites in Thailand, India and Slovakia; it is found that none of these sites used the permanent and contract workers with age of under 18 years old in 2020. However, according to Delta Thailand's MOU with local technical colleges and universities to provide youth's work experience before their graduate, 34 trainees attached to our operation teams have protected accordingly to the requirement of [Thailand's Labor Act B.E 2541 Chapter 4](#). After these students' training period completed their credited training program, there was no complaint regarding the violation of the students' rights from the students themselves nor the complaint from their caregivers.



## 4. Non-Discrimination

The company hires its employees based on their capabilities and not to discriminate based on race, religion, nationality, age, gender, sexual orientation, disability, or any other reason which is protected by law for recruitment, training, awards, promotion, termination, retirement, or other employment conditions.



Delta aims for ZERO discrimination in our business process. We recruit, appoint and develop our employees based on their capacities, and treats all in the same way, regardless of race, faith, color, nationality, age, gender, sexual orientation, marriage status, political affiliation or disability. Due to business expansion in 2020, official (monthly) employees account for 29% of the total while another 71% were in production, operation and other function positions. Employees are 30% males and 70% females. Direct employees account for 71%, and 42% of the employees are under the age of 30. For management, 71% are native to the country where they are employed and 43% are female. 71 disables were working with us in 2020. According to our recent survey, no employees declared themselves as indigenous people.

## 5. Working hours

To establish a management mechanism for working hours in line with labor laws and regulations. In spite of operating under special conditions required, employees allowed at least one day off for every seven working days. Delta refer to [Responsible Business Alliance \(RBA\) code of conduct](#) which refer to [Thailand's Labor Protection Act B.E. 2541](#) to monitor its employee's working day, working hours, overtime and holiday. Annually, Delta's working hours and holidays had informed to its employees not less than 30 days before the next fiscal year. The working calendar had announce and be available on the company's [intranet site](#) for employee to plan their schedule.

In the reporting period, the company had studied its worker's working hour by using sampling check method. Delta employee had not required to work overtime on a working day and/or holidays unless the employee's prior consent is obtained on each occasion, exceed overtime had found. In spite of validity of employees' voluntary OT applications, their overtime records are not over 36 hours a week accordingly to Thailand's local regulation, Delta aim to align with RBA code of conduct regarding working hours by using following measures:

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1. Before the working period, employees will raise their overtime requisition and/or RBA working hours waive request form through

OA system. The forms must get approval by related supervisors, without the mentioned approval, the company will not responsible for their overtime pay and related supporting facilities.

2. Plant manager and operation vice president will have weekly OT summary from payroll system for workforce planning.

3. The company utilizes Delta Smart Manufacturing system and on-line application to shorten certain process while facilitating 24-hours operation run. Cloud-based real-time material stock balance check, auto component insertion, cloud-based production process simulation; for instance, can help to release labor-intensive tasks and shorten the reporting line for smooth operation.

4. The company keep training its operation to have overall skills through their related process. With clusters of multi-skill operators, skilled workforces can replace each other. 5. In certain/ urgent condition that exact employees is required for overtime work, the supervisors/managers will consider skilled labor overtime record. If that operators' OT excess the OT limitation, other operator will be replace to have the job done.

## 6. Compensation and Benefits

According to the company's Remuneration and Welfare Policy which is in-line with [Thailand's Labor Act B.E 2541 Chapter 4](#), Thailand's National Wage Committee Notification on Minimum Wage Rate (No.9) Delta Electronics (Thailand) Public Company Limited places great importance on the remuneration package of its employees to ensure reasonable remuneration based on individual performance and in line with the Company's operation performance.





Since the agreement signing day, all new employee will be informed about their role, working day, code of conduct, communication channel and their compensation and benefit by access [Welcome onboard!](#), a guidebook for new employees and will be repeated on the Orientation day. In addition, the Company also places importance on remuneration by market benchmarking so that remuneration is fair within the organization and competitive with other companies. The Company has set the following guidelines:

1. Employment and Hiring shall be conducted with consideration for the necessity and appropriateness of a job. The hired employee must have the academic background, experience and ability to fit the position. He/she must also possess qualifications in accordance with the Company's rules and regulations;
2. Command line and job division: The Company shall organize a command line and job division so that a job's scope of responsibility and position are clear and suitable to the nature of the Company's business operation. The Company shall regularly review this part of its policy.
3. The Company manages remuneration, salary and wages fairly by taking into account factors such as qualifications, experience, job grade, position, responsibility and individual performance; when benchmarking with the salary rate of other companies with a similar business nature; the domestic wage rate, market conditions and demand and the Company's operation performance. In addition, the Company reviews the remuneration package in collaboration with labor unions every year. 100% of Delta employee receiving regular performance and career development reviews
4. The company consider setting up compensation schemes for management and other employees to provide long-term incentives when appropriate, such as employee stock ownership plan (ESOP). In 2010, Delta raised the proposal of employee's stock option plan as agenda item 2 into its 1/2010 [Extraordinary](#)

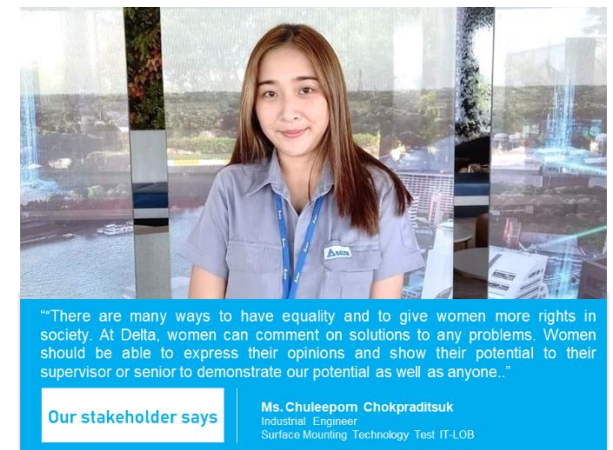
[General Meeting of Shareholders](#). The proposed stock option is to create unity among directors and employees in many locations of the company and its subsidiaries as one team, one company. With the company's significant growth at that time, there will be many new businesses and new teams to add to create more value. As in the past 2 ESOP scheme in year 2000 (DELTA-W1) and year 2005 (DELTA-W2), providing directors and employees with additional incentives through the grant of warrants has been a proven effective tools in maintaining and promoting loyalty as well as improvement of personal competency for continued success and growth of the Company. This agenda item must be approved with not less than three-fourths of the votes of the shareholders attending the meeting and having the right to vote. On the other hand, shareholders holding an aggregate number of shares exceeding 10 percent of the votes of shareholders attending the meeting must not oppose the offering of warrants to the directors and employees of the Company and its subsidiaries under ESOP 2010. Finally, the objection of this Agenda item was made by the amount of 117,875,122 votes, representing 10.74% of the total votes of the shareholders attending the meeting, this Agenda item was disapproved. However, due to the company's healthy growth, the company keep studying ESOP.

5. Welfare: The Company has a policy to take care of its employees' health and working environment to ensure their performance and efficiency. The Company also has policy to lighten costs by providing welfare for the employees that is comparable with similar companies in the same industry or as prescribed by the laws. In addition, the welfare committee conducts monthly reviews of employee welfare.

In 2020, Delta conducted a study of ratio of basic salary and remuneration of women to men to prove our policy of equal remuneration. According to our data in payroll system, we studied of how much our women in each job level get when a male worker get 1 THB. The result of [this study](#) show that our female executives and female contract operator get 10% in average

higher basic salary and other compensation when compare to male worker in the same position. Meanwhile, in the level of production operator, operation staff, senior staff, and middle managerial staff; gap of women compensation to men was lower than 0.1.

In addition to [public information of compensation & benefit](#), Delta employee benefit has described in above below. The company provides employee compensation and benefits that meet applicable laws, including industry-comparable wages, holidays with pay and legally stipulated welfare. In addition to standard life insurance and healthcare (including disability and hospital admission), operative and executive staff are eligible for short-term and long-term incentives based on their years of service and ESG performance. According to the 2016-2019 financial statement, the company's provision for long-term employee benefits is set at an average of 3% of consolidated revenue (7% of basic salary). To optimize benefit and maintain transparency, the jointly-establish fund has managed by TMB Bank Public Company Limited. (Find 2020 [Annual Report](#) page 185). As at December 2020, the weighted average duration of the liability for long-term employee benefit of the company and its subsidiaries is 9-21 years (Delta Thailand only : 13 years )



Compensation and welfare for Delta Employees

	Employee benefit	Performance-based	Frequency					Eligible for			
			Daily	Monthly	Quarterly	Yearly	Irregularly	Daily employee	Staff	Management	Executive
Short-term	Diligent bonus <sup>1</sup>	●	●	●				▲	▲		
	Yearly diligent bonus <sup>1</sup>	●			●			▲	▲		
	Productivity achievement incentive	●		●				▲	▲	▲	
	Quarterly incentive	●			●			▲	▲		
	Language ability and experience surplus entry benefit <sup>2</sup>						●	▲	▲	▲	▲
	Patent reward	●					●	▲	▲	▲	▲
	Overtime	●		●				▲	▲		
	Holiday pay and holiday overtime pay	●		●				▲	▲	▲	
	Year-end bonus	●				●		▲	▲	▲	▲
	Annual increment	●				●		▲	▲	▲	▲
	Night shift allowance		●	●				▲	▲	▲	
	Transportation		●					▲	▲	▲	▲
	Uniform and anti-static slippers					●		▲	▲	▲	
	Job-based personal protection equipment		●				●	▲	▲	▲	▲
	Annual checkup					●		▲	▲	▲	▲
	Employees life insurance					●		▲	▲	▲	
	Self medical fee subsidy					●		▲	▲	▲	▲
	Self dental fee subsidy					●		▲	▲	▲	▲
	Living cost subsidy (daily meal)		●					▲	▲	▲	▲
	Free drinking water *	●	●					▲	▲	▲	▲
	Family funeral support						●	▲	▲	▲	
	Crementary fund for fatality at work						●	▲	▲	▲	▲
	Meal allowance for business trip						●	▲	▲	▲	▲

	Employee benefit	Performance-based	Frequency					Eligible for			
			Daily	Monthly	Quarterly	Yearly	Irregularly	Daily employee	Staff	Management	Executive
Short-term	Breastfeeding facilities		●					▲	▲	▲	▲
	Vacation leave					●		▲	▲	▲	▲
	Training and work-outside expense subsidy						●	▲	▲	▲	▲
	Maternity leave						●	▲	▲	▲	▲
	Graduation leave						●	▲	▲	▲	▲
	Meal allowance for business trip						●	▲	▲	▲	▲
	Free EV car charger *			●				▲	▲	▲	▲
	Dormitory for foreign staff				●			▲	▲	▲	
	Islamic prayer room			●				▲	▲	▲	▲
	Facilities for disables			●				▲	▲	▲	▲
	Friend for friend emergency support						●	▲	▲	▲	
	Annual recreation trip					●	●	▲	▲	▲	▲
	Free alternative language courses (English, Thai, Mandarin)					●	●	▲	▲	▲	▲
	Family education bursaries					●		▲	▲	▲	
	Medical fee subsidy for family *					●		▲	▲	▲	
Dental fee subsidy for family *						●	▲	▲	▲		
Long-term	Education fee subsidy (for post-graduate degree) *				●		▲	▲	▲		
	Provident fund				●		▲	▲	▲	▲	
	Social assurance				●		▲	▲	▲	▲	
	Voluntary early retirement package	●			●			▲	▲	▲	▲
	20 years disciplinary reward (2018) *	●					●	▲	▲	▲	▲

Remark:

\* Delta's new welfares introduced during 2016-2019. All Delta new employee will be notified

1. Managers and executive level's time records are not considered as compensation and benefit evaluation.
2. Included in salary base.
3. The stated benefits are not eligible for part-time employee
4. More information for long-term provision has published in our 2019 [Annual Report](#) page 151-152

5. In 2020, in occasion of 50th anniversary of Delta Group's establishment, the company had consolidated a pool of long-services employees to award their loyalty and outstanding performance. However, the celebration event had postponed due to the COVID-19 pandemic.





## 7. Freedom of Association

To respect the rights of employees to associate on a voluntary basis, Delta allows its global employees to organize labor unions and to establish employee communication channels according to local regulations.

According to Delta's Human Right Policy clause no. 1.6 the Company allows its employees the freedom to associate or have affiliation with groups whose activities are not in conflict with the company's Code of Ethics and will not have negative consequences on the Company's image or economic results. In the reporting period, Delta supported various employee groups and activities ran by its employees.

In 2020, misinformation by certain agitator groups caused misunderstanding. A few hundred employees which represents less than 6% of the company's workforce participated in an activity to raise their concerns.

The main agenda raised by the employees is the request to receive a higher total bonus package of up to six months. However, according to Mercer Thailand's survey, on average, workers in the related industry only received a total of budgeted bonuses at 2.3 months of their monthly salary in 2020. In contrast, Delta employees were to receive an average of more than four months of their monthly salary which is significantly higher than the electronics manufacturing industry in Thailand despite the pandemic. Delta's Compensation and Welfare committee and the Employee Relations begun communicating industry and third-party information to show employees that the company pays significantly higher package compared to most companies in Thailand's electronics manufacturing industry. The misinformation was clarified and the matter was settled amicably between the union representatives and management.

Though the issue had been covered by a few media, our stakeholder engagement process found that this issue never affected our stakeholders' confidence in Delta's business ethic, our profitability nor our competitiveness. In addition, the sentiments of agitator factions do not represent the majority of Delta employees as can be seen by overwhelming positive comments in the company's posts on our social media communication channel (with over 70% employee followers).





## Samples of activities initiated by employees



**Paint for Good Deed by OOm Plaeng group:** OOm plang group founded by Delta's engineers and technicians since 2012. The name Oom Plaeng means "support the better change". When Delta brand has not renowned, the group leader was asked for help by a temple in his hometown to re-paint the building since the abbot misunderstanding that Delta is the brand of paint manufacturer company. However, this misunderstanding has guide the group to additional opportunity to bring up volunteer spirit among the members while maintain religious spirit in rural society. After the first activity, the group had continuously helped to paint other temples. 60 members from manufacturing-orient functions pay their holidays in turn to paint over 10 temples a year. All the resources used by this activity are donated and voluntary supplies by the group's participant. To keep group's outstanding result and strong action, Delta partially support the paint expense and arrange free transportation to the group. In 2020, the group collaborate with Delta labor union to implement 4 renovation activities for rural communities' better quality of life.



**Hand-made face shield for communities:** The COVID-19 pandemic in 2020 caused an immediate medical supply shortage such as medical mask, ethyl alcohol and so on. This programs initiated by our employee who realize that with PE foam used as packaging material in our process and our simple office stationery we can supply simple PPE for children in communities. For 2 weeks, different group of our employees create approximately 1000 pieces of face shield and distributed to 3 schools in the nearby areas. Since some Delta volunteer members was in this working group, they add hand washing training into the donation ceremony to help the student learn the rights way to wash their hands.



**Delta Electronics India organized a special Diwali Pooja and decorated the office to celebrate the auspicious festival of lights:** The festival of lights and one of the major festivals celebrated by Hindus, Jains, Sikhs and some Buddhists, notably Newar Buddhists. At Delta India, our employees with different ethic, belief and religions celebrate Diwali together. The idea of this 1<sup>st</sup> official Diwali at our site is to share prosperity and encourage their stakeholders and employees to get through the health crisis together.

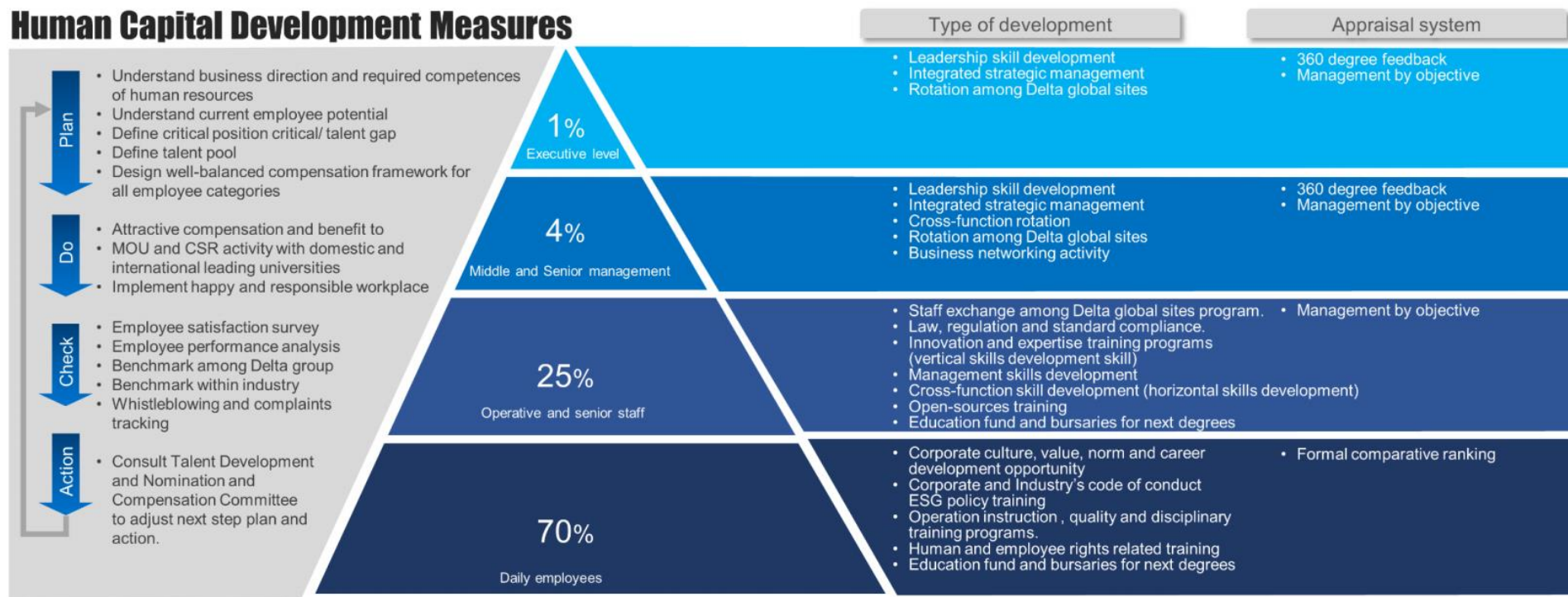


**Delta Donates Used Calendars to Produce Braille Books for Bangkok School for the Blind:** Delta Electronics (Thailand) PCL. visited the Bangkok School for the Blind in Rajavithi, Thailand to deliver used calendars donated by Delta employees for reuse as braille books. Mr. Thanayot Samanvorakij, Delta Component Senior Engineer, represented the Delta volunteers to distribute approximately 500 donated calendars to over 150 students at the school.



## 8. Training opportunity

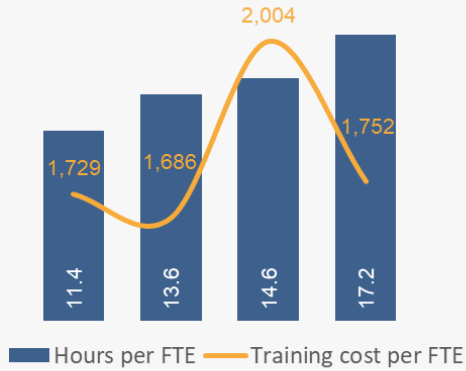
To ensure equal opportunity for employee development and provide job-related training to enhance employee capabilities and skills. The company aligns its employees capabilities with the company's innovation and eco-efficient operation, Delta keeps developing our employees' both hard skills and soft skill. The company doesn't not only keep focusing on deepening employees' capability, but also inspiring employees' motivation and potential to fulfill continuous growth.



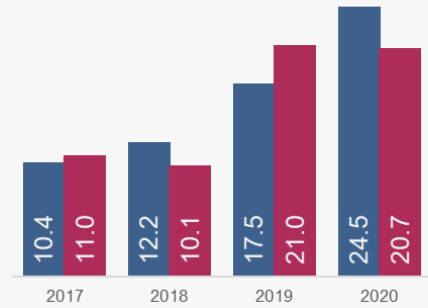
To realize organization's long-term development and conquer future challenges, we provide a comprehensive and solid training platform to our employees. These training resources are distinguished into several different approaches according to different strategies and goals. On one hand is to diminish the gap between individual contribution and organization's need, on the other hand is to incubate core advantages for business's future transformation and environment challenges. According to level-based human development scheme 100% of our employee receiving regular performance and career development reviews annually.

Since 2019, Delta benchmark its average training our to global technologies companies. To reach industry's average standard of average training hours, Sustainable Development Committee has proposed related parties to target to 40 average training hours per employee by 2025.

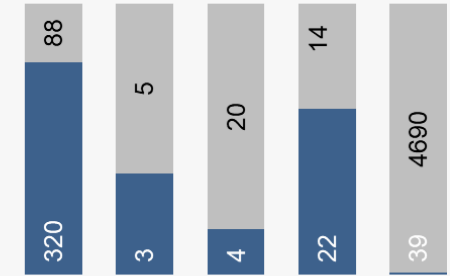




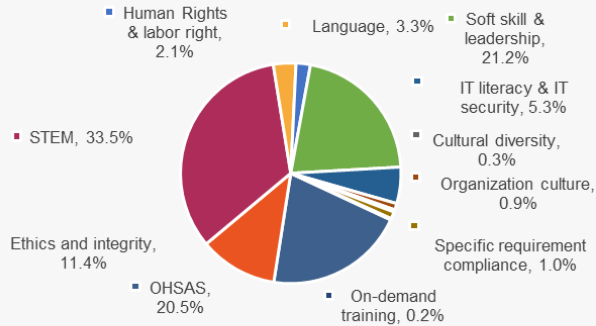
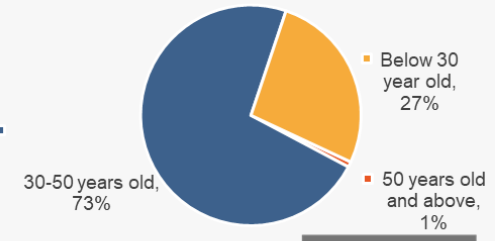
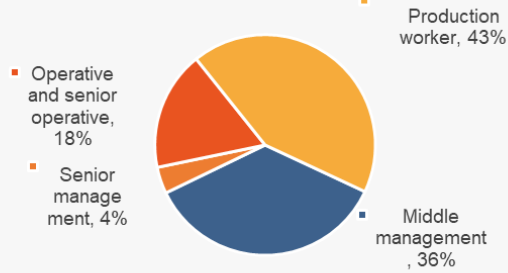
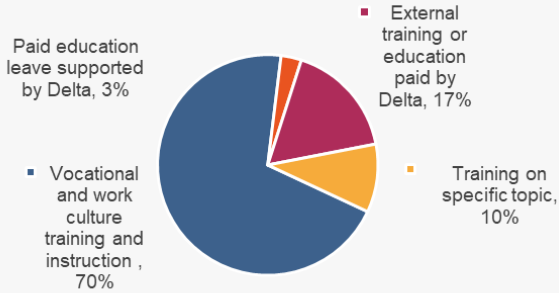
Delta Thailand's Average learning hours per FTE



2020 Average learning hours Breakdown by Gender



2020 Position filled by internal vs external candidates



Our subsidiaries 2020 Average training hours			
Country/Gender	Male	Female	Overall
Slovakia	24.77	15.34	20.45
India	16.8	9.14	16.22



Remark:

1. Cost of training included travel fee for training, training material, training application or examination fee, training special program for specific expertise/ ability, and employee's wage calculated based on their paid education leave records.
2. Education paid leave cost = median of entitled staff's hourly wage x an individual education leave hours
3. In spite of the 7% increment of average training hours per FTE compare with previous year, our average spending on training and development of 1752 THB per FTE was 12.6% reduced.





## Average hours of training per year per employee

The COVID-19 has been forcing Delta to speed up the timeline of our digital transformations. When heading to digital transformation, and indeed change management in general, there are multiple players, and they all need to be lined up successfully in order to meet the organization goals. One of the most overlooked elements in digital transformation is the role of training new employees and providing ongoing professional support to existing ones. This is not only for Delta growth, but also of the employee decent work in better career path with us. In spite of the global social distancing practice, Delta fastened its journey to the 40 hours per person per year by increasing the variety of training course and approaches.

### 1. Vocational training, work culture, job-base and on-demand training

#### Orientation

Deep understanding of the company's value, goal, mission and code of conduct encompass our employee to provide better products and service to customers, uphold the company assets, interests and image and contribute to the sustainable operation and development of the company. In addition sustainable development direction, environment and safety regulations, employees' rights, human rights, welfare and benefits, Information security measures, had included into the orientation program for 100% of new-hired employees. In 2020, 631 training hours of orientation had provided to Delta new employees.

#### Statutory and ethic training:

Delta provide a series of timely training according to statutory requirement and RBA regulation. Every employee shall attend at

least 1 hour annual training regarding to RBA regulation (including to uphold Human Right). In 2020, 11% of our 213,175 total learning hours were statutory training hours had recorded. Key courses related to this category of training included training of Labor Relation Act, Workmen's Compensation Act, Labor protection Act, Social Insurance Act and Responsible Business alliance Code of Conduct.

#### Professional competency-based

Training Delta prepare employees for equipping qualified capability by different segment, including Manufacturing related, Sales and Marketing related, supporting related and managerial related training programs. A training roadmap and a clear career roadmap are also delivered to employee during performance management cycle. In 2020, advance skill and training course such as statistical process control, why-why analysis and ISO45001 internal auditor courses had arranged to strengthen our expert in various functions.

Leadership competency-based training Design for front-end Research and Development leaders, entry-level supervisor, middle and high level manager. Focus on corporate's strategic goals, core value and competency delivery aligned with Corporate Multi-language training programs is also delivered. Since the company aim to growth with green solutions assembled from our South-east Asia and global manufacturing site, we add the periodic courses and activities to boost up inter-site collaboration.

#### Self-learning and experience-based Learning

To boost up expert and professional pools in various functions, Delta encourage our employees to attend advanced or continuing studies, provide a sponsorship and flexible working hour program for employees. Delta leverage Corporate and outside learning platform to provide Delta employees an open learning resources so that employees can learn along with individual needs without time or

location limitation. Travel fare, accommodation expenses and meal allowance for supporting employee's domestic and oversea learning for each level of employees had clearly announced and available on Delta's intranet. With IT security practice, internet access authority had granted to Delta's talent and specialists when specific on-line learning channels required.

In addition to the variety of training course, Delta utilize its IT platform as the key tools to reach the set target. We synergizing global sites' best practices, knowhow and lesson learned and share on e-learning platform called "Delta Academy". 448 training medias had prepared in English, Chinese, German, Slovak, Thai and Japanese to ensure Delta's global employees understanding on the practices shared.

Delta also constructed an internal Delta Management System (DMS) for storing data in the traditional sense and integrating functions for smart search, document management, and expert communities. It greatly increases the internal knowledge management, promotes inter-department information exchanges, and optimizes internal communication channels. The DMS accumulated 176,615 records of knowledge documents in 2020. The number of users steadily grew and the number of users in December 2020 increased by 80% from January of the same year. To encourage employees to use the DMS platform, we organized the "Gems Hunt" event for connecting employees through "use", "question", "sharing", and "approval" gems that reward employees for their use of the DMS platform. We then used the gems to analyze user behavior and promote platform optimization. To ensure employee's career development, Delta assess the various tools to 100% of our employees that companies use to measure individuals' performance and to what extent these tools are applied throughout the organization.





Delta Thailand organized Creative e-learning Media Contest to increase the variety of our on-line training course that can access from anywhere. From 60 media submitted, 5 winners who get higher vote from both employees and judging panel had awarded monetary and non-monetary prize. In addition to the variety of creative media and training topics, our employee's interest in learning from anywhere was significantly increased.

### Programs for upgrading employee skills and transition assistance programs

Delta joined hands with the International Labor Organization (ILO) to implement MOU of "Women in STEM workforce readiness and development programme". ILO addressed that the automotive and ICT, IT-BPO, and electrical and electronics sectors are identified as high-growth in Indonesia, the Philippines and Thailand respectively, presenting significant projected skills gaps and opportunities for growth for women over the next decade. These sectors are rapidly evolving and becoming more innovative, requiring critical soft and technical STEM-related skills. As a result, low skilled-jobs are declining and traditional blue

collar jobs are shifting to more skilled occupations. Therefore, the program aims to improve enterprises' productivity along with career prospects of women in STEM sectors. In turn, productivity is a key source of improved living standards for women and also a major contributor to economic growth. The second phase of MOU aims to upgrade woman employee's soft and technical STEM-related skills. This stage of training will enable opportunity for those who are already in employment but in low-skilled jobs with limited mobility to expand their career. The course comprised of High-end technical skills, or leadership and managerial training for those who are already in supervisory or mid-skilled positions.

As the Covid-19 fasten the technology transformation as well as our timeline to implement Delta Smart Manufacturing (DSM), STEM knowledge is vital for our worker's decent work. Data science, basic statistics, Basic caramel for Automatics Test System and PLC (Programmable logic controller) programming training has added into our training schedule last year.

### 2. Paid education leave provided by an organization for its employee

According to our growth and role of Delta Thailand as headquarter of the South-east Asia Region, diversity of knowledge of our workforce is highly required. Delta provide paid education leave with specific leave code. In 2020, 3% of our total learning hours were from paid education and seminar leave.

### 3. Training or education pursued externally support

In addition to educational bursary granted for our employees annually, to create experts in specific field that

- investment for on-site training is not worth
- the on-site training resources is not meet minimum requirement of the training scope
- the expertise of trainers in the training company is not sufficient
- exact certificate, examination or license required by law and regulations

When training with external parties require, Delta paid for travel fee, expense of training material, the course enrollment and the examination application. In 2020, due to the COVID-19 pandemic that disrupt our on-site learning, we offered free online language courses of Thai, Mandarin and English for our employee. With the company's laptop, VPN application and application fee support, these 119 employee can learn from anywhere. However, to ensure the effectiveness of this investment, it has agreed by the company and employee that employee's attendance rate should be 100% and they have to pass the final test with 80% score. In case these employees cannot meet the 2 criterion, they would pay back the enrollment to the company. Finally, 100% of these employees had successfully pass the course..





#### 4. Training on specific topic

Up to our focused risk, business context, updated law and regulations and stakeholder expectation; training on specific topic has planned. Forms of these training had varied from 1-way communication, In the reporting period, the company had fully support a group of employee to complete their specific external training courses in Data Science, MS Excel for auditor work, Digital marketing, Win Server and Executive Safety Officers. Code of Conducts, Anti-corruption, Human right policy, RBA and IT security courses had implemented by 100% of our employee. In spite of the disease outbreak, the series of leadership development program had timely completed.

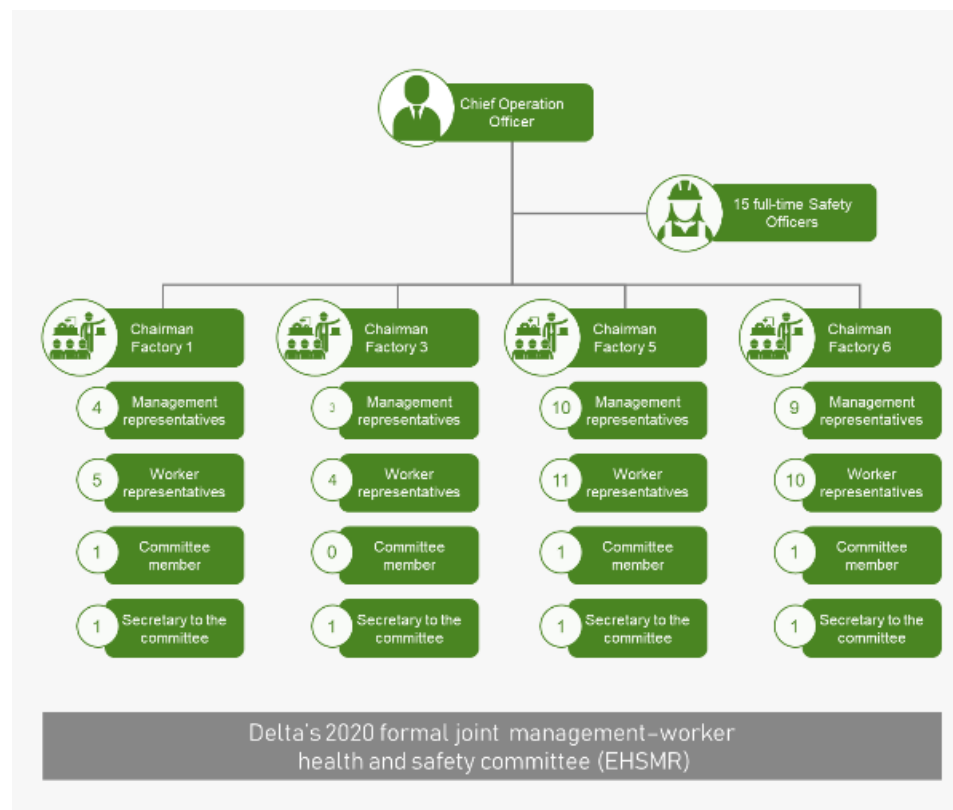




## 9. Health and Safety

To provide a safe and healthy working environment that is in accordance to the required safety and health regulations. Furthermore, we strive to establish and maintain an occupational health and safety management system that defines operational procedures and monitors the implementation of continuous improvements in the safety and health performance. The company organizes internal occupational safety health and environment inspections carried out at each plant in accordance with the [Ministerial Regulation on the Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment B.E. 2549 \(A.D.2006\)](#) and [OHS Act B.E. 2554](#) which in-line with [ILO's Code of Practice on Recording and Notification of Occupational Accidents and Diseases \(Code of Practice\)](#).

Delta's corporate mission is "To provide innovative, clean and energy-efficient solutions for a better tomorrow" by continuously implementing world-class corporate social responsibility and sustainable development. The Company complies with the [Ministerial Regulation on the Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment B.E. 2549 \(A.D.2006\)](#), Environment Management standard (ISO14001), occupational health and safety standards ([ISO45001](#)) and standards of the industrial sector ([Responsible Business Alliance-RBA](#)). Delta also consider occupational health and safety risk based on our employee's risk exposure in each production and business process to ensure the safety and health standards of food, water and overall employee well-being at the workplace. According to our [Environment, Health and Safety public policy](#), 100% of our employees and subcontractor at our major manufacturing sites in Thailand, India and Slovakia complies with ISO45001 standards.



100% of Delta global manufacturing workforce (including sub-contract workers) is controlled by the organization that are represented by formal joint management worker and Environment Health and Safety Management Representatives (EHSMR) Committee. All the member has completed the training program of Occupational Safety, Health and Environment Committee Training conducted by a qualified trainer/ training company in accordance with the Ministerial Regulation on the Prescribing of Standard for Administration and Management of Occupational Safety Health and Environment B.E 2549. To ensure the quality and effectiveness of EHSMR work, the committee members are require to participate the monthly meeting. Minutes of these monthly meeting with the committee member attendance will be reviewed by the Chief Operation Officer.

In 2020, our EHSMR committee agreed to decentralize the ESH control power to each factory for agile response to the rising health crisis. this inclusive committee consisting of 27 employer representatives and 30 employee and labor union representatives, 3 committee member and 4 secretaries to the committee. These committee members has qualified accordingly to legal requirement. In addition, essential training such as corporate governance policy, legal and standard requirement, human rights, industry code of conduct and other ESG targets has communicated and trained. The committee is responsible for established policy, activities and measures implemented for the prevention, investigation, audit and management of emergencies, work-related accidents, illnesses or injuries. Previously, all the proposal from the committee must be approved by the Chief Operation Officer, the only chairman of the committee. With this EHSMR organization decentralize, implementation of safety procedures for risk-exposure processes, machinery and labor-intensive tasks, management of changes and any activities in resemble mean will be accurately and quickly



executed accordingly to their local context, nature of their operation and emergency. The EHSMR committee report to Chief Operation Officer monthly. Annually, they report key activities and performance to Sustainable Development Committee.

The EHSMR committee provide various communication channel for workers to report work-related hazards and hazardous situations, and an explanation of how workers are protected against reprisals. In addition, these communication channels can be utilized by workers who which to remove themselves from work situations that they believe could cause injury or ill health. Our communication channels to for worker and related stakeholder to contact EHSMR committee are as following:

- email: [OHSC@deltaww.com](mailto:OHSC@deltaww.com)
- Telephone: +662 709 2800 ext. 6401
- Delta Employee relation official Line Group
- Suggestion box
- EHSMR worker representative at employee's site
- COVID-19 hotline: 083-0881750, 083-0575973

Delta also organize cross-site audits conducted jointly by the OSH committee members and audit personnel accordingly to formal agreement. Complete audit plans, the task force audits Environment, Safety and Health (ESH) documents, the results of risk assessments, Safety Health and Environment control and operations, monitoring and measurements, as well as the work environment, wasted water quality, air quality, noise level, lighting sufficiency, the equipment and onsite operations, has implemented as due diligence to ensure ISO45001 management system fulfilled and related OHS risk identified.

	Daily	Weekly	Monthly	Yearly	Irregularly
Safety	<ul style="list-style-type: none"> <li>• Morning talk (in production line)</li> <li>• Stationary 6S audit</li> <li>• ESD discharge before operation process</li> <li>• Machine and working area safety inspection</li> <li>• Forklift and its route inspection</li> <li>• Personal protection equipment inspection</li> <li>• Sub-contractor's work permit review</li> <li>• Security personnel meeting</li> <li>• COVID-19 risk screening</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Facility team (+6S team) meeting*</b></li> <li>• Operation weekly meeting</li> </ul>	<ul style="list-style-type: none"> <li>• New staff orientation</li> <li>• First aid kits, medicine and stretcher inspection</li> <li>• Eye-wash basin at chemical storage inspection</li> <li>• Risky workstation and injury rate review</li> <li>• ESHMR Meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder engagement (labor union meeting, safety week, safety home trip activity, community interview, regulator activity participation, occupational and executive safety personnels training, supplier safety audit, sub-contractor training)</li> <li>• ISO45001 standard compliance review</li> <li>• Building and alarm system inspection</li> <li>• Fire drill and evacuation rehearsal</li> <li>• Emerging risk, risky workstation and injury rate review</li> <li>• Radiation inspection</li> <li>• Work environment inspection</li> <li>• Transportation condition inspection</li> </ul>	<ul style="list-style-type: none"> <li>• New employee health check</li> <li>• Civil construction approval process</li> <li>• Sub-contract work permit sampling check</li> <li>• Emergency case meeting</li> </ul>
Health	<ul style="list-style-type: none"> <li>• Drinking water quality inspection</li> <li>• Canteen, food and cooking areas hygiene inspection</li> <li>• Clinic and ambulance readiness inspection</li> <li>• Breastfeeding corner inspection</li> </ul>	<ul style="list-style-type: none"> <li>• OHSAS team meeting</li> <li>• Operation weekly meeting</li> </ul>	<ul style="list-style-type: none"> <li>• New staff orientation</li> <li>• Emergency route and related facilities inspection</li> <li>• Quality pregnancy knowledge training</li> <li>• Pest control inspection</li> <li>• Injury and disease rate review</li> <li>• ESHMR Meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder engagement (safety week, injury case interview, regulator activity participation, supplier health and welfare audit)</li> <li>• ISO45001 standard compliance review</li> <li>• Influenza and cervical cancer voluntary checkup</li> <li>• Injury and disease rate review</li> <li>• General, emerging risk and risky group health checkup</li> <li>• Social security rights training</li> </ul>	<ul style="list-style-type: none"> <li>• Non communicating and emerging diseases training</li> </ul>
Environment	<ul style="list-style-type: none"> <li>• Incoming hazardous substance inspection</li> <li>• Chemical storage inspection</li> <li>• AHU system inspection</li> <li>• Air pollution and related factor inspection*</li> <li>• Scrap room inspection</li> <li>• Waste and effluence record</li> </ul>	<ul style="list-style-type: none"> <li>• Environment team meeting</li> <li>• Operation weekly meeting</li> </ul>	<ul style="list-style-type: none"> <li>• New staff orientation</li> <li>• Stationary 6S audit</li> <li>• Chemical spill inspection</li> <li>• Energy, water and waste management performance review</li> <li>• ESHMR Meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Transportation condition inspection</li> <li>• Energy, water, waste, effluence and GHG management performance review</li> <li>• Supplier natural resource and environment management audit</li> <li>• Chemical spill case summary</li> <li>• ISO14064 and 14001 compliance review</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder engagement (education week, community interview, regulator activity participation)</li> </ul>
Reporting line / communication channels	<ul style="list-style-type: none"> <li>• Supervisor</li> <li>• Related-department manager</li> </ul>	<ul style="list-style-type: none"> <li>• Department managers</li> </ul>	<ul style="list-style-type: none"> <li>• Plant manager</li> <li>• EHSMR committee</li> <li>• Operation vice president</li> </ul>	<ul style="list-style-type: none"> <li>• Labor union</li> <li>• Related department managers</li> <li>• EHSMR committee</li> <li>• Sustainable development committee</li> <li>• Regulator and public</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable development committee</li> <li>• Regulator and public</li> </ul>

Delta established various periodic activities and audits to ensure inclusive safety and well-being through our operation





In addition to laws and regulations, standards, guidelines and industry code of conduct we adhere, work and process analysis and internal due diligence to ensure our worker's wellness; delta also engage our stakeholders to learn of their expectation. Feedback from suppliers, customers, visitors and investors ; for instance, help us to achieve high standard of SHE management.

Benchmarking with peers both in the same industry and company with the same size in other industries allow us to fast track develop our employee's health and safety. For example, our quick response to prepare a safer workplace for mitigate the COVID-19 spread have been learned from our peers in other countries' that the outbreak has taken place prior.

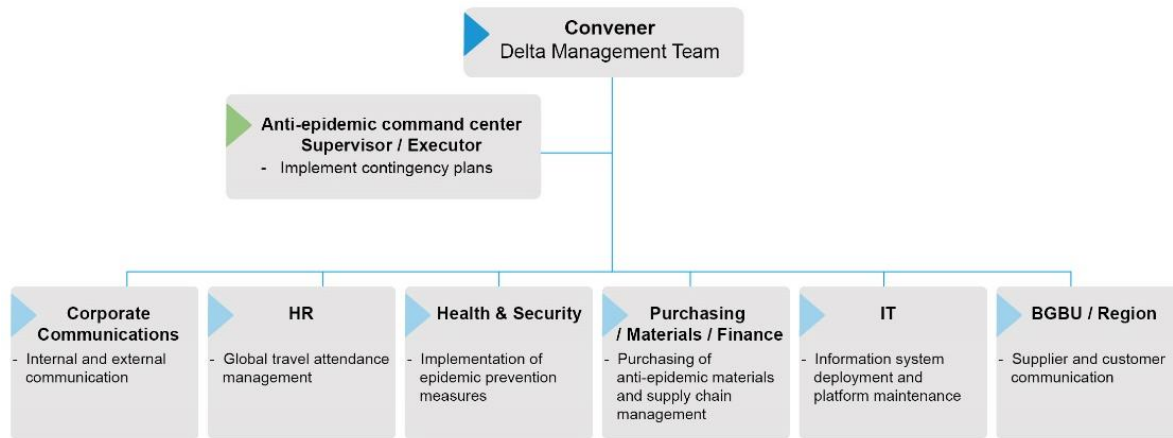
At Delta the occupational health, safety and environment is included in our normal risk assessment process. Find additional information from our [Annual Report](#) page 22-24.

Sample of preventive action we implement in 2020 to mitigate COVID-19 outbreak risk at workplace





# Delta Anti-epidemic Taskforces



## Amidst the COVID-19 Outbreak

Delta target 0 fatality from COVID-19 at our workplace workplace until 2025 when nationwide vaccinations should be complete. On January 30th, 2020, Delta Electronics, Inc. established an internal global command center responsible for the planning, implementation, execution and enhancement of countermeasures to limit the operational and employee health risk of the current Novel Coronavirus crisis. The command center has developed “Delta’s Novel Coronavirus Prevention Plan” for the Company’s global sites. The aforementioned plan includes a crisis alert grading and response system, roles & responsibilities (R&R) for prevention task forces, occupational environment and sanitization management, employee healthcare monitoring and management, business trip and attendance management as well as an internal/external communication management system regarding the crisis.

Delta’s global command center is led by our top management team, and also includes satellite teams led by regional heads from our key regions, such as Mainland China, North East Asia, South East Asia, EMEA (Europe, Middle East & Africa) and the Americas. In regards to our employees in China, the Company has requested employees moving back from places other than their office/factory -located city to submit themselves to quarantine measures for 14 days, in line with local regulations. In addition, the Company has tightened standards for business travel and favored the utilization of audiovisual conferencing equipment for cross-region, cross-team meetings. Moreover, all employees and visitors at Delta’s major operation sites in epidemic regions are required to comply with temperature inspection, sanitizer use and self-health declaration. Further measures involve the constant decontamination of building facilities and epidemic prevention materials preparation. Our measures may be adjusted to comply with local governments’ instructions and fulfill the practices of different facilities in different regions.

Delta has, and will continue communicating constantly with global customers, institutional investors, and other stakeholders in regards to the current Novel Coronavirus crisis and the related impacts thereof. A dedicated section containing the most updated information regarding this matter has also been implemented in Delta’s global website.

The Company has also installed electronic signage and other channels of communications such as intranet to update employees about the prevention measures and the progress in handling the situation.

All of Delta’s four main production sites in Mainland China have restarted operations gradually on February 10th, 2020. The rest of our factories around the world have not been affected by this crisis. Given the current Novel Coronavirus crisis is still present, our operational sites within Delta will monitor, assess and readjust their production plans in line with the proper government regulations. Delta will take the necessary measures to ensure that our supply chain remains resilient, including the close collaboration between our procurement department and its suppliers. In line with regulatory instructions, our sales offices located in cities currently under regulatory lockdown in China remain closed and their employees at these locations are working from home.

Our global major factories have not been affected by this crisis in 2020. Given the Novel Coronavirus crisis is still present, our operational sites within Delta will monitor, assess and readjust their production plans in line with the proper government regulations. Delta took the necessary measures to ensure that our supply chain remains resilient, including the close collaboration between our



procurement department and its suppliers. Our IT infrastructure and smart manufacturing infrastructure with highest IT securities measurement facilitates our global employees in major function to work from anywhere.

Up to 31 December 2020, there no recordable ill health case of Covid-19 infection or fatality at Delta's major operation sites in Thailand, India and Slovakia.

## Emergency Preparedness and Recovery Plan

Due to the changing context of the world and business, precaution of all the possible emergency case is to ensure well-being of our employees and those who work at our site including business continuity. Delta is spotting, allocating resource and plan preventive action for hazards from potential emergencies which include fire, accident, chemical spill & chemical waste, explosion, flood, labor strike, earthquake, tsunami, sabotage and terrorism, hurricane, depression, thunderclap, radiation spill and plague.

To evaluate, remove and control these risks before any possible harm, Preparedness Procedure has established as regulation and legislation for preventing To localize any emergencies that may arise and if possible eliminate them; (b) to minimize the harmful effects of an emergency on people, property and the environment. According to the company's public Human Right policy, Delta factories in Thailand has fully incorporated human rights principles, namely RBA's Code of Ethics and ILO's labor standards, into the Company's operations and developed our human rights policy based on the UN's Guiding Principles on Business and Human Rights – UNGP.

In parallel with emergency preparedness and response plan, Delta implements business recovery plan for business continuity. Since in 2018 when the pollution issue pass without any impact to our employee's health nor Delta's operation, the company prepares 5-year roadmap to prepare the organization to be ready for such. This roadmap includes business process digitalization with IT security, occupational health and safety standard upgrade, focusing on science-based study, disseminating eco-efficient practice to the company's stakeholders, and additional performance indicators to be report in Sustainable Development Committee.

From the SMOG pollution issue and the spread of Corona virus, Delta found new business opportunity "Uno", air quality sensor, which response to social emergency needs. The emerged climate change impact leads to change in demographic behavior and new business segment for Delta. Instead of wearing protecting mask when the pollution matter, citizen in metropolitan and manufacturing intensity area require their health security. By close monitoring to pollution-related factors such as humidity, temperature, total volatile organic compounds and quantity of PM 2.5; user will be able to forecast pollution situation in their area leading to proper preparation to save themselves. For additional information, suggestion and complaints on environment, health and safety issue; our Environment, health and safety team is ready to help at White boxes in canteen, office and production line; email [OHS@deltathailand.com](mailto:OHS@deltathailand.com) and [HR.grivience@deltaww.com](mailto:HR.grivience@deltaww.com).



## Promotion of worker's health

Delta provide health and safety services to ensure workers' long-term healthiness and well-being. The service include free personal protection equipment (PPE), medical fee, dental fee, and insurance, full-time safety officers, medical room, free annual health check, first-aid kit, on-site Automated External Defibrillator, AED, parking lot and rest room for disables, on-site ambulance and work injury leave without impact to employee's incentive and bonus.

In addition to the mention basic health and safety service, Delta also offer voluntary health promotion services and programs to workers. Since 70% of our employees are women, major programs to promote worker's health related to quality pregnancy and motherhood.

**Thai girl red check project:** for instance, is the program we participate to address major non-work related health risks, including the specific health risks for female workers who are our major drivers of our productivities. Delta collaborate with Thailand's Department of Health to hand out Prenatal Vitamins to its female employees who plan to have kid. Due to demographic change and technology market demand ramp up, female worker in the industry exposure to risk of imquality pregnancy. It is broadly forecasted that Thailand's population grew only 0.4% in 2015, down from 2.7% in 1970. If this trend continues, the annual population growth will be down to 0% in 10 years. This situation should be worsen with inequality pregnancy. Weekly, these applicants will get fero-folic vitamin tablets. The fero-folic supplements help on prevention and treatment of iron deficiency anaemia and to supply a maintenance dosage of folic acid.

**Breastfeeding Corner:** Delta female workers at the age 20-34 year who plan to have kid will be trained and followed up to have proper nutrition.



**Free Cervical Cancer Screening by Prep and PAP methodology.** Cervical cancer is the fourth most common cancer in women. According to the World Health Organization's [study in 2018](#), an estimated 570 000 women were diagnosed with cervical cancer worldwide and about 311 000 women died from the disease. When diagnosed, cervical cancer is one of the most successfully treatable forms of cancer, as long as it is detected early and managed effectively. 2020 was the 5<sup>th</sup> year we arrange a voluntary on-site free cervical cancer screening for our women.



**Happy workplace:** Our Employee is our innovation creator and the key factor to leverage the company's sustainable achievement. Delta Thailand always pay its attention to human resource development with clear target and strategy accordingly to our Group-wide strategy. This will be another way to facilitate the organization to continuous and sustainable growth. The company establishes a [Happy Workplace policy](#) to continuing its human resource retention activities based on "Happy 8" guidance. The "Happy 8", the guide to human life's balance, aims to encompass our employees to be happy in theirs 3 aspects of life. The overlapping aspects; personnel aspect, family aspect and social aspect respectively, should be managed to be in balance. Healthiness, well-being, understanding, morale and professionalism in one's career will be resulting in employee's engagement and retention which will drive the organization to sustainable growth.



**My club Activity:** As extensive program from Happy workplace, our Employee Relation Department introduced "My Club" activity to learn our employee's interest, enhance positive working environment with good relationship and lower the rate of sick leave and non-communicated disease that impact our productivity. With minimum requirement of 7 members with the common interest, employee can propose the establishment of their club to Employee Relation Department. When the proposal get approval from CHRO, the company reasonably support fund and facilities.





# 2020 Incident investigation

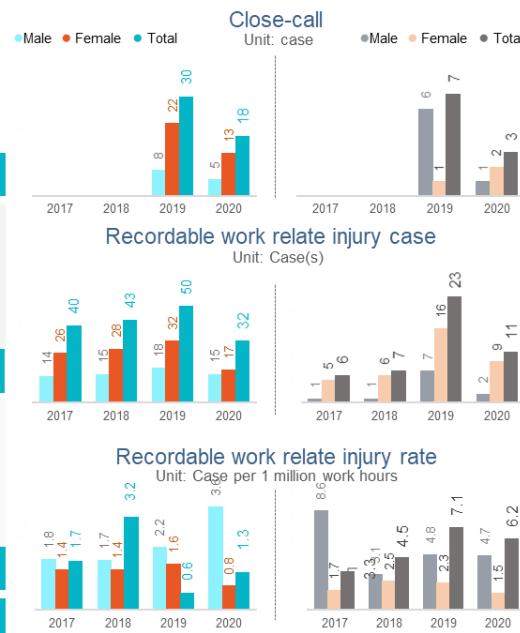
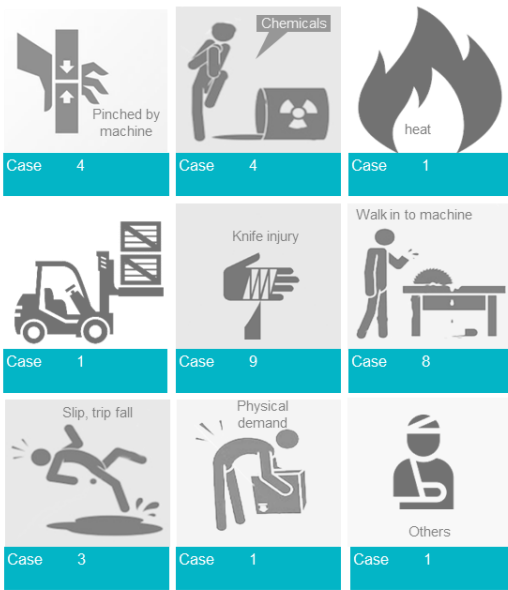


24,520,245  
Working hours in 2020

Delta Thailand Employees

Sub contract workers

6,339,374  
Working hours in 2020



2020 Delta employee's injury rate breakdown by type of injury

2020 Delta employee's injury rate breakdown by type of injury

1. Data collected by Safety officer in accordance with OSHA data collection methodology
2. 2017-2018 Close call data is not available
3. Delta's scope of injuries investigation include commuting incidents which may caused cause by our transport organized for our workers.
4. Delta employees injury rate calculated based on 1,000,000 working hours .
5. We count the recordable case since the 1<sup>st</sup> day our worker including sub contract worker can not work as normal.
6. The reported Injury statistic included all type of subcontract worker and other workers
7. No High consequence work related injury is executed when the injury that worker cannot recovered within 6 months.
8. The chemical caused reported chemical hazard were IPA used as composite of soldering flux via dermal contact and eye contact. Lost days from these chemical hazard were executed to allow the operator to recover from their irritation only.
9. Zero work-related illness includes both infectious and non-infectious diseases.
10. Majorly, other accident had been resolved at first-aid stage, they were not counted as recordable injury.



- Fatalities
- work-related illness
- high consequence work-related injury

for both Delta employees and subcontract worker since 2015 when we start collecting ESG data for public disclosure.



# Incident investigation

With ZERO accident target, Delta has safety officer in professional level who had trained in human rights policy and procedure to track work-related injury and plan for the management of change. According to our ESH standard update to ISO45001, we follow up our worker and subcontractor injury base on [OSHA methodology](#). This is not to prove the effectiveness of our strategy, policy, procedure and continuous improvement as our MOC; but also to ensure our smooth operation through worker's health and wellness. Our OSHA statistic did not include those other workers who work at our sites without our control such as canteen worker, nurse, independent auditor who process their on-site audit and agents from import-export firms. Though statistic of these workers have not been count, the company commit a humane treatment and apply the same health and safety procedure to safeguard these stakeholders from any injury and illness as well.

In 2020, there were 32 injury cases to our employees, a decrement of 36% from 50 cases in 2019. Among these cases, the longest lost day that worker has executed for an injured worker was less than 6 month. With this longest period of rest, Delta has no high-consequence work-related injuries in 2020. Finally, our 2020 rate of recordable work-related injuries were 1.3 case per 1 million working hours. According to the type of injury analysis and the EHSMR consensus, below are sample of what we implement to mitigate the reoccurrence of such cases.

Major causes of injury	Injury mechanism	Our actions
Knife injury	<ul style="list-style-type: none"> <li>Human failure</li> <li>Improper tools/ equipment</li> </ul>	<ul style="list-style-type: none"> <li>Delete all old model of cutter knife in stationery and tools list and replace with safety cutter.</li> <li>Collect back all the existing cutter knives and replace with safety cutter.</li> <li>Workers who cutter knife is require as part of routine process, must wear cut-resistant gloves and sleeves to protect your hands and arms.</li> <li>Remind the worker that using utility knives to pry loose objects is prohibited.</li> <li>Add instruction of how to use the safety cutter to Safety training material for New Staff Orientation and production worker's work instruction.</li> </ul>
Walk into machine	<ul style="list-style-type: none"> <li>Human failure</li> <li>Improper workplace / process management</li> </ul>	<ul style="list-style-type: none"> <li>Workers at the critical station were requested to out from machine at the break (3 breaks a day)</li> <li>Conduct a facility safety audit</li> <li>Provide safety training to all the worker work at the defined critical station.</li> <li>Establish a safety rout path with signs and paints</li> </ul>
Chemical injury	<ul style="list-style-type: none"> <li>Human failure</li> </ul>	<ul style="list-style-type: none"> <li>Workers at the critical station were requested to out from machine at the break (3 breaks a day)</li> <li>Line leader and supervisors were request to check their worker's PPE application before the working hours.</li> <li>Re-train the PPE training to injured workers.</li> </ul>
Being pinched by machine	<ul style="list-style-type: none"> <li>Human failure</li> <li>Improper tools/ equipment</li> </ul>	<ul style="list-style-type: none"> <li>Workers at the critical station were requested to out from machine at the break (3 breaks a day)</li> <li>Conduct a facility safety audit</li> <li>Replace typical pincher machine with hydraulic machine.</li> </ul>

For our worker's work-related injury, Delta fully take responsibility in our worker's medical expense, remedy action hand facilitate them for compensation from the Social Security Office accordingly.



# OHS Training

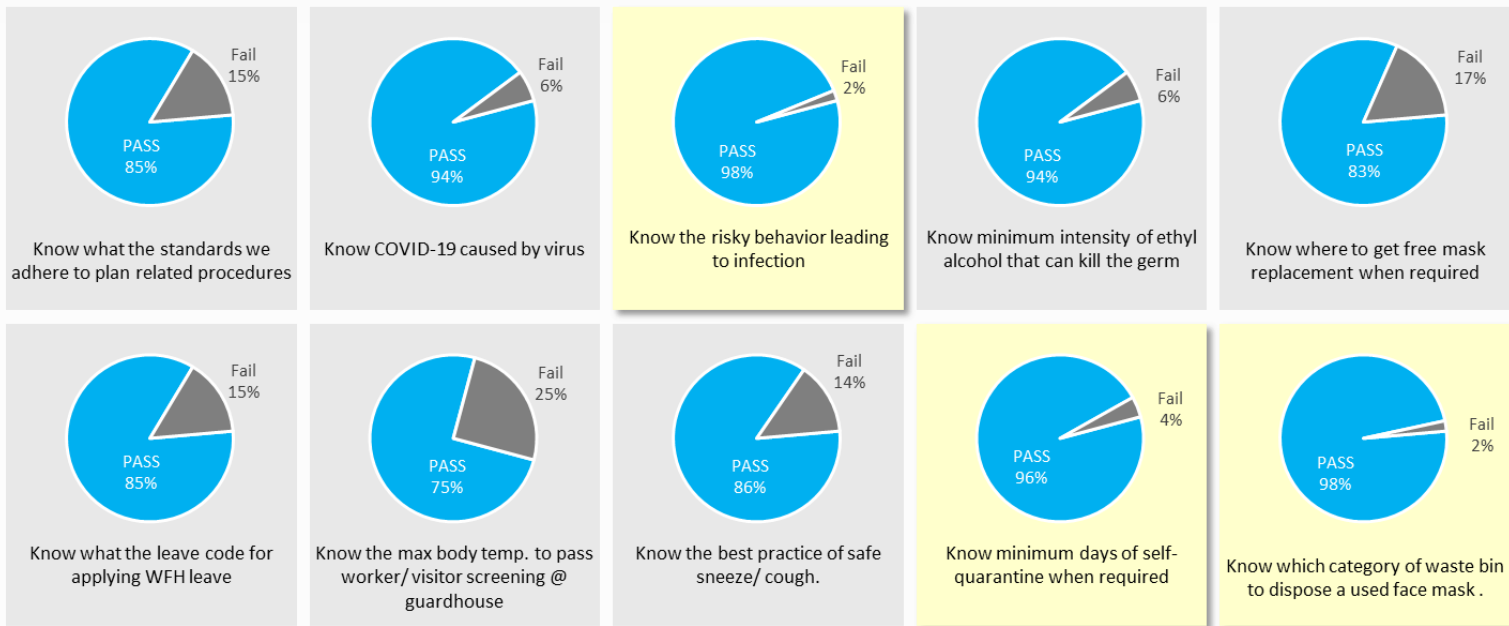
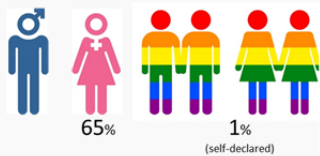
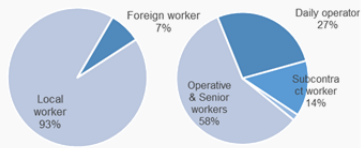
To ensure safety, health and environment related negative impacts either for Delta employees or our surrounded community has systematically mitigated, and reporting directly to the highest management in charge. In2020, 20.5% of total 213,175 learning hours were occupational health and safety training hours. 100% of the training were provided free of charge while 88% were provided during paid hours. For exact specific or certified course, we sponsored our worker for transportation fee, training material expense, enrollment expense and examination fee. In 43,700 hours, 18% of this learning hours required the participants to achieve 80% score to pass the post-test. Finally, 100% of these participants met the requirement of the training course.

Due the COVID-19 crisis, Delta use various approaches to ensure healthiness and safety for our worker and stakeholders at our sites. We utilize Safety and Energy Week activity, hourly announcement, Safety & education-line training, live training via conference application, on-site demonstration, instruction poster and bulletin board to fasten the training process to response to COVID-19. To ensure our workers' understanding to the measurement we communicate, The Delta Anti-epidemic Taskforces team perform a sampling test, the result of the test can be illustrated as following:

**Total  
324  
Participants**

AGE distribution

Max	54
Min	22
Mean	34
Median	34
Mode	25







## Eco-friendly habit cultivation

Delta corporate social responsibility commitment does not mean only natural resources saving in our operation process, but also our the devotion to the progress of human culture and technology, the development of society and the economy, as well as the sustainable development of the Earth and its environment. From manufacturing-based practices, the result of our sustainable practice had embedded into every single actions at Delta in both organization and individual level.

### 1. Eco-friendly work environment

Delta's work environment and facilities are not only managed for employee's safety, health and well-being, we also manage our work environment to minimize waste and pollution which may occur from our daily personal life too. Green purchasing products and services that cause minimal adverse environmental impacts. It incorporates human health and environmental concerns into the search for high quality products and services at competitive prices. In 2019, 68% of 194 million baht of our spending solar power and burn in recycling system, 20% was spent for energy star computing devices and testing equipment, 11% spent for high efficiency chiller while another 9% had spent for paper from responsible sources and process, green printing ink, eco-friendly cleaning agent and LED lighting.

Delta HQ (LEED Green Building) invested over 10M Baht to renovate the lobby with the objectives to create an environment to remind our employees about energy and environmental conservations and encourage communications and collaborations. The highly connected lobby provide USB charging points, vertical gardens, ample comfortable discussion areas and demonstrations of Delta energy management. In addition to greener environment, Delta applied its high-efficiency renewable energy, surveillance, networking, display and automation products and solutions to this co-working space to showcase our visitor. To trim down digital divide , free wifi is accessible for all employee and visitor by simply applying OTP for security protection.



## 2. Extension of staff useful life

Next to transparency, eco-efficient lifestyle turns to be everyone's norm at Delta. We realized decline trend of cash donation request to SD Committee while the trend of circular economy initiative to optimize stuff usage was higher. Various activities had initiated and run by our employees while SD committee and the company played supporting role for sundry facilitations backup. Following are sample of key activities to extend usage of stuff in collaborative manner.



February 26, 2020- Delta Electronics (Thailand) PCL. visited the Bangkok School for the Blind in Rajavithi, Thailand to deliver used calendars donated by Delta employees for reuse as braille books. Mr. Thanayot Samanvorakij, Delta Component Senior Engineer, represented the Delta volunteers to distribute approximately 500 donated calendars to over 150 students at the school. Ms. Jittama Loysanguan, Educational Technology Center for the Blind Public Relations Officer, represented the school to receive the used calendars for printing Thai braille encyclopedias. The Educational Technology Center for the Blind produces a variety of media for distribution to 293 Centers for the Blind in Thailand



May 21, 2020 – Delta in collaboration with the labor union donate 0 net book desk and renovate Bann Khun Samut School's classroom. Resulting from our ergonomic office renovation initiative, we have a balance stock of used office chairs and tables at some work stations. Though we allow our employees to take their old chair and table back home, we still had big lot balance of these used office supplies. The labor unions offered their help to distribute the stuff to schools in rural areas. Finally, 6 schools in Samutprakarn, Ratchaburi and Nan have received free stuff for better classroom for their children.

## 3. Regeneration of natural systems

In addition to well-managed integrative process, location and transportation, water efficiency, energy and atmosphere, material and resources, indoor environment quality, innovation and regional priority, Sustainable site is another significant factor that drive Delta to the first manufacturing factory with LEED EBOM certified From LEED standard, Delta had learned importance of native plants that provide shelter and food. On the other hand, native plants are the determining factor for what local birds, insects, and animals can live within the community. During 2017-2020, Delta replaced its ornament plants by local plants Turf area had limited to 25% of the total vegetated onsite area. Though the

company does not use water as its manufacturing factor, our awareness of water conservation had raised frequently by our investors. Since 2018, the company had consolidates information about water risk at our major operation areas. The study is not only a power tool for us to plan water conservation resources and activities, but also urge us to think about potential indirect impact that we might create to the society and environment.



Since Delta's headquarter is based in Samutprakarn, one of the coastal provinces located along the Gulf of Thailand. We are well aware that mangrove forests are highly diverse coastal ecosystems that that play a crucial role as a nursery for marine life, thus ensuring bountiful fishing in the future. Without waste water from our production process discharged to public water basin and well-control of emission, the company collaborate with Bangpoo Industrial Estate to reforest Bangpoo coastal mangrove forest yearly. In 2019, 62 Delta employees joined 1,500 participants to reforest Avicennia alba at Bangpoo Recreation Center. Bangpoo Industrial Estate organize this activity annually to sustain coastal ecosystem and biodiversity with collaboration from business and local communities.







#### 4. Sharing best practices

Internal communication is vital for Delta as it enables exchange of information within our organization. Information sharing can also foster a healthy relationship between two or various parties and improve our business performance across the board. Delta Thailand's labor union has established in 1998 to represent its employees and to encourage effective information exchange between Delta's Employees and Management through various communication channels. This approach does not only promote the participation of multiple parties in collaboratively solving issues, but it also strengthens our unity and contributes to our growth. Delta uses Intranet to communicate with the Employees via our internal portal where information about Delta including its subsidiaries and Delta Group in both local language and English can be accessed and speedy top-down information transfer is possible.

In addition to the Company's information, Employees can find out about latest announcements, policies, updates, good practices, code of ethics, guidelines and specific technical information for self-learning on the Intranet. For the convenience of our Employees, Delta's Office Automation (OA system) is accessible through our Intranet to provide an easy-to-access platform for various types of employee benefits offered, such as leave requisition, medical expense reimbursement and travel claim. In addition, since 2016 the company has established its official Facebook page and official Youtube channel to be alternative communication channels for the company's personnel and our business related parties which can be easily accessed. ESG stories, business move, events and CSR activities can be access easily by our internal and external stakeholders. From 1 January to 31 December 2020, our facebook posts reached 15,055 organic reaches by our employee and stakeholders.

In addition to one-way communication, periodical face-toface activities like Safety Week and SD week had organized more frequent. Since 2019, SD team initiate DETtalk activity to encourage our employee to share their simple ideas for a better tomorrow to their friends. The 3 finalists did their speech in person for the judge panels ad 90 on-site audiences on 24 November 2020 at DET5 conference hall. The speech time limit was 10-15 minutes. There are no restrictions for media or presentation methods during the speech.

In 2020, the 3 winners from DETtalk activities donates their monetary awards to support employee's affinity group. The donated 6,000 baht was utilize for renovate a kindergarten class room in rural area .





# Employee Retention

According to Delta's fair employment policy, happy workplace policy and various program to ensure our skilled personnel with eco-efficient awareness will be with us in long term, Delta organize the first Global Employee Engagement Survey in 2018. With 100% coverage, the standard method survey had conducted by renowned external consultancy to provide independent and fair analysis. From basic survey regarding Delta Thailand's employees' satisfaction on their work environment infrastructure which cover 28% of global employee in 2014 and 70% since 2016 , We target to expand the survey coverage to its subsidiary in Slovakia, India and South East Asia business units to meet 100% in 2020. However, this 100% target has met since 2018

The objective of the survey had adjusted to realize its employees' understanding in the company and employee's value, ideals and team-work which reflect their willingness to stay with us in long-term. For timely response to employee's expectation, Delta plan to conduct this survey every 2 year to retain our healthy retention rate. From our latest study employee retention rate is significantly relative to the company's strong return of human capital rate at 6.5 in average in past 3 years.

In 2020, Delta utilizes a [third party engagement methodology and software](#) to engage 1,817 employees from Delta Thailand and 2,840 colleagues from our subsidiaries in India, Slovakia and and South East Asia or 41% of Delta Thailand's global staff or 100% had actively engaged. Ratio of male to female of participant were 57:43 accordingly to staff's gender diversity proportion. According to our invitation list, approximately 95% of the participants are Asian while another 5% are European and Australian. These staffs' year of service, function and nature of their business unit's business had considered as selection criterion as well. 9.25% was the proportion of middle management, 6.55 for supervisor and junior management who participate this survey, 90% were operative and senior operative staff while 0.55% of this pool were working in senior management level.

From 5 point scale, where 4-5 are considered "actively engaged", result of the total 14 categories of 48 questions, scores of all category was higher than 2018. When compared with other companies in South-east Asia, our favorable score in 11 categories were higher than the norm. 3 category of favorable score is lower that norm in SEA in no significant level. These score and in-depth analysis had reported to the CEO, Sustainable Development Committee. Thereafter, the result had discussed and followed up closely by Delta's executives.



	Total Favorable Score	Thailand 2018 (1,817)	Southeast Asia Norm (148,874)
Engagement	83	15*	-2*
Retention	74	n/a	9*
Understanding	90	17*	2*
Inclusion	82	15*	4*
Inspiration	88	16*	2*
Organization	85	15*	4*
Voice	82	16*	2
Drive	86	2	13*
Fair Pay	65	16*	10*
Capability	81	24*	-1
Growth	74	12*	2
Support	81	12*	1
Collaboration	84	19*	1
Trust	78	13*	-1

## Categories vs. Benchmarks

2020 Thailand (1,815)





In spite of competitive turnover rate compared to industry peers at 6.1 in 2020, Delta keeps monitoring the reason why our employees made their decision to go.

In 2020, 100% of leavers are voluntary turnover. As every single reason of leaving does matter for effective management of human resources, 2020 exit interview information had collected accordingly. When over 50 years-old retired leavers and headcount of dismissal for disciplinary reasons is not considered.

From exit interview and questionnaire, in 2020 , It is found that 20% of our employees enjoy the company's fair early retirement program. Another 34% found their potential from gained knowledge and experiences, they challenges themselves with new career and their own business. 29% of leavers made decision to back to hometown and take care of their family, 8% continue their study for higher degree, 3% of this group of leavers need time for taking care of their health issues while another 6% reserved their right to refuse to answer the exit questionnaire.



# Inclusive well-being

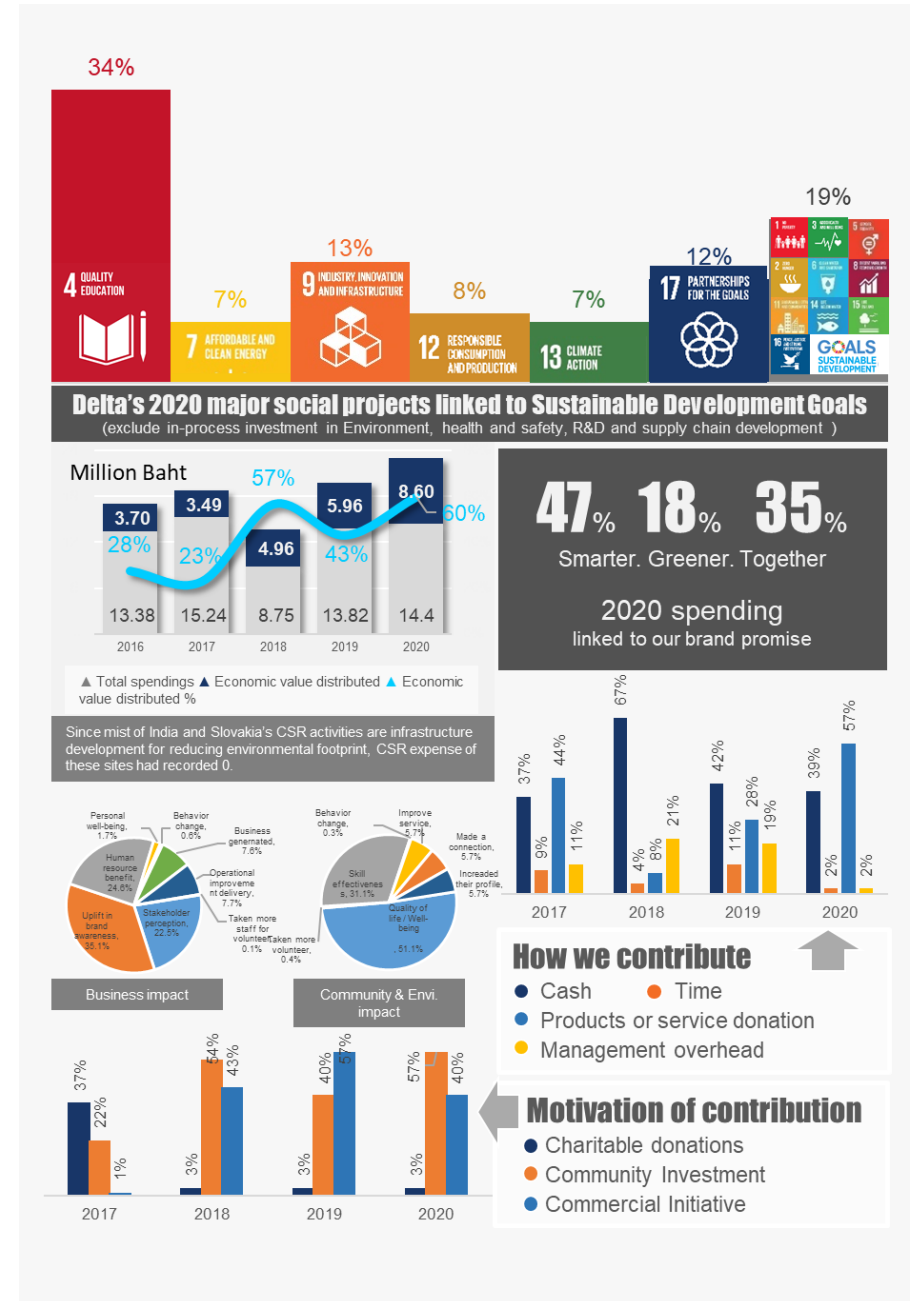
Delta Thailand, as an active corporate citizen, carries specialism of making smarter and greener life on its social responsibilities through various CSR activities, projects, and programs which our catering to the needs of its stakeholders. In addition to continuous effort to take care of its customers, employees, suppliers, creditors, societies and environment simultaneously with fair competition to our competitors accordingly to the Company's Fair Treatment Policy; Delta Thailand broaden our effort to enrich its corporate citizenship in equivalent view and extended view accordingly to the UN Sustainable Development Goals guidance. Hence, the Company's CSR activities has developed, more impact to larger group of stakeholder and more in-line with external society's directions.

Since 2018, Delta management and SD team have realized that the years of efforts invested in SD have reached a milestone especially with the recognition by Dow Jones Sustainability Indices' outstanding assessment results. Therefore, Delta has derived a more focused strategy that will align our corporate mission and brand promise (Smarter. Greener. Together. with all of the company's SD endeavors. This will ensure a clear and consistent message and action reaching and influencing every level of employees in the company.

To amplify our effort to mitigate global agenda of climate change, Delta disseminate its innovation to and eco-efficient operation expertise to navigate greener communities by make it ; Smarter- Creating innovations that will benefit the society and environment; Greener- energy and environmental conservation and; Together- actively work with our stakeholders for a better tomorrow.

Quality education, affordable and clean energy, industry innovation and infrastructure, responsible consumption and production and partnership to sustainability had taken as our prioritized goals based on our core competence. In 2020, in spite of the economic disruption by COVID-19, Delta Thailand contributed approximately 14.4 million Baht which increased 4.4% from 13.8 million Baht in 2019 as measured by the [London Benchmarking Group's LBG](#) Model and [B4SI-CCI](#) guidelines.

60% of the reported amount had contributed to the local and national communities to enhance industry innovation, eco-efficient living and climate action initiatives. This is made up of 41.5% cash donations, (charitable and other donations), and 58.5% non-cash donations, (which include employee time, in kind donations, and certain management costs). Up to the reporting period, there was no non-compliance concerning sponsorship of these programs. Full list of our [2019](#) and [2020](#) philanthropic programs with their input output and impact evaluation is available at our website.





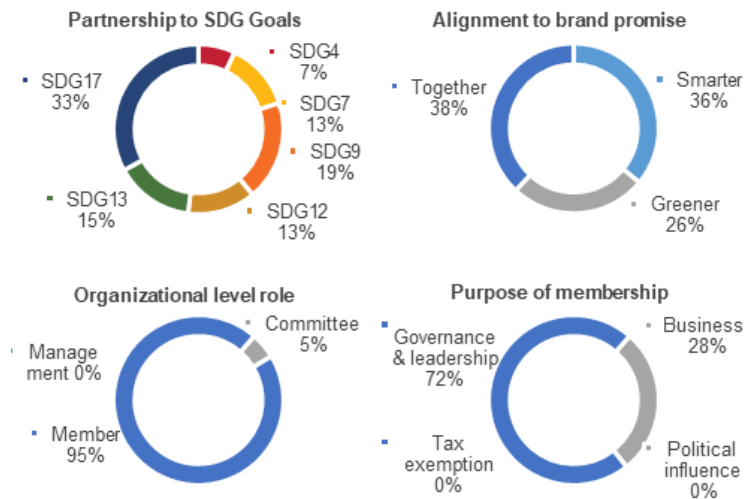
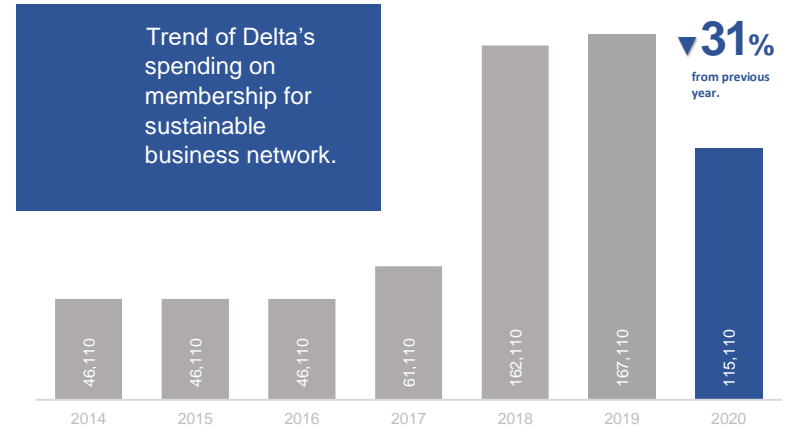
# Participation and membership

Delta Electronics (Thailand) PCL. emphasizes its mission with our succinct brand promise “Smarter. Greener. Together.” that encompasses our spirit of responsibility in every aspect of our business practice. To actively respond to sustainable development in our business process and affirm our substantive achievements in long-term goal, Delta maintains regular membership status with leading organizations at a corporate level.

To create positive impact through business transparency, we disclose our direct and indirect spending, contributions and payment to our business network annually. Delta strives to operate its business with political neutrality, not participating or siding with any political party or influential political leader and not using the Company's capital or resources to support political parties or politicians directly or indirectly.

In 2020, Delta Thailand's total contributions and spending for association memberships was 115,110 Thai Baht decreasing 31% compared with 2019. The major purpose of this spending was to exchange information and advocate on material emerging trends, climate change and innovation issues and sustainable development matters. These contributions are in line with our brand promise “Smarter. Greener. Together.” at 36%, 26% and 38% for each pillar respectively. The subscribed business networks help us to strengthen our capability to achieve our publicly committed Sustainable Development goals; SDG4, SDG7, SDG9, SDG12, SDG13 and SDG7. In addition, 28% of spending goes to business related associations while 72% goes to governance and leadership enhancement as well as sustainable development related associations. None of our expenses are for political or tax exemption purposes.

In 2020, 100% of our spending was for annual membership renewal fees. The company did not sponsor any new membership-related activities in 2020. On an organization-level, 95% of spending was to maintain Delta's membership while another 5% was for membership fees to enhance the company's role as the committee of our associations. Delta's major role and responsibility as the committee of these network is to provide our input and engage industry partners to boost knowledge sharing among our industry peers.



▶ **100%** of our spending in 2020 was routine membership fee without activity sponsorship, in-kind contribution & other spending by the same mean



## Overview of Delta's membership status in 2020

Item	Organization / Network	Alignment with Brand promise			Alignment with our committed SDG goals						Organizational level role			Membership purpose				Type of spending				
		Smarter	Greener	Together	4	7	8	12	13	17	Management	Committee	Member	Business	Politic	Tax exemption	Governance and leadership related	One time membership fee	Routine membership due	Activity sponsorship	In-kind contribution	Others
1	Bangpoo Industrial Society	-	-	•	-	-	•	-	-	•	-	-	•	-	-	-	•	-	•	-	-	-
2	CONNEX ED	•	-	•	•	-	•	-	-	•	-	-	•	-	-	-	•	-	-	-	-	-
3	Electricity Vehicle Association of Thailand	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	•	-	•	-	-	-
4	Happy Workplace Network	•	•	•	-	-	-	-	-	•	-	-	•	-	-	-	•	-	-	-	-	-
5	Safety and Health at Work Promotion Association (Thailand)	•	-	•	-	-	•	-	•	•	-	-	•	-	-	-	•	-	•	-	-	-
6	SDG-Friendly Business	•	•	•	-	-	-	-	-	•	-	-	•	-	-	-	•	-	-	-	-	-
7	Sustainability Disclosure Community	•	•	•	-	-	-	-	-	•	-	-	•	-	-	-	•	-	-	-	-	-
8	Thai Autopart Manufacturers Association	•	•	•	-	•	•	•	•	•	-	-	•	•	-	-	•	-	•	-	-	-
9	Thai Automotive Institute	•	•	•	-	•	•	•	•	•	-	-	•	•	-	-	•	-	-	-	-	-
10	Thai Breastfeeding Center Foundation	•	-	•	-	-	-	-	-	•	-	-	•	-	-	-	•	-	-	-	-	-
11	Thai Chamber of Commerce	•	•	•	-	•	•	•	•	•	-	-	•	-	-	-	•	-	•	-	-	-
12	Thai Institute of Directors	•	-	•	-	-	-	-	-	•	-	-	•	-	-	-	•	-	•	-	-	-
13	Thai IoT Association	•	•	•	•	•	•	•	•	•	-	•	•	•	-	-	•	-	•	-	-	-
14	Thai Listed Company Association	•	•	•	-	-	-	-	-	•	-	-	•	-	-	-	•	-	•	-	-	-
15	Thai Photovoltaic Association	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	•	-	•	-	-	-
16	Thailand Responsible Business Network	•	•	•	-	-	-	-	-	•	-	-	•	-	-	-	•	-	-	-	-	-
17	Thailand's productivity Institute	•	•	•	-	•	•	•	•	•	-	-	•	•	-	-	•	-	-	-	-	-
18	Thai Private Sector Collective Action against Corruption	•	-	•	-	-	-	-	-	•	-	-	•	•	-	-	•	-	-	-	-	-

### Remarks:

1. The expenses reported above are annual membership fees compiled from Delta Thailand and its subsidiaries recorded in the SAP system as:



- a. Dues and member fee expenses
  - b. CSR support / donations
  - c. Other related activities expense as remark in expense reimbursement form with official invoice and receipt attached such as entertainment expenses, printing and copy expenses, travel expenses and legal fees.
2. Delta monitors and feedbacks these expenses to each cost center owner on a monthly basis. Each year, Delta Thailand Group's total membership and donation expenses are compiled and reported to the Chairman of Sustainable Development and Corporate Governance Committee.
  3. Delta's payment and reimbursement system module is designed in accordance with Thai Financial Reporting Standard (revise 2017) which aims at alignment with the corresponding International Financial Reporting Standard.
  4. None of these amounts are paid for lobbying, tax exemption, interest representation or similar purposes.
  5. Delta does not have any payment to local, regional or national political campaigns / organizations / candidates.

All the stated organizations are located in Thailand where Delta generates approximately 76% of its total revenue (2019 financial statement). Membership fees occurring at our subsidiaries in others countries (another 24%) is not related to the scope of this report since they are the membership fees to maintain routine consumables and services.







## We learn and Share

According to our commitment to invest innovation and research, develop intellectual property rights, and devote ourselves to the progress of human culture and technology, the development of society and the economy, as well as the sustainable development of the Earth and its environment, Delta has performed various activities to disseminate what we've learned from our long journey in ITC Industry. On the contrary, Delta realized that communities sustain innovation because as they share ideas they can mutate and grow, especially as they adapt to new conditions. From both business and non-business simple visits, projects and discussion, we have learned what we can do more to balance our passion for betterment with the communities' requirement.

Delta Electronics (Thailand) Public Company Limited, developed the Delta Energy Education Program (DEEP) to build awareness of energy and environment conservation. The program targets elementary students nearby Delta's Bang Poo factory, some of whom are Delta employees' children.

During the reporting period, we added a new activity to enhance children's participation in product and service design. This activity allowed the students to share their idea of where an EV charger should be available and their favorable design of EV charger they love to see. Finally, there were 36 EV charger designs submitted. The name and contact of the designers and caregivers had voluntarily collected in case we may use these designs for marketing purposes in the future.

Due to the COVID-19 pandemic, we missed our target to hit 12,000 learning hours to safeguard the children from the risk of disease infection. In 2020, with strong support from 17 Delta volunteers (accumulated 120) created 1,312 training hours. In addition to quantitative measurement, a simple questionnaire was designed to get qualitative achievement from participated student feedback. The impressive result from 982 students sampling size at confidence response rate 98% interval 5 expresses that 93% of participated students will disseminate the gained knowledge to their family and friends, 93% will adopt the gained knowledge to their daily life, 97% appreciate the volunteer's kind and polite approaches and the information of their right to opt out. Finally, the children's overall satisfaction is 94%. From students' comment of 2020 activity, 2.2% of these children were interested in having our renewable products and solutions at home.







January 30-February 1, 2020- Delta Electronics (Thailand) PCL. showcased its original industrial automation solutions used to train Delta automation academy students in Industry 4.0 manufacturing applications at the King Mongkut's University of Technology North Bangkok (KMUTNB) Engineer Innovation Showcase 2020.



February 5, 2020-Delta Electronics (Thailand) PCL. welcomed a Department of Public Health and Environment of Praksa Municipality and Bangpoo Industrial Estates in Thailand (IEAT) official delegation to observe Delta's health and safety actions to prevent the outbreak of the new Coronavirus.



March 9, 2020 – Delta Electronics (Thailand) PCL. donated a Vivitek NovoTouch LK8630i 86" to the Faculty of Engineering at King Mongkut's University of Technology North Bangkok (KMUTNB). The interactive display solution aims to enhance the learning experience for students at the faculty's Delta Industrial Automation Laboratory.



April 13, 2020- Delta Electronics (Thailand) PCL. donated 10,500 of its original high-efficiency DC brushless blowers to the Board of Investment (BOI) and the Thai government to support the domestic development and production of a Powered Air Purifying Respirator (PAPR) and Personal Protective Equipment (PPE) for Thailand's frontline COVID-19 medical personnel.



April 23, 2020 – Delta Electronics (Thailand) PCL. donated 200 protective face shields for frontline medical personnel and 100,000 THB to the Samutprakarn Hospital for COVID-19 protective equipment.



May 12, 2020–Delta Electronics (Thailand) PCL. and the Thai Marine Police Division held a joint blood donation activity to support Siriraj Hospital. A total of 93 volunteers from Delta and the marine police forces donated blood for the Siriraj Hospital blood bank at the Thai Marine Police Division in Samutprakarn







May 25, 2020–Delta Electronics (Thailand) PCL. held a special blood donation activity for the Thai Red Cross Society to support the country and save lives during the COVID-19 crisis. A total of 234 employees volunteered to donate blood at the activity held in Delta’s Bangpoo headquarters.



Delta Electronics (Thailand) PCL. held a special industrial automation training workshop for a group of 11 officials from the Ministry of Industry Department of Industrial Works (DIW). Held at the Delta headquarters, the workshop aimed to train local industry experts in Delta’s efficient and practical industrial automation solutions that boost the competitive performance of Thailand’s entrepreneurs and enterprises.



July 13, 2020– Delta Electronics (Thailand) PCL. welcomed Thailand’s Minister of Industry to its smart factory and green building headquarters in Bangpoo. The Minister of Industry visited Delta for an in-depth view of the company’s community work, innovative solutions and to meet local enterprises supported by Delta and the ministry’s Department of Industrial Promotion (DIP).



July 31, 2020 – Delta Electronics (Thailand) PCL. and the Thailand Board of Investment (BOI), collaborated to support Thai suppliers by holding a business matching event at Delta’s Bangpoo headquarters. The event aimed to match Delta Thailand with qualified Thai vendors and suppliers and seek opportunities for collaboration to support Thai businesses. This initiative is part

of the Industry Linkage Development Division’s new E-Linkage campaign under the BOI to support Thailand’s economic recovery and Thai manufacturers facing new normal era challenges.



August 20, 2020– Delta Electronics (Thailand) PCL. held its annual Safety and Energy Week to raise employee awareness and celebrate the company’s recent achievements in workplace safety, environment conservation and energy saving for the new normal.

With the success of Delta Thailand’s COVID-19 prevention measures, the company continues its annual activities to promote safety and energy awareness. Leading up to the event, employees at each plant participated in a series of themed contests including:

- An employee video contest on the theme: “Let’s save energy and our environment!”
- Employee safety awareness activities including:
- An art contest on the theme: “A Happy Workplace to Beat COVID-19”
- An invention contest on the theme: “Creative Recycling Inventions to Combat Global Warming”
- A workplace risk troubleshooting contest with the theme: “Machine Risk Finding”







August 24, 2020– Delta Electronics (Thailand) PCL. hosted a delegation from the Thailand Board of Investment (BOI), Industrial Estate Authority of Thailand (IEAT) and local government to discuss the Big Brother and Delta Angel Fund for Startups projects which Delta conducts in collaboration with the Ministry of Industry's Department of Industrial Promotion (DIP).



Delta awarded the scholarships at two ceremonies held at the Chiang Mai Yunnan Association and The Yunnan Association of Thailand Chiang Rai Branch. Due to this year's COVID-19 pandemic, only 100 sponsorship recipients participated in each award ceremony.



September 2, 2020 - Delta Electronics (Thailand) PCL. and Burapha University signed an MOU for partnership and collaboration to develop an English language competency criteria for workforce development in the Eastern Economic Corridor (EEC). The collaboration includes the development of an English language continuing education program for Delta employees in EEC. Delta has an EEC manufacturing and R&D Center located in the Wellgrow Industrial Estate, Chachoengsao.



November 23, 2020-Delta Electronics (Thailand) PCL. opened the Innovation Engineering Co-working Space at King Mongkut's Institute of Technology Ladkrabang (KMITL) and donated new Delta robots, industrial automation equipment and interactive display products to the Delta Industrial Automation Lab at the KMITL Faculty of Engineering.



"Delta's DC fan donation is an excellent example of cooperation from all sectors in Thai society to turn crisis into an opportunity to develop know-how and produce critical equipment for our medical personnel."

Our stakeholder says

**Dr. Suvit Maesincee**  
Minister of Higher Education, Science,  
Research and Innovation



## Your satisfaction, our pride

Paradigm shift in sustainability requirement turns to be a new normal for long-term business relationship. From the changing scenario of global business, 4Ps (Product, Price, Place and Promotion) are not sufficient customer satisfaction and loyalty.

Plenty of non-financial dialogues between Delta and its world-class customers had opened in recent year. In 2020, Delta's sales representative and Sustainable Development Office receives a numbers of questionnaire from the company's customer. Code of conduct, Anti-corruption progress, human rights in supply, hazardous substance control and environmental management; for instance, had repeatedly engaged by our customers. We also received more frequent query about the COVID-pandemic situation at our sites including the business contingency plan and recovery plan. Customer satisfaction is positioned as the central driving force for all the factors, including Innovation, Quality, Agility and Teamwork accordingly to our corporate culture all Delta family aim for. As a result, Delta is constantly driven to foster world-class standard level not just in product and technology but also in social and environmental inclusiveness to meet expectation.

In 2020, Delta conducted [Customer Satisfaction survey](#) by using on-line questionnaire to ensure our business really suit our customer's needs. We expand the coverage of the survey from approx 78% of consolidated sales (Thailand only) to 100% last year. The candidates had select accordingly to their contribution percentage of Delta's 90% sales revenue in the reporting cycle. With target 1 Bu 1 customer for each region, our selected key customers in APAC, Australia and New Zealand, Europe and America had answer the questions with 100% response rate.

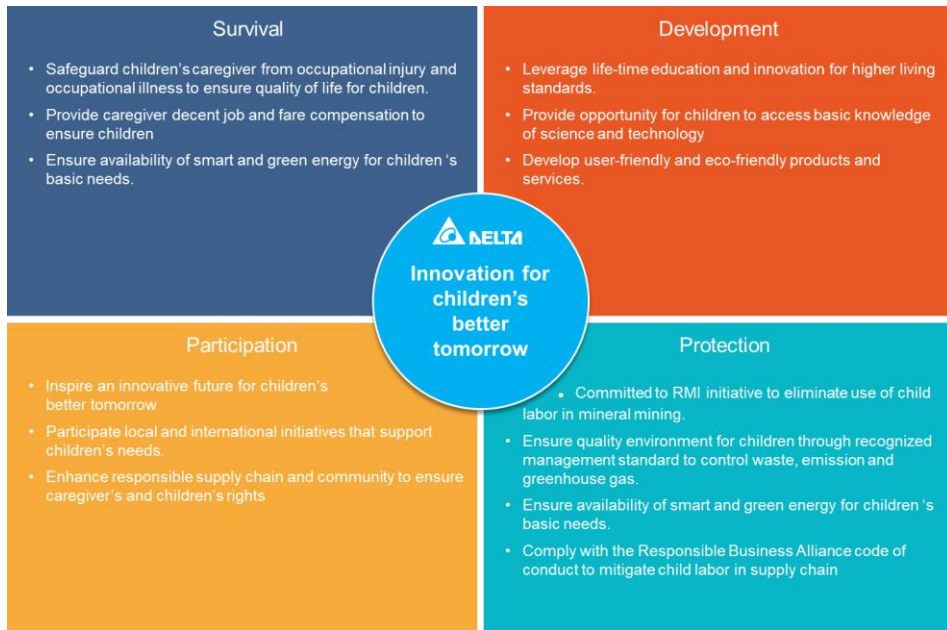
With 80% satisfaction rate as Delta's qualitative target, the survey help to reflect the customer satisfaction level on the company's product, service and business ethics, etc. in different aspect. Meanwhile, there feedbacks from "Other comment" portion, has brought to Sustainable Development Committee, Strategic Marketing, Sales Meeting to seek for further improvement accordingly. Amidst the global outbreak crisis and its high impacted consequence such as port recession, the rising raw material price and immediate policy change in several areas during the first half of 2020 that we conduct the survey, we were able to maintain our satisfaction at 80%.

In addition, it was found that our outstanding customer satisfaction rate correlates with our high customer retention and lifetime value (LTV)\*. From the standpoint of customer satisfaction, Delta gains from value-add to its core competencies, including cost-effectiveness, low service requirements, partnerships for sustainability and business that generates referrals for business growth. To help maintain its steady business growth, Delta has tracked the annual customer retention rate of its top 20 clients since 2014. During this reporting period, the company's annual customer retention rate was an impressive 85%.

Remark: \* Due to customer's privacy and confidentiality agreement, public disclosure of this information is prohibited.







## A Better tomorrow for next Generation

Delta continuously foster better tomorrow for children's lives through the way in which they operate facilities, develop and market products, provide services, and exert influence on economic and social development. As part of our Human Rights Policy, children are our defined vulnerable population who requiring specific attention to guarantee respect for their human rights. Delta provides decent work for young workers, parents and caregivers. We also contribute towards the elimination of child labour, including in all business activities and business relationships. We ensure the protection of children in all business activities and facilities. In the digital era, we Use marketing and advertising that respect and support children's rights. Most of Delta social programs have designed for children to cultivate innovation and awareness of environment conservation. In 2020, our President approved the revised Haman Right policy that Children rights had included. To respect and support children's rights in relation to the environment and security, Delta realize our impact to children while ensure our direction and efforts satisfy the needs of the present without compromising the capacity of their future, we performed self-assessment accordingly to the Unicef's Children's Rights and Business Principle (CRBP) guidance. The result of our assessment has demonstrated as following :

	Stakeholders	Involvement	Issues	Response & Mitigation	Measurement
<p>Workplace</p>	Employee	<ul style="list-style-type: none"> <li>• Employee</li> <li>• Employee's Children</li> <li>• Child labor</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous substance</li> <li>• Human Rights</li> <li>• R&amp;D investment (innovative dissemination)</li> <li>• Labor's rights (COC)</li> <li>• Safety Guard leverage</li> <li>• <b>Responsible Business Alliance code of conduct</b></li> </ul>	<ul style="list-style-type: none"> <li>• Children's rights as part of our Human rights policy</li> <li>• Happy workplace program for employee's family life balance</li> <li>• DEEP (DELTA Energy Education Program)</li> <li>• Education fund for employee's family</li> <li>• DELTA CUP</li> <li>• Informed decision label</li> <li>• Compliance to Responsible Business Alliance code of conduct</li> <li>• <b>Use raw material from the countries where child labor is prohibited</b></li> </ul>	<ul style="list-style-type: none"> <li>• Successor retention rate</li> <li>• Number of new employees from referral program.</li> </ul>
	Supplier	<ul style="list-style-type: none"> <li>• Child labor</li> </ul>			
<p>Marketplace</p>	Consumer	<ul style="list-style-type: none"> <li>• Children as future users and trend setter</li> </ul>	<ul style="list-style-type: none"> <li>• Customer requirement</li> <li>• Safety Guard embedded in products and service</li> <li>• R&amp;D investment</li> <li>• Information securities standards for product and service.</li> <li>• Technology product that easy for recycling</li> <li>• Technology literacy</li> <li>• Children's privacy</li> </ul>	<ul style="list-style-type: none"> <li>• ISO 27001 complied</li> <li>• WEEE complied</li> <li>• DEEP (DELTA Energy Education Program)</li> <li>• Product safety standard verification</li> <li>• Clear product labelling and instruction for proper safety and environment management</li> <li>• Delta industrial automation Academy</li> <li>• Industrial Automation Lab and Industrial Automation kits fair-price for local universities.</li> <li>• Availability of free application and prologic control (PLC) codes for student to download.</li> <li>• Use marketing, advertising and public disclosure that respect Children's rights</li> </ul>	<ul style="list-style-type: none"> <li>• Successor retention rate</li> <li>• Number of Delta Industrial Automation participants</li> </ul>
<p>Community &amp; Environment</p>	Community	<ul style="list-style-type: none"> <li>• Children in local communities and the countries we invest.</li> <li>• Children as "social licensor"</li> </ul>	<ul style="list-style-type: none"> <li>• Safety Guard leverage</li> <li>• Environment, Safety and health</li> <li>• Energy Management System</li> <li>• Land use</li> </ul>	<ul style="list-style-type: none"> <li>• ISO 9000, 14000, 14064, 45001, 50001 complied</li> <li>• Availability of emergency preparedness plan to avoid impact to children in local community.</li> <li>• Invest and operate in well-managed industrial park.</li> <li>• Community/ public relation activity</li> <li>• Open House activity</li> </ul>	<ul style="list-style-type: none"> <li>• 0 compliants</li> <li>• Satisfaction / whistle blowing assessment</li> </ul>





# Awards and Recognitions

both a Thailand-listed company and global corporate citizen, Delta offers long-term value-add to stakeholders that delivers on the company brand promise: Smarter. Greener. Together. The growing list of Sustainability Development recognitions and international standard compliances underscore Delta's continuous improvement and long-term vision for sustainable development.



Delta Electronics (Thailand) PCL. won the prestigious S&P Global Silver Class distinction for excellent sustainability performance in the "Electronic Equipment, Instruments & Components" sector.

## S&P Global SAM Silver Class Sustainability Award 2020

Bangkok, Thailand, January 31, 2020 - Delta Electronics (Thailand) PCL. won the prestigious S&P Global Silver Class distinction for excellent sustainability performance as the only Thailand-based company in the Sustainability Yearbook 2020 "Electronic Equipment, Instruments & Components" sector. This year's recognition comes after Delta Thailand's 2018 RobecoSAM Bronze Class Award and reinforces its position as a global sustainability leader within its industry.



## Excellent Score in 2020 Corporate Governance Report

November 25, 2020– Delta Electronics (Thailand) PCL. maintained an "Excellent" score of 93% in the Corporate Governance Report (CGR) of Thai Listed Companies 2020 for the fifth consecutive year. The Thai Institute of Directors Association (Thai IOD), with support from the Stock Exchange of Thailand (SET), conducts the CGR every year to assess corporate governance practices of Thailand's listed companies.



## Thaipat Institute's ESG100 Universe 2020

August 5, 2020 - Delta Electronics (Thailand) Public Company Limited joins 100 of Thailand's best-performing public listed companies for Environmental, Social and Governance (ESG) aspects in the Thaipat Institute's ESG100 Universe for the 6th consecutive year. Among 803 SET and MAI listed companies assessed by the Thaipat Institute this year, Delta is one of the 100 leading companies chosen for the ESG100:2020 list. Launched in 2015, Thaipat Institute's ESG Rating Unit compiles the ESG100 list based on the guiding principles of the Global Initiative for Sustainability Ratings (GISR). The Thaipat Institute divides the

companies on the ESG100 list into eight categories with Delta among the top companies in the tech category.



## Thaipat Institute's COVID-19 Corporate Health Report

April 20, 2020-Delta Electronics (Thailand) PCL. received an "Excellent" score in the Thaipat Institute's Corporate Health Check Report on COVID-19 for its outstanding response and preventative measures to protect employees and stakeholders.. Thaipat Institute's Corporate Health Check Report on COVID-19 evaluated Thai companies with implemented measures for the recent COVID-19 situation affecting key stakeholders. Delta Thailand's total average score in Thaipat Institute's Corporate Health Check Report on COVID-19 is 4.42 out of 5 or 88.33%. The company received a 5/5 score for its measures to minimize negative impact on employees, customers, regulators and shareholders. Meanwhile, it received a score of 4 and 2.5 for its measures for suppliers and communities, respectively.





### Certified member of the Collective Action against Corruption

April 14, 2020-Delta Electronics (Thailand) PCL. certified in the Thai Private Sector Collective Action against Corruption (CAC) as it joins leading Thai companies to create an ethical business ecosystem with effective policy, certification program and anti-corruption compliance standards.

The CAC is the sole collective action initiated by the Thai private sector to tackle corruption and is one of the region's leading anti-corruption programs. Since its founding, 1,011 companies have joined the CAC and Delta is one of the 433 companies certified for excellent business integrity and acceptable corporate conduct for all stakeholders.



### MSCI Global Standard Indexes List 2020

November 12, 2020 - Delta Electronics (Thailand) PCL. is added to the MSCI Global Standard Indexes following the MSCI 2020 Semi-Annual Index Review. The MSCI index is provided by Morgan Stanley Capital International for use in measuring global equity market performance in leading companies. This is the ninth consecutive year for Delta to win the award organized by the Department of Industrial Works under the Ministry of Industry. The award aims to foster social responsibility among Thai-based factory operators and encourage mutually between industry and the community.



### ASEAN Energy Award 2020

November 24, 2020- Delta Electronics (Thailand) PCL. received the ASEAN Energy Awards 2020, in the Large Industry-Energy Management for Industry Category, from the ASEAN Centre for Energy (ACE) for its successful energy reduction project at the Delta Plant 6 in Wellgrow Industrial Estate.

In addition, Delta Plant 6 is a green factory with 2 MW solar energy capacity installed on the roof for use in operations. From 2017 to 2019, the Delta Energy Management Team conducted 31 energy-

saving projects resulting in 6,962 MWh of energy savings worth USD 827 Million. The plant's Specific Energy Consumption (SEC) exceeded the original plan targets to reach a 35% energy consumption reduction before 2020.



### FTSE4Good Index Series 2020

August 13, 2020 - Delta Electronics (Thailand) PCL. remains in the FTSE4Good Index Series for the fourth consecutive year following the June 2020 index review by global index provider FTSE Russell.

FTSE Russell confirmed that Delta Thailand was independently assessed according to the FTSE4Good criteria, and satisfied the requirements to become a constituent of the FTSE4Good Index Series. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products. As part of the London Stock Exchange Group (LSEG), FTSE Russell's ESG Ratings provide a multi-dimensional measure of environmental, social and governance exposure and practice. Investors can leverage the FTSE4Good Index as a tool for sustainable investment and as a framework for corporate engagement and stewardship.





### Sustainability Disclosure Award 2020

December 22, 2020– Delta Electronics (Thailand) PCL. received the Thaipat Institute Sustainability Disclosure Award 2020 for the third consecutive year in recognition of its excellent public disclosure of company performances and coverage of its Environmental, Social and Governance (ESG) aspects in the Delta Thailand Sustainability Report.



### Thailand Sustainability Investment 2020

December 15, 2020-Delta Electronics (Thailand) PCL. joins the Thailand Sustainability Investment (THSI) 2020 List. This year is

in the sixth consecutive year for Delta to join the SET THSI List. Delta is among 124 SET-listed companies with outstanding performance on Environment, Social and Governance (ESG) aspects to enter the 2020 THSI List. This is up from the 51 companies listed in the inaugural 2015 THSI List.

Among the 124 companies in the 2020 THSI List, 114 are SET-listed companies and 10 companies are on the MAI (Market for Alternative Investment). The 2020 THSI List market capitalization is 9.63 trillion baht as of November 9, 2020, or 67% of the total market capitalization of SET and MAI, which is 14.39 trillion baht.



### Delta Thailand Wins Prime Minister's Industry Award 2020 in the Energy Management Category

Bangkok, Thailand, December 14, 2020-Delta Electronics (Thailand) PCL. received the Prime Minister's Industry Award 2020 in the Energy Management award category in recognition of excellence in energy saving and renewable energy. H.E. General Prayut Chan-o-cha, Prime Minister of the Kingdom of Thailand,

presented the award to Mr. Jackie Chang, Delta President, at this year's awards ceremony held at the Royal Thai Army Club.

This is the sixth year for Delta to win the Prime Minister's Industry Award. The company has won the award in many categories including Productivity, Quality Management and Energy Management in 1995, 2010, 2011 and Potential Industry and CSR in 2018. In 2012, Delta won the Prime Minister's Best Industry Award, which is the highest honor above all other Prime Minister's Industry Award categories.



### 2020 Mercedes-Benz Supplier Performance Excellence Award

Bangkok, Thailand, December 10, 2020-Delta Electronics (Thailand) PCL. received the Supplier Performance Excellence Award by Mercedes-Benz Manufacturing (Thailand) Limited. Delta was among only six elite Thailand-based suppliers of Mercedes-Benz Manufacturing Thailand presented with this highest award in appreciation of continued support of their Thailand manufacturing operations.







### 2020 Moral Business Forum Award

August 18, 2020–Delta Electronics (Thailand) PCL. received the 2020 Moral Business Forum Award from the Moral Business Forum 2020 organized by the Moral Center Thailand (Public Organization) in collaboration with the Thai Health Promotion Foundation and Volunteer Heart Foundation. The 2020 Moral Business Forum Awards recognized Delta among 50 model organizations in Thailand for moral business that leads Thailand through the COVID-19 crisis towards sustainability. The award honors business organizations with good corporate governance and moral business practices for sustainable development supporting Thailand's the national strategy to promote: sufficiency, discipline, honesty and volunteerism.



### Outstanding Management in Work Safety, Health and Environment recognition

September 21, 2020–Delta Electronics (Thailand) PCL. received two safety awards at the Samutprakarn Labour Management Excellence Awards 2020 for outstanding workplace safety and occupational health practice.

The awards by the Department of Labor Protection and Welfare under the Ministry of Labor, aim to recognize Thai companies that demonstrate outstanding management performance and commitment to excellence in the areas of safety, occupational health and environment.



### The Ministry of Industry's CSR-DIW Continuous Awards

November 27, 2020– Delta Electronics (Thailand) PCL. received two 2020 CSR-DIW Continuous Awards from the Department of Industrial Works (DIW), Ministry of Industry for its outstanding continual improvement in sustainability and Corporate Social Responsibility (CSR).

This is the ninth consecutive year for Delta to win the award organized by the Department of Industrial Works under the Ministry of Industry. The award aims to foster social responsibility among Thai-based factory operators and encourage mutually between industry and the community.

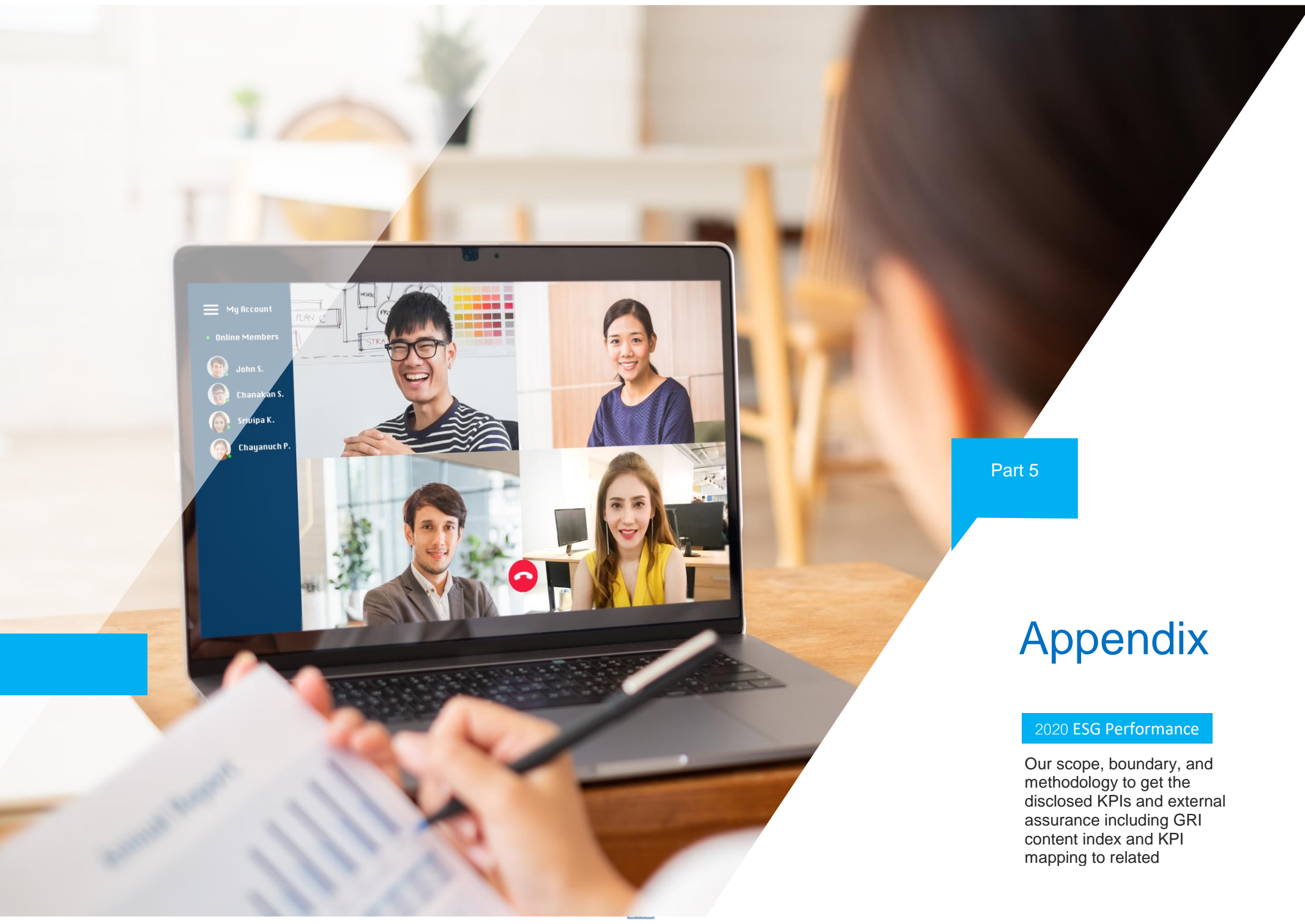


### “Finalist” of 2020 Asia Sustainability Reporting Awards

Delta Electronics (Thailand) PCL. listed as the finalist of the Asia Sustainability Reporting Award 2020 for the first year in recognition of its best materiality reporting and coverage of its strategy to response to stakeholder expectation in Environmental, Social and Governance (ESG) aspects in the Delta Thailand Sustainability Report.

An independent panel of judges reviewed 494 entries received from 17 countries across 19 award categories. After the preliminary evaluations, 102 companies from 14 countries made it to the finals. Intensely contested finals produced 40 winners grabbing 57 gold, silver and bronze medals and a Report of the Year award.





Part 5

# Appendix

## 2020 ESG Performance

Our scope, boundary, and methodology to get the disclosed KPIs and external assurance including GRI content index and KPI mapping to related

# About the report

Delta Electronic (Thailand) Public Company Limited or “Delta Thailand” or “Delta”’s disclosures annually disclose its Sustainable Development report to transparently communicate our continuous effort to ensure our stakeholder mutual benefit. Since our first stand-alone Sustainable development report launched with GRI-G4 standard in 2016, the company keep improve the accuracy of the report until our previous release with GRI Standard in June 2018. To enhance stakeholders’ participation, this report has prepared in two language, English and Thai (local language). Our previous issues of Sustainable development report are publicly available at <https://deltathailand.com/en/download-sd-report>

## Reporting cycle

Annually, in June, Delta Thailand’s annual performance of economic, social, environmental and related achievements between January 1<sup>st</sup> and December 31<sup>th</sup> of 2020.

## Coverage

Delta’s fiscal year is from January to December. The report therefore covers performance over 1 year period, in accordance with the methodology used in [Delta’s 2020 consolidated financial statements](#) that covered a 12-month period. The scope of this report includes Delta and its subsidiaries in **Thailand and its overseas subsidiaries and associates in India and Slovakia** whose nature of business are **manufacturing and assembly factories** that contribute to major revenue (98%) in consolidated financial statement . Social and Environmental performance has been collected from 7 factories in the mentioned 3 countries.

## Reporting standard

This report has been prepared **in accordance with the GRI Standards: Core Option** in both Thai and English. The material issues of this report has been selected as per the Company’s stakeholders’ feedback via our on-line questionnaire published on <https://goo.gl/HKsqeV> , stakeholder engagement log collected by our domain experts, face-to-face random interviews, emerging risk and issues consideration, social media log and media stakeholders analysis. The Company bases on Global Reporting Initiative’s [GRI Standards](#), Dow Jones Sustainability Index, SET Sustainability Awards frameworks, stakeholder interests and emerging issues to identify the questionnaire’s aspects per sustainability context, data collection as well as the report implementation.

The report qualitative and quantitative contents can be obviously indicated with GRI Content Index which shows in the final page after table of Company’s performance. In addition, to boost up both internal and stakeholder participation, Delta add the linkage of this report to related sustainable business practices into its GRI content table. Delta has engaged Lloyd’s Register, an independent third party, to provide external assurance for selected environmental and social indicators and ensure the accuracy and reliability of the data reported herein.





## Restatements of information

There was no major changes resulting from business merger and acquisition, base year change, nature of business nor measurement method during the reporting cycle. Majorly, the following restatements are resulting from reporting or relevant standards update.

- Restatement of recordable work-related injury (LTIFR). Previously, the raw data provider count the case after our worker take 3 days leave. According to ISO 45001 requirement, we count the injury case since day 1 the worker cannot work in normal condition. Finally, we have re-count, re-calculate and restate this KPI from 2017 to 2020.
- The numerical data of water withdrawal by source (GRI 303-3) and subtopics were re-calculated covering Delta's subsidiaries data according to GRI 303: water and effluents version 2018.
- Due to the insufficient Total Dissolved Solids (TDS) data of raw water in 2014-2016, the total third-party water withdrawn (GRI 303-3) was re-calculated from 2017-2020 for data consistency and accuracy.
- The volume of wastewater is assumed to be 80% of Municipal water and transferred to Third-party who provide wastewater treatment services (IEAT: Industrial Estate Authority of Thailand). The numerical data of water discharge (GRI303-4) and subtopics were re-calculated according to GRI 303: water and effluents version 2018 since 2014-2020 to indicate the exact the total volume of discharged water to third-party.
- The volume of water consumption (GRI: 303-5) was re-calculated covering Delta's subsidiaries data according to GRI 303: water and effluents version 2018.
- The numerical data of Waste (GRI: 306) and subtopics were re-calculated and re-arranged 2016-2020 according to GRI 306: waste version 2020.



We value your suggestion for guidance to enable a better tomorrow



# Calculation

**Annual total compensation** = base salary + cash compensation + total fair value of all annual long-term incentives

**Mean compensation of all employees & CEO compensation** =  $\Sigma xi/n$

**Percentage of total employees covered by collective bargaining agreements** = Headcount of labor union member ÷ total employees x 100

**Community investment** = Cash contribution + monetary value of products or stuff donation + man cost + overhead cost.

**Percentage of the procurement budget spent to local supplier** = Spent amount to local suppliers ÷ total spending x 100

**Percentage of recycled input materials used** = Total recycled input materials used ÷ Total input materials used x 100

**Percentage of new suppliers screen by using social criteria** = Total new suppliers screen by using social criteria / total new supplier in the reporting period x 100

**Percentage of new suppliers screen by using environmental criteria** = Total new suppliers screen by using environmental criteria / total new supplier in the reporting period x 100

**Percentage of reclaimed products and their packaging materials** = Products and their packaging materials reclaimed within the reporting period ÷ Products sold within the reporting period x 100

**Total energy consumption within the organization** = Non-renewable fuel consumed + Renewable fuel consumed + Electricity, heating, cooling, and steam purchased for consumption + Self-generated electricity-Electricity, heating, cooling, and steam sold

**Energy intensity**= Total energy consumption ÷ production amount

**Reduction of energy consumption intensity** = Reduction of electricity consumption ÷ production amount

**Requirement of energy of sold products** = Average power consumption of sold product x average power load rate of sold products

**Total GHG emissions (Scope 1 and Scope 2) intensity** = Total GHG emissions (Scope 1 and Scope 2) ÷ production amount

**Total GHG emissions (Scope3) intensity** = Total GHG emissions (Scope3) ÷ production amount

**Total Volatile Organic Compounds intensity (t VOCs)** = Total Volatile Organic Compounds ÷ production amount

**Change in water storage** = Total power consumption of sold products of the reporting period – Total power consumption of sold products at the beginning of the reporting period

**Water consumption** = Total water withdrawal - Total water discharge

**Water consumption intensity** = Total water consumption intensity ÷ production amount

**Total water withdrawal** = Surface water + groundwater + seawater +produced water +third-party water

**Water withdrawal intensity** = Total water withdrawal intensity ÷ production amount

**Ratio of water recycled and reused as a percentage of the total water withdrawal (%)** = (Total of water recycled and reused ÷ Total water withdrawal) x 100

**Total water discharged** = Discharged surface water + groundwater + seawater +produced water + third-party water

**Percentage of suppliers with significant water-related impacts from water discharge that have set minimum standards for the quality of their effluent discharge** = Number of suppliers that have set minimum standards for the quality of their effluent discharge ÷ Number of suppliers with significant water-related impacts from water discharge x 100

**Change in water storage** = Total water storage at the end of the reporting period - Total water storage at the beginning of the reporting period

**Production of ODS** = ODS produced – ODS destroyed by approved technologies – ODS entirely used as feedstock in the manufacture of other chemicals



**Total weight of hazardous waste transported by destination** = Weight of hazardous waste transported to the organization by destination from external sources/ suppliers not owned by the organization + Weight of hazardous waste transported from the organization by destination to external sources/ suppliers not owned by the organization + Weight of hazardous waste transported nationally and internationally by destination between locations owned, leased, or managed by the organization.

**Waste intensity** = Total amount of waste generated ÷ production amount

**Diversion rate of waste (%)** = (Total of Waste diverted ÷ Total amount of waste generated) x 100

**Percentage of suppliers identified as having significant actual and potential negative environmental impacts** = of suppliers identified as having significant actual and potential negative environmental impacts ÷ total numbers of suppliers x 100

**Rate of new employee hires during the reporting period** = Number of new employee hired during the reporting period ÷ total number of employee x 100

**Rate of employee turnover during the reporting period** = Number of employee resigned during the reporting period ÷ total number of employee x 100

**Return to work rate** = Total number of employees that did return to work after parental leave ÷ total number of due to return to work after taking parental leave x 100

**Retention rate** = Total number of employees retained 12 months after returning to work following a period of parental leave x ÷ total

number of employees returning from parental leave in the prior reporting period x 100

**Rate of fatalities as a result of work-related** = Number of fatalities as a result of work-related injury ÷ Number of hours worked x 1,000,000

**Rate of high-consequence work-related injuries (excluding fatalities)** = Number of Work related injuries that the injured worker cannot recover within 6 months (excluding fatalities) ÷ Number of hours worked x 1,000,000

**Rate of recordable work-related injuries** = Number of recordable work-related injuries ÷ Number of hours worked x 1,000,000

**Rate of health illness** = Number of occupational illness confirmed by physician ÷ Number of hours worked x 1,000,000

**Rate of fatalities as a result of work-related** = Number of disease cases as a result of work-related ÷ Number of hours worked x 1,000,000

**Average training hours per employee** = Total number of training hours provided to employees ÷ Total number of employees

**Average training hours per female** = Total number of training hours provided to female employees ÷ Total number of female employees

**Average training hours per male** = Total number of training hours provided to male employees ÷ Total number of male employees

**Average training hours per employee category** = Total number of training hours provided to each category of employees ÷ Total number of FTEs in category

**Percentage of total employees by gender who received a regular performance and career development review during the reporting period** = number of specific gender employee who received a regular performance and career development review during the reporting period ÷ Total number employees of that specific gender x 100

**Percentage of total employees by category who received a regular performance and career development review during the reporting period** = number of specific category employee who received a regular performance and career development review during the reporting period ÷ Total number employees of that specific category x 100

**Ratio of the basic salary and remuneration of women to men for each employee category** = Sum of women employee in specific category ÷ Sum of men employee in that specific category x 100

**Percentage of workers who covered by collective bargaining agreement** = Number of employees who have registered for labor union membership during the reporting period ÷ total number of employee in the reporting period x 100

**Percentage of security personnel who have received formal training in the organization's human rights policies or specific procedures and their application to security** = Number of employees who have received formal training in the organization's human rights policies or specific procedures and their application to security ÷ total number of employee in the reporting period x 100





# LR Independent Assurance Statement

## Relating to Delta Electronics (Thailand) Public Company Limited's Sustainability Report for the calendar 2020

This Assurance Statement has been prepared for Delta Electronics (Thailand) Public Company Limited in accordance with our contract but is intended for the readers of this Report.

### Terms of engagement

Lloyd's Register (LR) was commissioned by Delta Electronics (Thailand) Public Company Limited (DELTA) to provide independent assurance on its Sustainability Report 2020 (the Report) against the assurance criteria below to a moderate level of assurance and at the materiality of the professional judgement of the verifier using AccountAbility's AA1000AS v3 Type 2 approach<sup>1</sup>.

Our assurance engagement covered DELTA's operations and activities in India, Slovakia and Thailand (as Head Office) and specifically the following requirements:

- Evaluating the nature and extent of DELTA's adherence to all three AA1000 AccountAbility Principles - inclusivity, materiality, responsiveness and impact.
  - Confirming that the report is in accordance with GRI Standards and core option including related universal social responsibility standards principles addressed in ISO 26000
  - Reviewing the integrity of DELTA's Mechanisms for advice and concerns about ethics (GRI 102-17)
  - Evaluating the reliability of data and information for the selected economic, environmental and social indicators listed below:
- Economics: Human Capital Return on Investment and Community investment (GRI201-1); Operations assessed for risks related to corruption (GRI205-1); Communication and training about anticorruption policies and procedures (GRI205-2) and Confirmed incidents of corruption and actions taken (GRI205-3).
  - Environmental: Recycled input materials used (GRI301-2); Energy consumption within the organization (GRI302-1); Reduction of energy consumption (GRI 302-4); Water withdrawal (GRI 303-3); Water discharge (GRI 303-4); Water consumptions (GRI303-5); Direct GHG emissions (Scope 1) (GRI305-1); Energy indirect GHG emissions (Scope 2) (GRI305-2); Other indirect GHG emission (GRI305-3) - Transportation of Raw material and Finished Goods (Ocean and Air Freight only) and Transportation of Business trip by Air Freight; Nitrogen oxides (NO<sub>x</sub>), Sulfur oxides (SO<sub>x</sub>) and other significant air emissions (GRI305-7); Waste generated (GRI306-3); Waste directed to disposal (GRI306-4); Waste diverted from disposal (GRI 306-5); New Suppliers that were screened using environmental criteria(GRI308-1).
  - Social: Work-related injuries and Work-related ill health (GRI403-9 and 10); Average hours of training per year per employee (GRI 404-1); Percentage of employee receiving regular performance review (GRI 404-3); Ratio of basic salary and remuneration of women and men (GRI405-2); Operations in which the right to freedom of association and collective bargaining (GRI 407-1); Operations with local community engagement, impact assessments, and development programs (GRI 413-1); New suppliers that were screened using social criteria (GRI414-1).

Our assurance engagement excluded DELTA's data and information of the selected indicators (GRI 201-1, 301-2, 403-9 and 403-10) outside of Thailand

LR's responsibility is only to DELTA. LR disclaims any liability or responsibility to others as explained in the end footnote. DELTA's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of DELTA.

### LR's Opinion

Based on LR's approach nothing has come to our attention that would cause us to believe that DELTA has not, in all material respects:

- Met the requirements above
- Disclosed reliable performance data and information as no errors or omissions were detected
- Covered all the issues that are important to the stakeholders and readers of this report.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

<sup>1</sup> GHG quantification is subject to inherent uncertainty.

**Note:** The extent of evidence-gathering for a moderate level assurance engagement is less than for a high-level assurance engagement. moderate level assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a moderate level assurance engagement is substantially lower than the assurance that would have been obtained had a high-level assurance engagement been performed.

### LR's approach

LR's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing DELTA's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing associated records.
- Reviewing DELTA's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by DELTA and its peers. We also tested the filters used in determining material issues to evaluate whether DELTA makes informed business decisions that may create opportunities that contribute towards sustainable development.
- Auditing DELTA's data management systems to confirm that there were no significant errors, omissions or mis-statements in the Report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems as well as collaborate opinions for other third parties. We also spoke with those key peoples responsible for compiling the data and writing the Report.
- Sampling facilities and consolidated data and information at DELTA's head office.

### Observations

Further observations and findings, made during the assurance engagement, are:

- Stakeholder inclusivity: We are not aware of any key stakeholder groups that have been excluded from DELTA's stakeholder engagement process.
- Materiality: We are not aware of any material issues concerning DELTA's sustainability performance that have been excluded from the Report. DELTA reviews regularly their material issues, against their established and extensive criteria for determining material issues, to reconfirm that their material issues are still relevant. The criteria for determining materiality are not biased to DELTA.
- Responsiveness: DELTA has processes for responding to various stakeholder groups, included establish of GHGs reduction and recycled materials used targets to its clients and stakeholders.
- Reliability: DELTA uses spreadsheets together with ERP to consolidate data and information associated with the selected economic, environmental and social indicators. DELTA should apply periodically internal verification to enhance the data quality and promote awareness of data and information disclosure throughout the operations.
- Impact: DELTA has processes and KPI's to monitor and measure waste disposal as well as injury & ill health. However, DELTA should develop additional quantitative measures for other material issues of concern to stakeholder groups e.g., employees working hours.

### LR's standards, competence and independence

LR ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification is the only work undertaken by LR for DELTA and as such does not compromise our independence or impartiality.

Dated: 25 August 2021



Opart Charuratana  
LR Lead Verifier  
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# GRI Content Index

## Structure:

The structure of this report follows the Global Reporting Initiative's (GRI) "GRI Sustainability Reporting Standards 2020"

## Mapping tools of related initiatives we claimed in this index:

- ISO26000: [GRI G4 Guidelines and ISO 26000:2010 How to use the GRI G4 Guidelines and ISO 26000 in conjunction](#)
- CDP: [Linking GRI and CDP, How are the GRI Sustainability Reporting Standards and CDP's 2017 water questions aligned?](#)
- UNGC: [Making the Connection: Using the GRI G4 Guidelines to Communicate Progress on the UN Global Compact Principles](#)
- SDG: <https://www.globalreporting.org/media/lbvnx15/mapping-sdgs-gri-update-march.pdf>
- CRBP: [Children are everyone's business 2.0](#)

GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives					
					ISO26000	CDP	UNGC	SDG	CRBP	
102-1	Name of the organization	<ul style="list-style-type: none"> <li>This report page 2</li> </ul>			6.4.1, 6.4.2					
102-2	Activities, brands, products, and services	<ul style="list-style-type: none"> <li>This report page 2-16</li> <li><a href="#">Annual Report</a> page 10-36</li> </ul>			6.4.1, 6.4.2					
102-3	Location of headquarters	<ul style="list-style-type: none"> <li>This report page 2, back cover</li> <li><a href="#">Annual Report</a> page 4</li> </ul>			6.4.1, 6.4.2					
102-4	Location of operations	<ul style="list-style-type: none"> <li>This report page 10, 58</li> <li><a href="#">Annual Report</a> page 25-27</li> </ul>			6.4.1, 6.4.2					Principle 1
102-5	Ownership and legal form	<ul style="list-style-type: none"> <li><a href="#">Annual Report</a> page 25-27, 140</li> </ul>			6.4.1, 6.4.2					
102-6	Markets served	<ul style="list-style-type: none"> <li>This report page 2, 10</li> <li><a href="#">Annual Report</a> page 25-27, 184</li> </ul>			6.4.1, 6.4.2					
102-7	Scale of the organization	<ul style="list-style-type: none"> <li>This report page 2, 31, 83</li> <li><a href="#">Annual Report</a> page 4, 8, 9, 72</li> </ul>			4.4, 6.4.1, 6.4.2					
102-8	Information on employees and other workers	This report page 83-85			4.4, 6.4.1, 6.4.2		principle 6	8.5, 10.3		
102-9	Supply chain	This report page 48-54			4.4, 6.4.1, 6.4.2					
102-10	Significant changes to the organization and its supply chain	This report page 9, 50			4.4, 6.4.1, 6.4.2					



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives					
					ISO26000	CDP	UNGC	SDG	CRBP	
102-11	Precautionary Principle or approach	This report page 18-23			4.4, 6.4.1, 6.4.2					Principle 1
102-12	External initiatives	This report page 19, 24, 29, 39, 48, 80, 86, 97, 111,120,131			4.4, 6.4.1, 6.4.2	CC2.3 b , CC2.3c, CC 2.3 d				Principle 1
102-13	Membership of associations	<ul style="list-style-type: none"> <li>This report page 112-113</li> <li><a href="#">Full Major social contribution list</a></li> </ul>			4.4, 6.4.1, 6.4.2					
102-14	Statement from senior decision-maker	This report page 6-7			4.4, 4.7, 6.2	CC2.2, CC2.2a, CC3.1, CC3.1e, CC3.1f				
102-15	Key impacts, risks, and opportunities	This report page 19-22, 27, 52			4.4, 6.2	CC2.1, CC2.1a, CC2.1b, CC2.1c, CC2.2, CC2.2a, CC3.1a, CC3.1b, CC3.1c, CC3.1d, CC3.1e, CC3.1f, CC5.1, CC5.1a, CC5.1b, CC5.1c, CC6.1, CC6.1a, CC6.1b, CC6.1c				Principle 1
102-16	Values, principles, standards, and norms of behavior	<ul style="list-style-type: none"> <li>This report page 5, 35, , 39</li> <li><a href="#">Corporate Governance Policy</a></li> <li><a href="#">Code of Conduct</a></li> <li><a href="#">Anti-corruption policy</a></li> <li><a href="#">Delta's membership on Thai CAC site</a></li> <li><a href="#">Supplier SR Management Measure</a></li> </ul>		✓	4.4		principle 10	16.3		Principle 1
103-1	Explanation of the material topic and its Boundary	This report page 5,35,39		✓	4.4, 5.2					Principle 1
103-2	The management approach and its components	<ul style="list-style-type: none"> <li>This report page 31-39</li> <li><a href="#">Corporate Governance Policy</a></li> <li><a href="#">Anti-corruption Policy</a></li> </ul>		✓	4.4, 5.2					Principle 1
103-3	Evaluation of the management approach	This report page 32,37		✓	4.4, 5.2					Principle 1
102-17	Mechanisms for advice and concerns about ethics	This report page 37		✓	4.4		principle 10	16.3		
102-18	Governance structure	<ul style="list-style-type: none"> <li>This report page 31-34</li> <li><a href="#">Corporate Governance Policy</a></li> <li><a href="#">BOD Competence Matrix</a></li> </ul>			4.4, 6.2	CC1.1, CC1.1a				Principle 1
102-19	Delegating authority	This report page 14-15,26			4.4, 6.2					Principle 1





GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
102-20	Executive-level responsibility for economic, environmental, and social topics	This report page 14-15,26			4.4, 6.2	CC1.1a			Principle 1
102-21	Consulting stakeholders on economic, environmental, and social topics	<ul style="list-style-type: none"> <li>This report page 19-21,50,52,98-101</li> <li><a href="#">Stakeholder Engagement Guideline</a></li> <li><a href="#">Shareholder meeting</a></li> <li><a href="#">Opportunity day</a></li> <li><a href="#">Customer experience survey</a></li> </ul>			4.4, 6.2			16.7	Principle 1
102-22	Composition of the highest governance body and its committees	<ul style="list-style-type: none"> <li>This report page 31-34</li> <li><a href="#">Corporate Governance Policy</a></li> <li><a href="#">BOD Competence Matrix</a></li> <li><a href="#">Annual Report</a> page 65-78</li> </ul>			4.4, 6.2			5.5, 16.7	Principle 1
102-23	Chair of the highest governance body	<ul style="list-style-type: none"> <li>This report page 33</li> <li><a href="#">Annual Report</a> page 60-66</li> <li><a href="#">BOD Competence Matrix</a></li> </ul>			4.4, 6.2			16.6	
102-24	Nominating and selecting the highest governance body	<ul style="list-style-type: none"> <li>This report page 32-33,35</li> <li><a href="#">Annual Report</a> page 96-99</li> </ul>			4.4, 6.2			16.7 5.5	
102-25	Conflicts of interest	<ul style="list-style-type: none"> <li>This report page 38</li> <li><a href="#">Annual Report</a> page 90-99</li> <li><a href="#">BOD Competence Matrix</a></li> </ul>			4.4, 6.2			16.6	
102-26	Role of highest governance body in setting purpose, values, and strategy	This report page 6-7, 26, 29			4.4, 6.2				
102-27	Collective knowledge of highest governance body	<ul style="list-style-type: none"> <li>This report page 32</li> <li><a href="#">Annual Report</a> page 90-99</li> <li><a href="#">BOD Competence Matrix</a></li> </ul>			4.4, 6.2			4.7	
102-28	Evaluating the highest governance body's performance	<ul style="list-style-type: none"> <li>This report page 32-36</li> <li><a href="#">Annual Report</a> page 101</li> </ul>			4.4, 6.2				
102-29	Identifying and managing economic, environmental, and social impacts	This report page 13,28,32-36			4.4, 6.2	CC2.1, CC2.1a, CC2.1b, CC2.1c		16.7	
102-30	Effectiveness of risk management processes	This report page 36			4.4, 6.2	CC2.1, CC2.1a, CC2.1b, CC2.1c			
102-31	Review of economic, environmental, and social topics	This report page 34			4.4, 6.2	CC2.1, CC2.1a, CC2.1b, CC2.1c			
102-32	Highest governance body's role in sustainability reporting	This report page 14,15,23,26			4.4, 6.2				
102-33	Communicating critical concerns	This report page 24			4.4, 6.2				



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
102-34	Nature and total number of critical concerns	This report page 23			4.4, 6.2				
102-35	Remuneration policies	<ul style="list-style-type: none"> <li>This report page 78-80</li> <li><a href="#">2020 AGM Minutes</a> page 7-10</li> <li><a href="#">Annual Report</a> page 76-78</li> </ul>			4.4, 6.2	CC1.2, CC1.2a			
102-36	Process for determining remuneration	This report 35, 76-77			4.4, 6.2				
102-37	Stakeholders' involvement in remuneration	<ul style="list-style-type: none"> <li><a href="#">2020 AGM Minutes</a> page 7-10</li> </ul>			4.4, 6.2			16.7	
102-38	Annual total compensation ratio	<ul style="list-style-type: none"> <li>This report page 34</li> <li><a href="#">Annual Report</a> page 77</li> <li><a href="#">2020 AGM Minutes</a> page 7-10</li> </ul>			4.4, 6.2				
102-39	Percentage increase in annual total compensation ratio	This report page 34			4.4, 6.2				
102-40	List of stakeholder groups	<ul style="list-style-type: none"> <li>This report page 20-23</li> <li><a href="#">Stakeholder Engagement Guideline</a></li> </ul>		✓	4.4				
102-41	Collective bargaining agreements	This report page 90			4.4		principle 3	8.8	
102-42	Identifying and selecting stakeholders	<ul style="list-style-type: none"> <li>This report page 20-23</li> <li><a href="#">Stakeholder Engagement Guideline</a></li> </ul>		✓	4.4				Principle 1
102-43	Approach to stakeholder engagement	<ul style="list-style-type: none"> <li>This report page 20-23</li> <li><a href="#">Stakeholder Engagement Guideline</a></li> </ul>		✓	4.4				Principle 1
102-43	Approach to stakeholder engagement	This report page 20-23,			4.4				Principle 1
102-44	Key topics and concerns raised	This report page 20-23			4.4				Principle 1
102-45	Entities included in the consolidated financial statements	<ul style="list-style-type: none"> <li>This report page 58</li> <li><a href="#">Annual Report</a> page 25-27,140</li> </ul>			4.4				Principle 1
102-46	Defining report content and topic Boundaries	This report page 58,126			4.4				Principle 1
102-47	List of material topics	This report page 23		✓	4.4				Principle 1



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
103-1	Explanation of the material topic and its Boundary	This report page 20-23		✓	4.4, 5.2				
103-2	The management approach and its components	This report page 18-26		✓	4.4, 5.2				
103-3	Evaluation of the management approach	This report page 17		✓	4.4, 5.2				
102-48	Restatements of information	This report page 126-127							
102-49	Changes in reporting	This report page 126							
102-50	Reporting period	This report page 2,126							
102-51	Date of most recent report	This report page 126							
102-52	Reporting cycle	This report page 126							
102-53	Contact point for questions regarding the report	This report page 148							
102-54	Claims of reporting in accordance with the GRI Standards	This report page 126			4.2				
102-55	GRI content index	This report page 131-144							
102-56	External assurance	This report page 130			4.2	CC8.6, CC8.6a, CC8.6b, CC8.7, CC8.7a, CC8.8, CC14.2, CC14.2a			
201-1	Direct economic value generated and distributed	<ul style="list-style-type: none"> <li>This report page 27,31,111</li> <li><a href="#">Annual Report</a> page 132-194</li> <li><a href="#">Full Major social contribution list</a></li> </ul>		✓	6.8.1, 6.8.2, 6.8.3, 6.8.7, 6.8.9	material issue		2.a, 5.1, 5.4, 7.a, 7.b, 8.1, 8.2, 9.1, 9.4, 9.5, 9.a	
103-1	Explanation of the material topic and its Boundary	This report page 9-16, 31		✓	4.4, 5.2				





GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
103-2	The management approach and its components	This report page 14-15, 25-27		✓	4.4, 5.2				
103-3	Evaluation of the management approach	This report page 25, 31-32		✓	4.4, 5.2				
201-2	Financial implications and other risks and opportunities due to climate change	This report page 27			6.5.5	CC5.1, CC5.1a, CC5.1b, CC5.1c, CC6.1, CC6.1a, CC6.1b, CC6.1c	principle 7	13.1	
201-3	Defined benefit plan obligations and other retirement plans	<ul style="list-style-type: none"> <li>This report page 88-89</li> <li><a href="#">Annual Report</a> page 150-151</li> </ul>			6.8.7				
201-4	Financial assistance received from government	<ul style="list-style-type: none"> <li><a href="#">Annual Report</a> page 180-182</li> </ul>							
202-1	Ratio of entry level wage by gender compared to local minimum wage	This report page 88, 109			6.3.7, 6.3.110, 6.4.3, 6.4.4, 6.8.1, 6.8.2		principle 6	1.2, 5.1, 8.2, 8.5	
202-2	Proportion of senior management hired from the local community	This report page 78			6.4.3, 6.8.1, 6.8.2, 6.8.5, 6.7		principle 6	8.5	
203-1	Infrastructure investments and services supported	<ul style="list-style-type: none"> <li>This report page 111</li> <li><a href="#">Full Major social contribution list</a></li> </ul>			6.3.9, 6.8.1, 6.8.2, 6.8.5, 6.8.7, 6.8.9			11.2, 2.a, 5.1, 7.a, 7.b, 9.1, 9.4, 9.a	
203-2	Significant indirect economic impacts	This report 17,29,43,93,111			6.3.9, 6.6.6, 6.6.7, 6.7.6, 6.8.1, 6.8.2, 6.8.7, 6.8.9			1.2, 10.b, 17.3, 2.3, 3.8, 8.2, 8.3, 8.5	Principle 10
204-1	Proportion of spending on local suppliers	This report page 50			6.4.3, 6.6.6, 6.8.1, 6.8.2, 6.8.7			1.4, 5.1, 8.3	
205-1	Operations assessed for risks related to corruption	This report page 36,52		✓	6.6.1, 6.6.2, 6.6.3		principle 8 principle 10	16.5	Principle 10
205-2	Communication and training about anti-corruption policies and procedures	<ul style="list-style-type: none"> <li>This report page 37,93</li> <li><a href="#">Anti-corruption policy</a></li> </ul>		✓	6.6.3, 6.6.7		principle 7 principle 8 principle 10	16.5	Principle 10
205-3	Confirmed incidents of corruption and actions taken	This report page 39		✓	6.6.1, 6.6.2, 6.6.3		principle 8 principle 10	16.5	Principle 10



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	This report page 39			6.6.1, 6.6.2, 6.6.3		principle 8	16.3	
207-1	Approach to tax	<ul style="list-style-type: none"> <li>• <a href="#">Tax policy</a></li> <li>• This report page 31-32, 35,112-114</li> </ul>						17.3	
207-2	Tax governance, control and risk management	<ul style="list-style-type: none"> <li>• <a href="https://www.deltathailand.com/en/about-tax">https://www.deltathailand.com/en/about-tax</a></li> <li>• This report page 31-32, 35,112-114</li> <li>• <a href="#">Annual Report</a> page 22,66,67,71,154,155,163,178-184</li> </ul>						17.3	
207-3	Stakeholder engagement and management of concerns related to tax	<ul style="list-style-type: none"> <li>• <a href="#">Stakeholder engagement guideline</a></li> </ul>						17.3	
207-4	Country by country reporting	<a href="#">Annual Report</a> page 178-184						17.3	
301-1	Materials used by weight or volume	This report 50,55			6.5.4		principle 7 principle 8	12.2, 8.4	
301-2	Recycled input materials used	This report page 55		✓	6.5.4	material issue	principle 8	12.2, 12.5, 8.4	
103-1	Explanation of the material topic and its Boundary	This report page 49, 54,55		✓	4.4, 5.2				
103-2	The management approach and its components	This report page 55		✓	4.4, 5.2				
103-3	Evaluation of the management approach	This report page 55		✓	4.4, 5.2				
301-3	Reclaimed products and their packaging materials	This report page 55					principle 8	12.2, 12.5, 8.4	
302-1	Energy consumption within the organization	<ul style="list-style-type: none"> <li>• This report page 61-62</li> <li>• ISO 50001 certificate (<a href="#">Thailand</a>)</li> <li>• ISO 14001 certificate (<a href="#">Thailand</a>)</li> <li>• ISO 14001 Certification (<a href="#">India</a>)</li> <li>• ISO 14001 Certification (<a href="#">Slovakia</a>)</li> <li>• <a href="#">2021 Sustainability in numbers</a> page 2</li> </ul>		✓	6.5.4	CC10.1a, CC11.2, CC11.3, CC11.3a, CC11.4, CC11.5	principle 7 principle 8	12.2, 13.1, 7.2, 7.3, 8.4	
103-1	Explanation of the material topic and its Boundary	This report page 58, 59		✓	4.4, 5.2				
103-2	The management approach and its components	This report page 44, 53-55, 58, 59		✓	4.4, 5.2	CC3.1, CC3.1a, CC3.1b, CC3.1c			



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
103-3	Evaluation of the management approach	This report page 43, 44, 53-55, 58, 59		✓	4.4, 5.2				
302-2	Energy consumption outside of the organization	This report page 58, 59			6.5.4		principle 8	12.2, 13.1, 7.2, 7.3, 8.4	
302-3	Energy intensity	<ul style="list-style-type: none"> <li>This report page 61-62</li> <li><a href="#">2021 Sustainability in numbers</a> page 2</li> </ul>			6.5.4	CC10.1a, CC11.2, CC11.3, CC11.3a, CC11.4, CC11.5	principle 8	12.2, 13.1, 7.3, 8.4	
302-4	Reduction of energy consumption	<ul style="list-style-type: none"> <li>This report page 62-64</li> <li><a href="#">2021 Sustainability in numbers</a> page 2</li> </ul>		✓	6.5.4, 6.5.5		principle 8 principle 9	12.2, 13.1, 7.3, 8.4	
302-5	Reductions in energy requirements of products and services	This report page 43			6.5.4, 6.5.5		principle 9	12.2, 13.1, 7.3, 8.4	
303-1	Interactions with water as a shared resource	This report page 74-75					principle 8	6.4	
303-2	Management of water discharge-related impacts	This report page 74-78					principle 8	6.4	
303-3	Water withdrawal	<ul style="list-style-type: none"> <li>This report page 74-78</li> <li><a href="#">2021 Sustainability in numbers</a> page 3-4</li> </ul>		✓			principle 7 principle 8	6.4	
303-4	Water withdrawal	<ul style="list-style-type: none"> <li>This report page 74-78</li> <li><a href="#">2021 Sustainability in numbers</a> page 4-5</li> </ul>		✓			principle 7 principle 8	6.3, 6.4	
303-5	Water consumption	<ul style="list-style-type: none"> <li>This report page 74-78</li> <li><a href="#">2021 Sustainability in numbers</a> page 5</li> </ul>		✓			principle 7 principle 8	6.3, 6.4	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<ul style="list-style-type: none"> <li>This report page 55,57,64,66-67,70-78,80</li> <li><a href="#">2020 DET's Water risk assessment result</a></li> </ul>			6.5.6			15.1, 15.4, 15.5, 6.6	
304-2	Significant impacts of activities, products, and services on biodiversity	<ul style="list-style-type: none"> <li>This report page 66,80</li> <li><a href="#">2020 DET's Water risk assessment result</a></li> </ul>			6.5.6		principle 8	8, 14.2, 15.1, 15.4, 15.5, 6.6	
304-3	Habitats protected or restored	<ul style="list-style-type: none"> <li>This report page 58, 66,77-78, 80</li> <li><a href="#">2020 DET's Water risk assessment result</a></li> </ul>			6.5.6		principle 8	14.2, 15.1, 15.4, 15.5, 6.6	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	<ul style="list-style-type: none"> <li>This report page 80</li> <li><a href="#">2020 DET's Water risk assessment result</a></li> </ul>			6.5.6		principle 8	14.2, 15.1, 15.4, 15.5, 6.6	





GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives					
					ISO26000	CDP	UNGC	SDG	CRBP	
305-1	Direct (Scope 1) GHG emissions	<ul style="list-style-type: none"> <li>This report page 59</li> <li><a href="#">Delta Thailand GHG Inventory Report</a></li> <li><a href="#">Delta Thailand ISO14064-1 certificate</a></li> <li><a href="#">Delta India ISO14064-1 certificate</a></li> <li><a href="#">Delta Slovakia ISO14064-1 certificate</a></li> <li><a href="#">2021 Sustainability in numbers</a> page 5-6</li> </ul>		✓	6.5.5	CC13.1, CC13.1a, CC13.1b, CC13.2, CC13.2a, CC7.1, CC7.2, CC7.2a, CC7.3, CC7.4, CC8.1, CC8.2, CC8.9, CC8.9a, CC9.1, CC9.1a, CC9.2, CC9.2a, CC9.2b, CC9.2c, CC9.2d	principle 7 principle 8	12.4, 13.1, 14.3, 15.2, 3.9		
305-2	Energy indirect (Scope 2) GHG emissions	<ul style="list-style-type: none"> <li>This report page 59</li> <li><a href="#">Delta Thailand GHG Inventory Report</a></li> <li><a href="#">Delta Thailand ISO14064-1 certificate</a></li> <li><a href="#">Delta India ISO14064-1 certificate</a></li> <li><a href="#">Delta Slovakia ISO14064-1 certificate</a></li> <li><a href="#">2021 Sustainability in numbers</a> page 5-6</li> </ul>		✓	6.5.5	CC13.1, CC13.1a, CC13.1b, CC13.2, CC13.2a, CC7.1, CC7.2, CC7.2a, CC7.3, CC7.4, CC8.1, CC8.3, CC8.3a, CC10.1, CC10.1a, CC10.2, CC10.2a, CC10.2b, CC10.2c	principle 7 principle 8	12.4, 13.1, 14.3, 15.2, 3.9		
305-3	Other indirect (Scope 3) GHG emissions	<ul style="list-style-type: none"> <li>This report page 59</li> <li><a href="#">Delta Thailand GHG Inventory Report</a></li> <li><a href="#">Delta Thailand ISO14064-1 certificate</a></li> <li><a href="#">Delta India ISO14064-1 certificate</a></li> <li><a href="#">Delta Slovakia ISO14064-1 certificate</a></li> <li><a href="#">2021 Sustainability in numbers</a> page 5-6</li> </ul>		✓	6.5.5	CC13.1, CC13.1a, CC13.1b, CC13.2, CC13.2a, CC3.1a, CC3.1b, CC3.1c, CC3.1e, CC8.9, CC8.9a, CC14.1	principle 7 principle 8	12.4, 13.1, 14.3, 15.2, 3.9		
103-1	Explanation of the material topic and its Boundary	This report page 10, 25-27, 56-57		✓	4.4, 5.2	CC1.1, CC1.1a, CC1.2, CC1.2a, CC2.1, CC2.1a, CC2.1b, CC2.1c,				



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives					
					ISO26000	CDP	UNGC	SDG	CRBP	
						CC2.1d, CC2.2, CC2.2a, CC2.2b, CC2.2c, CC2.2d, CC3.1, CC3.1a, CC3.1b, CC3.1c, CC3.3, CC3.3a, CC3.3b, CC3.3c, CC3.3d, CC8.4, CC8.4a				
103-2	The management approach and its components	This report page 9, 10, 12, 15, 26-27, 57		✓	4.4, 5.2	CC1.1, CC1.1a, CC1.2, CC1.2a, CC2.1, CC2.1a, CC2.1b, CC2.1c, CC2.1d, CC2.2, CC2.2a, CC2.2b, CC2.2c, CC2.2d, CC3.1, CC3.1a, CC3.1b, CC3.1c, CC3.3, CC3.3a, CC3.3b, CC3.3c, CC3.3d, CC8.4, CC8.4a				
103-3	Evaluation of the management approach	This report page 26-27,57		✓	4.4, 5.2					
305-4	GHG emissions intensity	<ul style="list-style-type: none"> <li>This report page 59</li> <li><a href="#">2021 Sustainability in numbers</a> page 6</li> </ul>			6.5.5	CC12.2, CC12.3	principle 8	13.1, 14.3, 15.2		
305-5	Reduction of GHG emissions	<ul style="list-style-type: none"> <li>This report page 57</li> <li><a href="#">Delta Thailand GHG Inventory Report</a></li> <li><a href="#">Delta Thailand ISO14064-1 certificate</a></li> <li><a href="#">Delta India ISO14064-1 certificate</a></li> <li><a href="#">Delta Slovakia ISO14064-1 certificate</a></li> </ul>			6.5.5	CC3.3a, CC3.3b, CC7.2, CC7.2a, CC7.3, CC12.1, CC12.1a, CC12.1b, CC14.3, CC14.3a	principle 8	13.1, 14.3, 15.2		
305-6	Emissions of ozone-depleting substances (ODS)	This report page 61			6.5.3, 6.5.5		principle 7 principle 8	12.4, 3.9		
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	<ul style="list-style-type: none"> <li>This report page 72-73</li> <li><a href="#">2021 Sustainability in numbers</a> page 6</li> </ul>		✓	6.5.5	CC12.2, CC12.3	principle 7 principle 8	11.6, 12.4, 14.3, 15.2, 3.9		



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
306-1	Waste generation and significant waste-related impacts	<ul style="list-style-type: none"> <li>This report page 70</li> <li><a href="#">Local regulator official endorsement</a></li> </ul>			6.5.3		principle 8	12.4, 12.5, 3.9	
306-2	Management of significant waste-related impacts	<ul style="list-style-type: none"> <li>This report page 70</li> <li><a href="#">Local regulator official endorsement</a></li> <li><a href="#">2021 Sustainability in numbers</a> page 6-7, 9</li> </ul>			6.5.3		principle 7 principle 8	12.4, 12.5, 3.9, 6.3	
306-3	Waste generated	<ul style="list-style-type: none"> <li>This report page 70-71</li> <li><a href="#">Local regulator official endorsement</a></li> <li><a href="#">2021 Sustainability in numbers</a> page 6-7, 9</li> </ul>		✓	6.5.3		principle 8	12.4, 12.5, 14.1, 15.1, 3.9, 6.3, 6.6	
306-4	Waste diverted from disposal	<ul style="list-style-type: none"> <li>This report page 70-71</li> <li><a href="#">Local regulator official endorsement</a></li> <li><a href="#">2021 Sustainability in numbers</a> page 6-7, 9</li> </ul>		✓	6.5.3		principle 8	12.4, 12.5, 3.9	
306-5	Waste directed to disposal	<ul style="list-style-type: none"> <li>This report page 70-71</li> <li><a href="#">Local regulator official endorsement</a></li> <li><a href="#">2021 Sustainability in numbers</a> page 6-7, 9</li> </ul>		✓	6.5.3		principle 8	12.4, 12.5, 3.9	
307-1	Non-compliance with environmental laws and regulations	<ul style="list-style-type: none"> <li>This report page 41,50-53, 57-59, 64,70, 72</li> <li><a href="#">Local regulator official endorsement</a></li> </ul>			4.6		principle 8	16.3	Principle 7
308-1	New suppliers that were screened using environmental criteria	<ul style="list-style-type: none"> <li>This report page 50-51</li> <li><a href="#">Procurement agreement</a></li> <li><a href="#">Supplier Management Measure</a></li> </ul>		✓	6.3.5, 6.6.6		principle 8		Principle 7
308-2	Negative environmental impacts in the supply chain and actions taken	This report page 50,51			6.3.5, 6.6.6		principle 8		
401-1	New employee hires and employee turnover [This Standard includes a Standard Interpretation on how to calculate the rates of new employee hires and employee turnover.]	<ul style="list-style-type: none"> <li>This report page 84</li> <li><a href="#">Employment policy</a></li> </ul>			6.4.1, 6.4.2, 6.4.3		principle 6	5.1, 8.5, 8.6	Principle 3
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<ul style="list-style-type: none"> <li>This report page 89,102</li> <li><a href="#">Employment policy</a></li> <li><a href="#">Welcome onboard</a>, manual for new employees</li> </ul>			6.4.1, 6.4.2, 6.4.4, 6.8.7		principle 8	3.2, 5.4, 8.5	Principle 3
401-3	Parental leave	<ul style="list-style-type: none"> <li>This report page 85</li> <li><a href="#">Employment policy</a></li> <li><a href="#">Welcome onboard</a>, manual for new employees</li> </ul>			6.4.1, 6.4.2, 6.4.4		principle 6	5.1, 5.4, 8.5	Principle 3





GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
402-1	Minimum notice periods regarding operational changes	<ul style="list-style-type: none"> <li>This report page 86</li> <li><a href="#">Employment policy</a></li> <li><a href="#">Welcome onboard</a>, manual for new employees</li> </ul>			6.4.1, 6.4.2, 6.4.3, 6.4.5		principle 3	8.8	
403-1 (2018)	Occupational health and safety management system	<ul style="list-style-type: none"> <li>This report page 86</li> <li>ISO 45001 certificate: <a href="#">Thailand</a>, <a href="#">India</a>, <a href="#">Slovakia</a></li> </ul>		✓				8.8	
403-2 (2018)	Hazard identification, risk assessment, and incident investigation	This report page 79, 98-104		✓				3.3, 3.4, 3.9, 8.8	
103-1	Explanation of the material topic and its Boundary	This report page 97		✓	4.4, 5.2		principle 7 principle 8		
103-2	The management approach and its components	This report page 26,86,97		✓	4.4, 5.2		principle 7 principle 8		
103-3	Evaluation of the management approach	This report page 79,103,105		✓	4.4, 5.2		principle 8		
403-3 (2018)	Occupational health services	This report page 89,102						3.3, 3.4, 3.9, 8.8	
403-4 (2018)	Worker participation, consultation, and communication on occupational health and safety	This report 97,100,117						8.8	
403-5 (2018)	Worker training on occupational health and safety	This report 93,105		✓					
403-6 (2018)	Promotion of worker health	<ul style="list-style-type: none"> <li>This report page 102</li> <li><a href="#">Happy workplace policy</a></li> <li><a href="#">Employment policy</a></li> <li><a href="#">Welcome onboard</a>, manual for new employees</li> </ul>							
403-7 (2018)	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	This report 79, 98-104							
403-8 (2018)	Workers covered by an occupational health and safety management system	This report 97							



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
403-9 (2018)	Work-related injuries	This report page 103-104		✓					
403-10 (2018)	Work-related illness	This report page 79,100-101		✓					
103-1	Explanation of the material topic and its Boundary	This report page 79,100-101		✓	4.4, 5.2		principle 7 principle 8		
103-2	The management approach and its components	<ul style="list-style-type: none"> <li>This report page 26,79,86</li> <li><a href="#">CG policy</a></li> <li><a href="#">Employment policy</a></li> <li><a href="#">Environment, Safety and Health Policy</a></li> </ul>		✓	4.4, 5.2		principle 7 principle 8		
103-3	Evaluation of the management approach	This report page 79,103-105		✓	4.4, 5.2		principle 8		
404-1	Average hours of training per year per employee	This report page 93		✓	6.4.7		principle 6	4.3, 4.4, 4.5, 8.2, 8.5	Principle 3
404-2	Programs for upgrading employee skills and transition assistance programs	<ul style="list-style-type: none"> <li>This report page 94-96</li> <li><a href="#">Employment policy</a></li> <li><a href="#">Full Major social contribution list</a></li> </ul>			6.4.7, 6.8.5		principle 8	8.2, 8.5	Principle 3
404-3	Percentage of employees receiving regular performance and career development reviews	This report page 88		✓	6.4.7		principle 6	10.3, 5.1, 8.5	
405-1	Diversity of governance bodies and employees	<ul style="list-style-type: none"> <li>This report page 31-32</li> <li><a href="#">CG Policy</a></li> <li><a href="#">BOD Competence Matrix</a></li> <li><a href="#">Employment policy</a></li> </ul>			6.2.3, 6.3.7, 6.3.110, 6.4.3		principle 6	5.1, 5.5, 8.5	Principle 3
405-2	Ratio of basic salary and remuneration of women to men	This report page 88		✓	6.3.7, 6.3.10, 6.4.3, 6.4.4		principle 6	10.3, 5.1, 8.5	
406-1	Incidents of discrimination and corrective actions taken	This report page 86			6.3.1, 6.3.2, 6.3.6, 6.3.7, 6.3.10, 6.4.3		principle 6	16.b, 5.1, 8.8	Principle 1,3
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	This report page 53,90,91,107,128		✓	6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.5, 6.6.6		principle 3	8.8	Principle 3
408-1	Operations and suppliers at significant risk for incidents of child labor	This report page 53,86,120			6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.5, 6.3.10, 6.6.6, 6.8.4		principle 5	16.2, 8.7	Principle 1,2, 3



GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<ul style="list-style-type: none"> <li>This report page 53</li> <li><a href="#">Procurement agreement</a></li> <li><a href="#">RMI Agreement</a></li> <li><a href="#">Supplier Management Measure</a></li> </ul>			6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.10, 6.6.6		principle 4	8.7	
410-1	Security personnel trained in human rights policies or procedures	This report page 97			6.3.1, 6.3.2, 6.3.4, 6.3.5, 6.6.6		principle 1	16.1	Principle 8
411-1	Incidents of violations involving rights of indigenous peoples	This report page 86			6.3.1, 6.3.2, 6.3.4, 6.3.6, 6.3.7, 6.3.8, 6.6.7, 6.8.3		principle 1	2.3	
412-1	Operations that have been subject to human rights reviews or impact assessments	This report page 52,86			6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5		principle 1		principle 1
412-2	Employee training on human rights policies or procedures	This report page 83,93			6.3.1, 6.3.2, 6.3.5		principle 1		
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	<ul style="list-style-type: none"> <li>This report page 50</li> <li><a href="#">Procurement agreement</a></li> </ul>			6.3.1, 6.3.2, 6.3.3, 6.3.5, 6.6.6		principle 2		
413-1	Operations with local community engagement, impact assessments, and development programs	This report page 20, 38,80,91, 115-120		✓	6.3.9, 6.5.1, 6.5.2, 6.5.3, 6.7.9		principle 1		Principle 7
413-2	Operations with significant actual and potential negative impacts on local communities	<ul style="list-style-type: none"> <li>This report page 20, 38,72, 80</li> <li><a href="#">Local regulator official endorsement</a></li> </ul>			6.3.9, 6.5.3, 6.7.9		principle 1	2.3	Principle 7
414-1	New suppliers that were screened using social criteria	<ul style="list-style-type: none"> <li>This report page 49</li> <li><a href="#">Procurement Agreement</a></li> </ul>		✓	6.3.5, 6.6.6, 6.8.1, 6.8.2		principle 7 principle 8		Principle 2, 3
414-2	Negative social impacts in the supply chain and actions taken	<ul style="list-style-type: none"> <li>This report page 49, 51-57</li> <li><a href="#">Supplier Management Measure</a> page 4-13</li> </ul>			6.3.5, 6.6.1, 6.6.2, 6.6.6, 6.8.1, 6.8.2		principle 7 principle 8		Principle 1, 2,10
415-1	Political contributions	<ul style="list-style-type: none"> <li>This report page 112-114</li> <li><a href="#">Membership of Association</a></li> <li><a href="#">Full Major social contribution list</a></li> </ul>				CC2.3, CC2.3a, CC2.3e, CC2.3f, CC2.3g	principle 8 principle 10	16.5	
416-1	Assessment of the health and safety impacts of product and service categories	This report page 42,45,102			6.7.1, 6.7.2, 6.7.4, 6.7.5, 6.8.8		principle 8		Principle 5
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	This report page 45			4.6, 6.7.1, 6.7.2, 6.7.4, 6.7.5, 6.8.8		principle 8	16.3	





GRI Standard	Description	Page / Link	Reason for omission	External Assurance	Linkage to other initiatives				
					ISO26000	CDP	UNGC	SDG	CRBP
417-1	Requirements for product and service information and labeling	This report page 45			6.7.1, 6.7.2., 6.7.3, 6.7.4, 6.7.5, 6.7.9		principle 8	12.8	Principle 5,6
417-2	Incidents of non-compliance concerning product and service information and labeling	This report page 45			4.6, 6.7.1, 6.7.2, 6.7.3, 6.7.4, 6.7.5		principle 7 principle 8	16.3	
417-3	Incidents of non-compliance concerning marketing communications	This report page 13,111			4.6, 6.7.1, 6.7.2, 6.7.3		principle 7 principle 8	16.3	
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	<ul style="list-style-type: none"> <li>This report page 68</li> <li><a href="#">ISO/IEC27001:2013 certificate</a></li> </ul>			6.7.1, 6.7.2, 6.7.6		principle 8	16.a, 16.3, 16.10	Principle 6
419-1	Non-compliance with laws and regulations in the social and economic area	<ul style="list-style-type: none"> <li>This report page 13,37,68,86,111</li> <li><a href="#">Local regulator official endorsement</a></li> </ul>			4.6, 6.7.1, 6.7.2, 6.7.6		principle 7 principle 8	16.3	Principle 6



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ใบอนุญาตเลขที่ 4/17 ปณ. บางปู  
ถ้าฝากส่งในประเทศไม่ต้องผูกตราไปรษณียากร

คณะกรรมการเพื่อการพัฒนาที่ยั่งยืน

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## Your feedback matters!

We value your suggestion in this report as part of our sustainable development activities.

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