



# ESG In Action

**BST Group - Sustainable Development Report 2022**

## MDs Message

In 2022, although the impact of the COVID-19 outbreak has subsided, we still take care of our employees and contractors in accessing vaccines, establish a protection system to enable production staff to continue production without neglecting the health and safety of employees and stakeholders and continue to support work from home as needed.

In order to have efficiency in driving sustainable develop, we have revised the Sustainable Development Steering Committee into 4 dimensions: Environment and Occupational Health, Social Responsibility, Safety and Governance Dimensions and we have announced several important policies aiming for sustainable development in accordance with ESG (Environment, Social and Governance) including ESG Policy and targets, Anti-Fraud and Corruption Policy, and. Sustainable Procurement Policy and the new version of Code of Conduct to lead the foundation of sustainable development system in various dimensions.

The significant achievements in 2022, In social dimension: we are certified ISO 45001 as an international standard for occupational health and safety management systems to improve the safety and health of our employees and other stakeholders, we have been continuously awarded for the CSR-DIW from the Department of Industrial Works. In governance dimension, we conduct the business properly and transparently in all situations with good governance under BST Group- Code of Conduct. All employees have passed 100% ethical tests and there is no incidence of violations of relevant laws and regulations and no incidents of unethical case. In the environment dimension, we have no written environmental complaints from neighboring plants and communities. However, due to the economic recession, the petrochemical industry has been greatly affected. As a result, we reduced energy consumption and emitted the greenhouse gases less than the target which explains more details in the report.

This annual sustainable report 2022 provides a more concrete report on business operations in line with BST Group's sustainable development guidelines. This is to demonstrate our intention to conduct business properly and transparently in all situations with good governance, with “No harm to anyone, anytime” and respect for labor and human rights together with social responsibility and stakeholders' engagement and focus on the environment protection and conservation of energy and natural resources with sustainable use of resources.



Supachol Nithivasin  
Managing Director



Chatree Chuenchomsakun  
Managing Director

## Messages from the Chairmans of Sustainable Development Steering Committee

### Occupational Health and Environment Steering Committee

Sustainable development and business operations must be aligned and have the same direction. In 2021, BST Group began to set up an environmental committee to be responsible for setting policies and plans for sustainable environmental operations especially the commitment to Carbon Net Zero in the year 2050. We plan from short-term, medium-term, and long-term plans, including operational plans each year to support this issue which is a global issue and directly affects to our business.

Therefore, BST Group has set a short-term goal for the year 2026 to reduce the greenhouse gas emissions Scope 1 and 2 by 12% compared with business as usual (BAU) from the base year of 2019 with the following guidelines:

1. Optimizing production to reduce energy consumption
2. Introduction the new technologies to increase energy efficiency and carbon capture
3. Use of renewable energy, clean energy to reduce the use of fossil fuels.
4. Carbon offsetting through tree planting etc.

However, BST Group is a part that makes Rayong Province an Eco Industrial Town. The important thing is to cooperate with all sectors, including government, community, and society, which must have clear and consistent goals and policies. Especially the global warming and climate change that are the problems of the world and everyone, we cooperate with the government by joining the Eco factory program, currently at level 4, as well as

striving to reduce the use of natural resources in the production process. Therefore, our production process must contribute to solving environmental problems and friendly with the environment to live with the community sustainably such as

1. Apply technology to reduce VOCs problems by installing a Thermal Oxidizer which has high treatment efficiency.
2. Implement a pilot project to comply with the draft COPs measures for plant maintenance to reduce VOC emissions.
3. Reduce waste from production and increase waste utilization instead of disposal and no waste to landfill.
4. Participate and conduct a Carbon Footprint (CFP) of all products.

BST Group is committed to sustainable environmental development and strictly follow the policies and goals set forth above



Chatchawan Khanthatatbumroong  
Chairman of Occupational health and  
Environment Steering Committee

### Safety Steering Committee

The Safety Committee has focused on maintaining process safety standards (Process Safety Management) and continuously promoting Operation Discipline and BST Group has achieved 18 million work hours without lost time accidents in January 2023.

However, the committee continue to strive to raise the level of safe work and safety culture even more by extending to contractors, business partners and all stakeholders, with the main goal that we all must move for World Class Safety. The committee expects that the plans and activities that we do will continue receiving cooperation and support from all sectors as well and continuously as before



Phusit Thepkliang

Wuthikorn Mathtayomchat

Co-Chairman of Safety Steering Committee

## Social Response Steering Committee

In 2021, the Social Response Steering Committee, which is one of the committees under the governance structure of Company's Sustainable Development Committee has been established to support sustainable business plans with stakeholders such as communities around the factory, business partners and employees, etc.

Even though the COVID-19 epidemic situation is still a challenge in doing business, but various activities are still ongoing, such as signing the Supplier Code of Conduct handbook, B2C activities to encourage employees to participate in CSR activities, human rights promotion activities

In 2022, the main mission of this committee is to continuously create understanding and set practical guidelines with stakeholders for example ESG risk assessment of products and services including ESG risks of business partners, preparation of a Product Stewardship Manual, etc.

For anything new that was not clearly understood was analyzed by the committee and has been used to determine the development guidelines to implement and prepare sufficient resources in the year 2023 already.

“The committee must understand the business context deepen and develop that understanding to be an activity with clear planning.”



Wirote Loedsalak

Chairman of Social Response Steering Committee

## Governance Steering Committee

In 2022, the Governance Steering Committee has operated in line with the company's policy to conduct business properly and transparently in all situations with good governance and being responsible to all groups of stakeholders with ethics and morality

The Company has good corporate governance principles and comply with government laws and relevant regulations (Zero Non-compliance). In addition, the company also promotes good corporate governance with business partners at the same time. to achieve sustainable development

Implementing good governance will not produce tangible results without cooperation from employees and stakeholders from all sectors

The committee will establish integrated guidelines and standards along with continuously adjusting the operational plan to keep up with the current situation to become an organization with sustainable business growth



Sudarat Thongsri

Chairman of Governance Steering Committee

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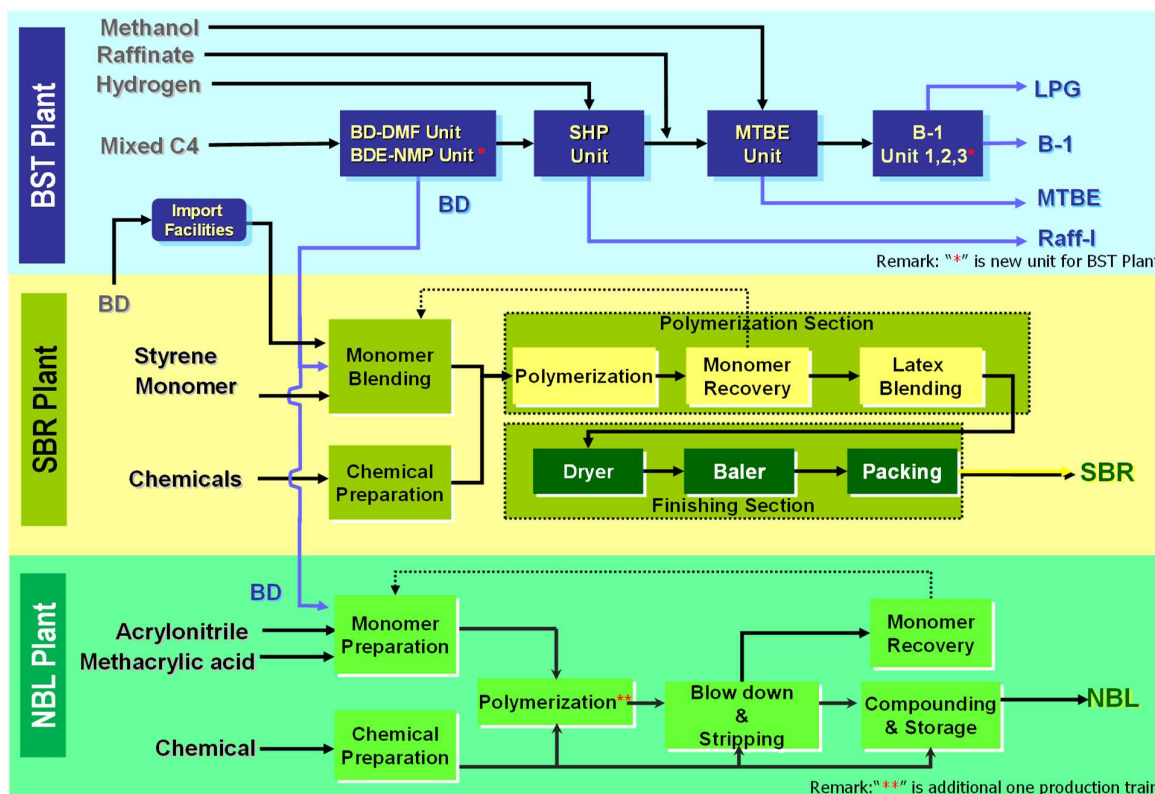
## 1. BST Group

Bangkok Synthetics Co., Ltd. (BST) was established in 1991 to develop a C4 business in Thailand from mixed C4 feedstock supplied by Olefin plants under the second stage of the national petrochemical industrial development program initiated by the Thai Government. BST began commercial operations in 1995.

BST remains committed to keeping abreast of technological development. In 1998 BST expanded its production capacity to meet the increasing demand in the petrochemical industry. As part of BST forward integration, BST Elastomers Co., Ltd. (BSTE) was established in 1996 to produce and commercialize Styrene Butadiene Rubber (SBR). BSTE's facility is in Map Ta Phut Industrial Estate on the same site as the BST Plant (Site I).

To further extend its C4 Business forward BST acquired the Nitrile based dipping latex business of DOW Reichhold Specialty Latex in 2008. BST is developing its Nitrile Latex business as a new investment area in the Map Ta Phut Industrial Estate (Site II), and commenced operation in Feb-2013.

All production process flow diagram is summarized as follows.



BST Group currently consists of two companies and three manufacturing plants;

### 1. Bangkok Synthetics Co., Ltd. has 2 plants.

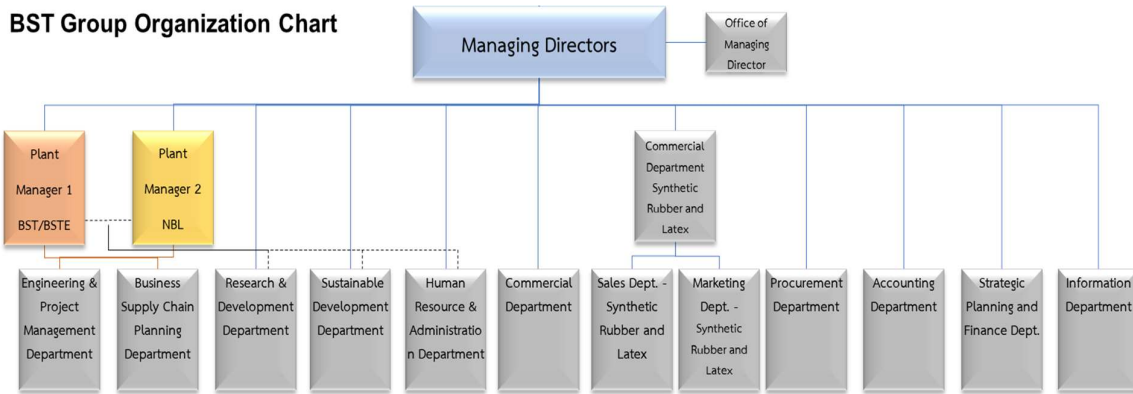
- a. BST Plant located at Site I and produces the following products from Mixed C4;
  - i. 1,3 Butadiene or BD is a raw material for synthetic rubber or latex.
  - ii. MTBE or Methyl Tertiary Butyl Ether is Antiknock agent in benzene
  - iii. Butene-1 or B-1 is an additive to improve the properties of polyethylene.
  - iv. Raffinate-1 or Iso Butylene is sold to TMMMA to produce Methyl Methacrylate (MMA).
  - v. C4-LPG or Liquefied Petroleum Gas is fuel or feedstock for olefins.

- b. NB Latex Plant located at Site II.

BST provides acrylonitrile butadiene latex that is specially designed for use in dipping applications; NB Latex has a balance of properties that match well with a variety of glove applications including examination gloves, industrial gloves, and household gloves.

2. **BST Elastomers Co., Ltd. (BSTE)** has the SBR plant located at Site I to produce styrene butadiene rubber. SBR has a range of versatile properties, including well-balanced tensile strength, abrasion resistance, good traction and processability. SBR is also used for the manufacture of automobile tires, sports equipment, toys, and industrial products. BST Elastomers Co. Ltd. (BSTE) is an affiliate of Bangkok Synthetics Co. Ltd

The BST Group's management structure is common for both companies, with the following departments overseeing key business operations as below organization chart:



## 2. Concept of Sustainable Development

Today's business operations are rapidly affected by the changing economy, market conditions, customer requirements. Especially, the expectation from stakeholders who require the organization to demonstrate responsibility for the economy, society, and environment.

BST Group has applied the concept of sustainable development consists of three important dimensions Environment, Social and Governance that must be taken into account in order for the business to grow and live sustainably which means conducting business with transparency along with socially responsible and taking care of the environment

To support the linkage of three dimensions above as an important part of business operation to cover and support the changes continuously, as well as integrate into the company's business strategy, therefore, the Sustainable Development Governance Structure has been established as follows:



## Roles and Responsibilities of the Sustainable Development Committee

Sustainable Development Committee has a role and responsibilities in setting policies, strategies, and guidelines for sustainable development and goals. The Managing Director is the chairman and all department managers are members to follow up and review the performance of each dimension steering committee at least once a quarter. For each dimension steering committee has a role and responsibilities in setting policies, strategies, goals, plans, as well as key indicators in each dimension in accordance with the company's strategic plan. The guidelines for sustainable development in each dimension are as follows.

1. **Governance Steering Committee** has the principal guideline “Conduct the business properly and transparently in all situations with good governance” consists of corporate governance (Governance) and compliance (Compliance).
2. **Social Response Steering Committee** has the principal guideline “Respect for labor and human rights together with social responsibility and stakeholders’ engagement” consists of supervision and respect for Labor and Human Rights and responsibility to Stakeholder Engagement.
3. **Occupational Health and Environment Steering Committee** has the principal guideline “Focus on the environment protection and conservation of energy and natural resources together with good work environment and occupational health” consists of management of resources, environment and energy, including sustainable production (Environment Energy and Resources) and management of occupational health and working environment. (Occupational Health)
4. **Safety Steering Committee** has the principal guideline “Conduct business for No harm to anyone, anytime” consists of promoting safety culture, safety in the production process (Process Safety), including safety related to company activities)

Each department managers will join in a steering committee member that they are involved to support and cause the driving to be fully consistent and harmonious. The steering committees have a meeting at least once a month to follow up on results and progress of the implementation plan



## Sustainable Development Plan

BST Group's sustainable development plan is divided into 3 phases.

Phase 1 focuses on building a foundation for sustainable development by set a direction operating policy and framework, infrastructure implementation and complete the elements of sustainable development.

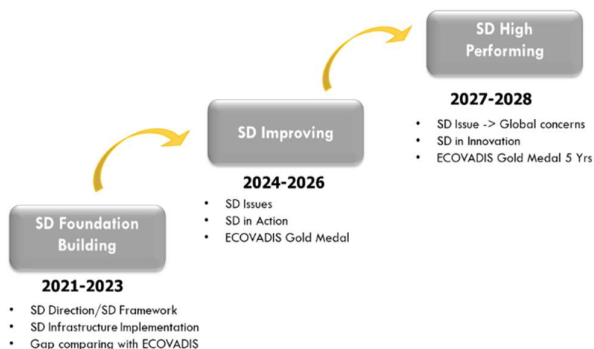
Phase 2 focuses on managing sustainable development issues to align with business strategy

throughout the value chain. The goal is to receive a gold medal from the ECOVADIS in 2023 for the first time.

Phase 3 focuses on managing sustainable development global issues and focus on development in new creative ways. The goal is to obtain gold medal from the ECOVADIS for five consecutive years.

In 2021-2022, we have established the basic systems and components for sustainable development divided into ESG dimensions as shown in the table below.

## BST Group - Sustainable Development Roadmap



| ESG         | 2021   | 2022  |
|-------------|--|---|
| Overall     | <ul style="list-style-type: none"> <li>• SD Annual Report</li> </ul>   | <ul style="list-style-type: none"> <li>• Signed Responsible Care Charter</li> <li>• ESG Policy</li> <li>• ESG Index Implementation</li> </ul>   |
| Environment | <ul style="list-style-type: none"> <li>• P-Safety, Occupational Health and Environment Policy</li> <li>• A-Envi Target Setting (Baseline)</li> <li>• R-Environment Annual Report</li> </ul>  | <ul style="list-style-type: none"> <li>• A-Start GHG Measurement and Monitoring system</li> <li>• A-Start implement ISCC+ system</li> </ul>   |
| Social      | <ul style="list-style-type: none"> <li>• P-Labor and Human Rights Policy</li> <li>• A-Supplier Code of Conduct</li> </ul>  | <ul style="list-style-type: none"> <li>• P-Sustainable Procurement Policy</li> <li>• A-ISO 45001 Implementation</li> <li>• A-Health Risk Assessment Implementation</li> <li>• A-Add social or environmental clauses included in supplier contracts</li> <li>• R-Safety Annual Report</li> <li>• R-Labor Human Right Annual Report</li> <li>• R-Sustainable Procurement Annual Report</li> </ul> |
| Governance  | <ul style="list-style-type: none"> <li>• P-Anti-Corruption Policy</li> <li>• P-Information Security Policy</li> <li>• P-Personal Data Protection Policy</li> <li>• P-Policy for information technology (e-policy)</li> <li>• A-ISMS/PDPA Implementation</li> <li>• A-Code of Conduct Training</li> </ul> | <ul style="list-style-type: none"> <li>• P-Anti-Fraud and Corruption Policy (Revision)</li> <li>• A-Code of Conduct Revision (Major Change)</li> <li>• A-Whistleblowing System</li> <li>• A-Business Assurance Audit</li> <li>• A-Phishing Test for ISM Security</li> <li>• A-PDP Breach Drill and Procedure</li> <li>• R-Governance Annual Report</li> </ul>                                   |

Note: P – Sustainable Development Policy A- Sustainable Development Implementation R-Report for Sustainable Development

### 3. Target and Performance of Sustainable Development in 2022

BST Group places importance on building business growth along with taking care of the Environmental, Social and Governance and ready to drive business according to international sustainability guidelines. Therefore we have announced the ESG policy with operating framework and goals as follows:

## “ESG Policy”

**BST Group We are ready for global sustainability.  
To drive business according to ESG guidelines**

| <br><b>Environmental</b>   | <br><b>Social</b>  | <br><b>Governance</b>  |
|---|---|---|
| <p>“<br/> <b>Focus on the environment protection and conservation of energy and natural resources with sustainable use of resources with the following targets</b><br/> ”</p> <ol style="list-style-type: none"> <li>1. Aim for net zero greenhouse gas emissions target within 2050 by 12% reduction of greenhouse gas emissions of Scope 1 and 2 within 2026 in comparison with 2019. <i>Rev</i></li> <li>2. Reduce energy consumption by 10% within 2026 in comparison with 2019</li> <li>3. Reduce water withdrawal by 20% within 2026 in comparison with 2019. <i>Rev</i></li> <li>4. Continue the zero hazardous and non-hazardous waste to landfill and increase wastutilization at least 90% by 2026.</li> <li>5. Strengthen VOCs emission control to better than standard.</li> <li>6. Reduce and control environment impact with zero pollution incidence impact to communities and nearby plants.</li> </ol> | <p>“<br/> <b>Conduct business for “No harm to anyone, anytime” and respect for labor and human rights together with social responsibility and stakeholders engagement with the following targets</b><br/> ”</p> <ol style="list-style-type: none"> <li>1. Intend to have no injury and occupational disease of employees and business partners from any work related incidences. <i>Rev</i></li> <li>2. Respect human right of every individual and ensure equitable treatment to all without discrimination with zero incidence of labor and human right violations.</li> <li>3. Conduct product risk assessment throughout its lifecycle and provision of 100% communication on the latest Safety Health and Environment information of all products within 2025 to ensure no incidence from adverse impact on health and safety for customers and concern stakeholders and reduce the impact on the environment.</li> <li>4. Promote and encourage all suppliers and business partners to comply with the company's sustainable development which consists of environmental, social, and governance practices. <i>Rev</i></li> <li>5. Engage the management and employees at all levels in participating in CSR activities by 100% to develop community enterprises to be strong in order to have better quality of life and sustainable income for the community and having community satisfaction level more than 92%. <i>Rev</i></li> </ol> | <p>“<br/> <b>Conduct the business properly and transparentl in all situations with good governance with the following targets</b><br/> ”</p> <ol style="list-style-type: none"> <li>1. Conduct the business in accordance with “BST Group - Code of Conduct” by communication and training all employee with 100% pass the Ethic test in order to understand the code of conduct and implement it properly to ensure no unethical incidence. <i>Rev</i></li> <li>2. Conduct the business legally including complying with related regulatory and requirements with no violations incidence of related legal and regulatory. <i>Rev</i></li> </ol> |

Announced on the date of 2 November 2022

INNOVATIVE CHEMICALS FOR VALUE GROWTH

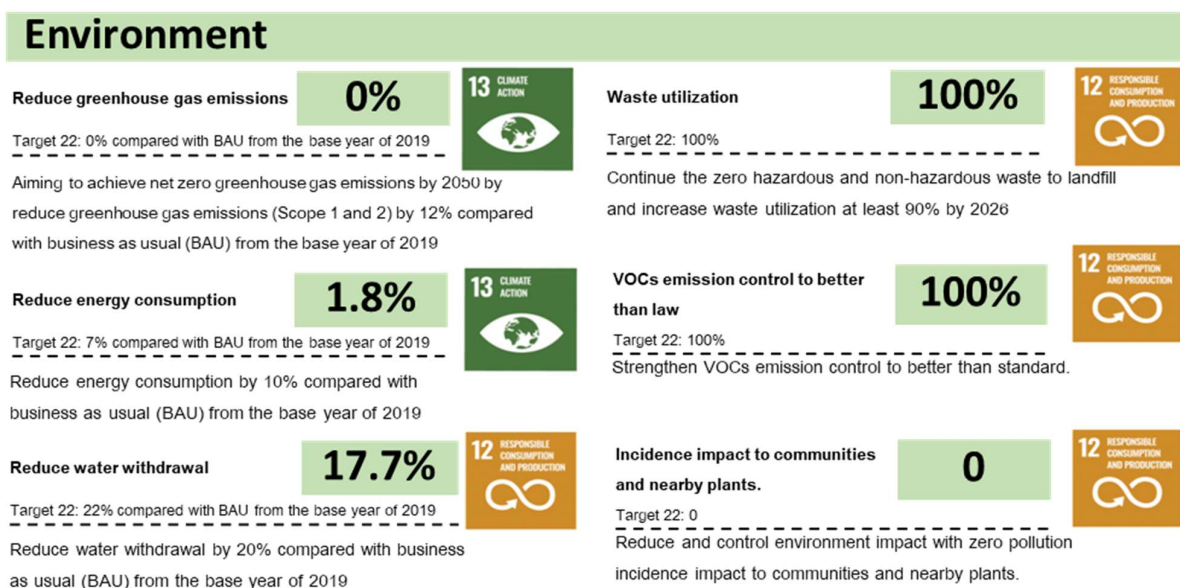
## Linking the UN Sustainable Development Goals (Sustainable Development Goals, SDGs)

Convinced that business sector plays a key role in the realization of the United Nations Sustainable Development Goals (SDGs), we are considering linking the SDGs to BST Group operations to drive achieving UN Sustainable Development goals and make the most positive to economic, social, and environmental impacts wherever we operate with the following links:

|  | SDGs Related to BST Group  | Related BST Group Operational Activities   |
|--|--|--|
|   | BST Group operates in the petrochemical industry. We therefore attach great importance to the health and safety of our employees and stakeholders. Covering the production process, service, transportation and risk management to in line with our vision of "No harm to everyone, every time" as well as promoting mobile medical activities for the health and well-being of the community.   | <ul style="list-style-type: none"> <li>• Process Safety (PSM)</li> <li>• Occupational health and safety standards ISO 45001</li> <li>• Employee health and safety care</li> <li>• Community and Social Responsible Activities - Mobile Medical Unit</li> </ul>   |
|   | To achieve good employment and a growing economy, BST Group focuses on treating employees according to human rights principles equally in all employment processes, no trafficking and child labors, and no discrimination and harassment in any matter. In addition, partners and business partners are encouraged to participate in business operations with ethics and promoting community enterprises for sustainable economic growth together | <ul style="list-style-type: none"> <li>• Human Rights Promotion Activities</li> <li>• Employee care and development</li> <li>• Business partner ethics (Supplier-Code of Conduct)</li> <li>• Community and Social Responsible Activities – Community Enterprises</li> </ul>  |
|   | BST Group places importance on the application of technology in production. Since before there is an investment or joint venture in any business new project implementation or change project to increase production efficiency, reduce environmental impact, reduce health and safety risks and conserve energy and natural resources sustainably.  | <ul style="list-style-type: none"> <li>• Seek the technology to reduce environmental impact.</li> <li>• Sustainable sourcing</li> <li>• Product Stewardship</li> </ul>   |
|   | To ensure our responsible to production and efficient use of resources, BST Group has established a steering committee to monitor and optimize the use of resources, water management, waste management as well as pollution management align with both short-term and long-term of ESG goals  | <ul style="list-style-type: none"> <li>• Water management</li> <li>• Waste management</li> <li>• Air quality management</li> </ul>   |
|  | Reducing greenhouse gas emissions is a global important issue. We have accelerated adaptation to build our capacity to cope with this change. By setting short-term and long-term plans and goals, as well as providing cooperation to support both the public and private sectors in supporting various projects. in reducing greenhouse gas emissions  | <ul style="list-style-type: none"> <li>• To achieve net zero greenhouse gas emissions by 2050 by reduce greenhouse gas emissions (Scope 1 and 2) by 12% by 2026 compared with business as usual (BAU) from the base year 2019</li> <li>• Energy reduction project</li> <li>• Encourage every product to receive carbon footprint certification.</li> </ul> |

## Sustainable Development Performance according to ESG Policy in 2022

Key sustainable development performance in 2022 according to the ESG policy can be summarized as follows:



## Social

**Injury and occupational disease of employees and business partners from any work related incidences**

0



Target 22: 0

No injury and occupational disease of employees and business partners from any work related incidences

**New Supplier signed the supplier code of conduct**

100%



Target 22: 100%

Promote and encourage all suppliers and business partners to comply with the company's sustainable development which consists of environmental, social, and governance practice

**Incidence of labor and human right violations**

0



Target 22: 0

Respect human right of every individual and ensure equitable treatment to all without discrimination with zero incidence of labor and human right violations

**Community Satisfaction**

72%



Target 22: >92%

Develop community enterprises to be strong in order to have better quality of life and sustainable income for the community and having community satisfaction level more than 92%.

## Governance

**All employees pass the Ethic test**

100%



Target 22: 100%

Communication and training all employees with 100% pass the Ethic test in order to understand the code of conduct

**Violations incidence of related legal and regulatory**

0



Target 22: 0

Conduct the business legally including complying with related regulatory and requirements with no violations incidence of related legal and regulatory

**Unethical incidence**

0



Target 22: 0

Understand the code of conduct and implement it properly to ensure no unethical incidence

## ESG index

In addition to the ESG policy announcement, BST Group have started to apply the ESG Index as an sustainability indicator in all employees levels and all functions to ensure that the guidelines in ESG policy are implemented effectively. Based on the ESG Index score we get; we will improve it in various areas in the next coming year.

| Sustainable Growth                                | %Weight | Rating 1    | Rate 2-4 | Rating 5      | Deployment                |
|---|---------|-------------|----------|---------------|---------------------------|
| <b>Environment</b>                                |         |             |          |               |                           |
| % 1,3 BD emission reduction (%)                   | 9%      | <Min.Target | Prorata  | > Max. Target | Concerned Department      |
| Energy per ton product (GJ/Ton Product)           | 9%      | <Min.Target | Prorata  | > Max. Target | Concerned Department      |
| GHG Emission per ton product (CO2/Ton Product)    | 9%      | <Min.Target | Prorata  | > Max. Target | Concerned Department      |
| Water withdrawal per ton product (M3/Ton Product) | 8%      | <Min.Target | Prorata  | > Max. Target | Concerned Department      |
| <b>Social Responsibility</b>                      |         |             |          |               |                           |
| % Employee satisfaction (%)                       | 4%      | <Min.Target | Prorata  | > Max. Target | Corporate KPI             |
| % Community satisfaction (%)                      | 4%      | <Min.Target | Prorata  | > Max. Target | Corporate KPI             |
| Accident (Level 2 up) Injury Rate (Rate)          | 9%      | <Min.Target | Prorata  | > Max. Target | Department (all employee) |
| License to operate (LTO) Incident Rate (Case)     | 9%      | <Min.Target | n.a.     | > Max. Target | Department (all employee) |
| Process Safety Incident Rate (Case)               | 9%      | <Min.Target | n.a.     | > Max. Target | Department (all employee) |
| <b>Governance</b>                                 |         |             |          |               |                           |
| No. of case from code of conduct (Case)           | 10%     | <Min.Target | n.a.     | > Max. Target | Department (all employee) |
| Number of surprise risk (Case)                    | 10%     | <Min.Target | n.a.     | > Max. Target | Department (all employee) |
| Number of Non compliance and regulation (Case)    | 10%     | <Min.Target | n.a.     | > Max. Target | Department (all employee) |

## 4. Environment Dimension

### ► Net Zero Greenhouse Gas Emissions

Greenhouse gas emissions reduction is the key agenda of COP26 meeting by United Nations Framework Convention on Climate Change in Glasgow on 31 October to 12 November 2021. At COP26, Thailand demonstrated its commitment along with the international members and its readiness to step up its efforts, by pledging to achieve Carbon Neutrality by 2050 and Net Zero GHG emissions by 2065.

BST Group stands ready to collaborate with all stakeholders in addressing climate issues, central to national and global priorities. On its part, BST Group targets Net Zero GHG emissions by 2050 by set short term target to reduce of net GHG emissions of scope 1 and 2 by 12% compared with business as usual (BAU) from the base year of 2019 and medium-term target to reduce of net GHG emissions 20% compared with business as usual (BAU) from the base year of 2019 by the following guidelines:

- Optimizing production to reduce energy consumption
- Introduction the new technologies to increase energy efficiency and carbon capture
- Use of renewable energy, clean energy to reduce the use of fossil fuels.
- Carbon offsetting through tree planting etc.

**BST Group's performance in 2022:** Greenhouse gas emissions was emitted 324,071 tons of carbon dioxide, decreasing 26,668 tons of carbon dioxide or 8% compared to 2021. However, the greenhouse gas emissions per ton of product compared to business as usual from the base year of 2019 was not met the target. This is due to 2 reasons:

1. **BST and NBL plants were shutdown for special maintenance.** Due to the economic recession, the plants were not fully operation. This is an opportunity to turnaround plants for maintenance. Before opening the equipment for maintenance, hydrocarbons in the processes need to be purged and burned at the flare, and emissions regulations must also be met. Therefore, the amount of greenhouse gas emissions is 17,895 tons of carbon dioxide emissions.

\*\*The flare burns the excess gas from the process system and to prevent it entering to environment.

2. **From combustion in the thermal oxidizer system at both BST Site 1 and Site 2,** this is to treat volatile organic compounds (VOC) from the production process under normal production conditions, equivalent to 3,260 tons of carbon dioxide emissions.

However, BST Group is still committed to sustainable environmental development and strictly follow the policies and goals set forth above and ready to collaborate with all stakeholders in addressing climate issues, central to national and global priorities.

### ► Reducing energy consumption

BST Group is committed to maximizing energy efficiency by reducing losses at every step, monitoring equipment in the production process, and also reducing greenhouse gas emissions from the production process.

## Strategy of Energy Management

1. Choose a low-energy production technology for the new production process
2. Operate existing process in a mode with the highest energy efficiency.
3. Monthly monitor energy usage trends and plan for continuous management.

The major energy reduction projects in 2022 are as follows:

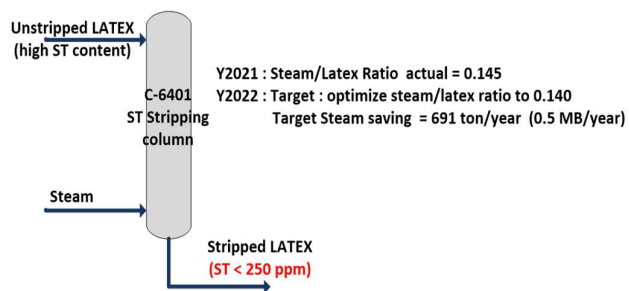
### ■ Reduce energy consumption at cooling systems (Site 1)

The cooling system has function for heat transfer and keeping the temperature and pressure of various streams in production process in accordance with the process design. Therefore, we have a project to reduce the energy consumption of cooling fans at the cooling system by adjusting the operating mode and controlling the temperature of the cooling system.

**Project Result:** Reduced energy by 5,244 gigajoules per year (target 1,920 gigajoules per year) and decrease 57% compared to before improvement.

### ■ Reduce energy consumption at Stripping Column - SBR Plant

A Stripping Column is a chemical equipment used for physical separation, where one or more components are removed by steam, where controlling the efficient use of steam is important, so we use the optimization method, which is the process of finding the best condition to optimize use of steam subject to production constraints.



**Project Result:** Reduced steam consumption by 691 tons of steam or 3,999 gigajoules per year (Target 2,003 gigajoules per year), and decrease 6.9% compared to before improvement.

### BST Group's performance in 2022:

From the special shutdown of BST and NBL plants due to the economic recession, as a result total energy 2,541,189 gigajoules were consumed, or decrease 1.8% compared with business as usual (BAU) from the base year of 2019. However, BST Group is still committed to the use of energy and resources to achieve efficiency and implement intensively and continuously strategic energy conservation projects.

### ► Systematic management control volatile organic matter of all sources.

BST Group is committed to managing and implementing projects to control air pollution both in-outside plant areas and surrounding communities to meet laws, regulations and international standards. We focus on the use of technology to reduce air pollution emissions, as well as cooperation with government and other petrochemical industry to manage this issue.

## Strategy and Action

1. Apply Best Available Technology to reduce VOCs problems
  - Installation of Thermal Oxidizer Unit both BST Site 1 and Site 2 to treat volatile organic compounds (VOCs) during normal production conditions
  - Installation of waste water stripping column to separate 1,3-Butadiene and recycle to process and send waste water for further treatment
2. Implement as a pilot group project to comply with Code of Practice for plant maintenance to reduce and minimize VOC emissions during turnaround or shutdown since 2020.

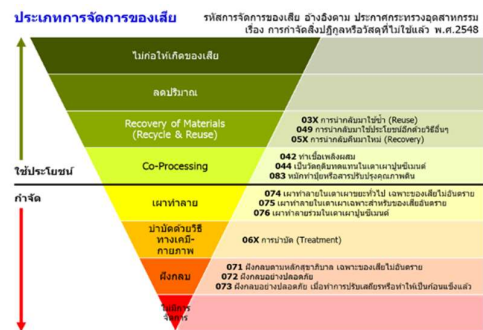
## BST Group's performance in 2022:

The amount of volatile organic matter (1,3-Butadiene) was released 329 kg, or 80% decrease compared with business as usual (BAU) from the base year of 2019.

## Waste Management

Inefficient or improper waste management will affect the environment and the communities living nearby. We have strategy and action as following

1. Find a waste management method that can be utilized for all waste items.
2. Gather companies that handle waste by utilizing waste in other methods.
3. Follow monthly trends, including planning and report results to the Sustainable Development Committee



**BST Group's performance in 2022:** Zero Waste to landfill and deliver waste to utilize 100% of total amount of waste generated

## Towards sustainability for bio and renewable raw materials

BST Group also places importance on the Circular Economy to drive sustainable business growth by managing resources more efficiently. There is a recycling of resources or materials which will result in reduction of waste generation. Ultimately, it leads to no waste.

In 2022, a pilot project on the use of renewable raw materials has been established to comply with the ISCC PLUS standard, which is expected to be certified by June 2023.

ISCC PLUS is a sustainability certification for bio-based and renewable raw materials that is part of the ISCC EU certification scheme, with a focus on raw material traceability within the supply chain. The ISCC PLUS standard is currently in worldwide use.

## 5. Social Dimension

BST Group focuses on conducting business for “No harm to anyone, anytime” and respect for labor and human rights together with social responsible and stakeholders’ engagement by promoting projects for each group of stakeholders as follows:

### ► Stakeholder Engagement Program

The BST Group recognizes the needs and expectations of stakeholders, as well as issues that may affect BST Group, so we set out the objectives of our engagement and engagement approach to meet the needs and expectations of all stakeholders. As shown in this table.

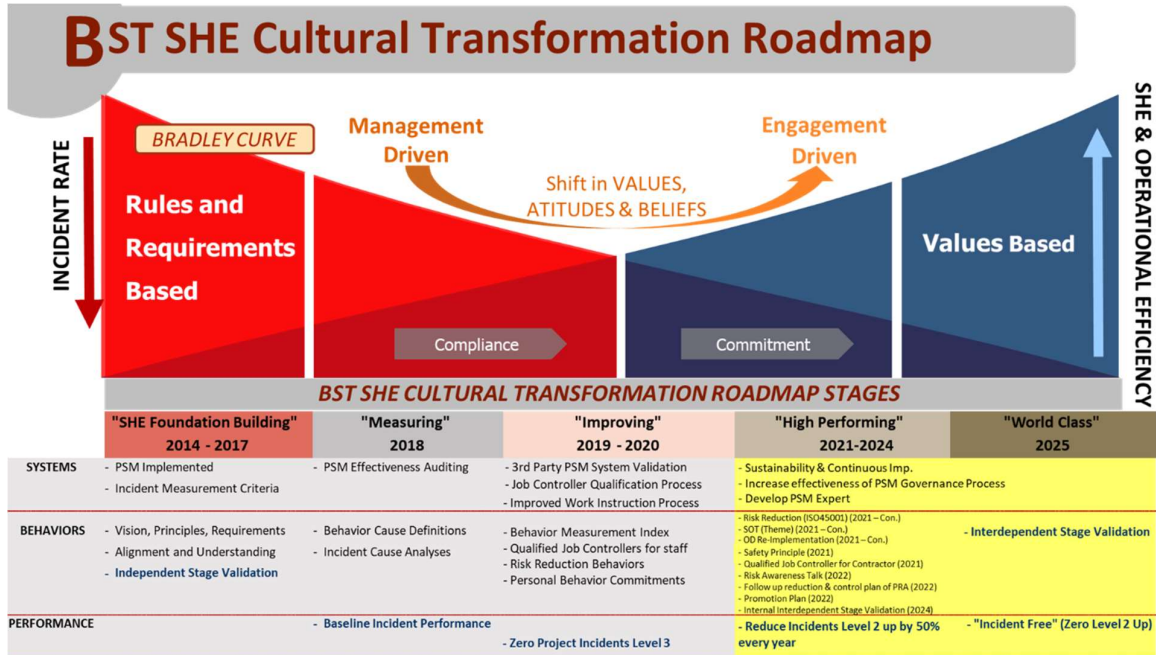
| Stakeholders     | The ESG needs and expectations of stakeholders   | Objective of our engagement   | Existing Engagement Approach of BST Group   |
|------------------|--|---|---|
| Shareholder      | <ul style="list-style-type: none"> <li>- Disclosure of company performance and new projects to allow shareholders to see continuous development and consider the development and progress of the organization.</li> <li>- The organization's strategic plan is strategically formulated and aligned with sustainable development.</li> </ul>   | <ul style="list-style-type: none"> <li>- Disclose important information and the Company's performance</li> <li>- Get opinions and suggestions for the company's development.</li> </ul>   | <ul style="list-style-type: none"> <li>- Hold shareholders' meeting once per year (usually held once per quarter)</li> <li>- Report the performance of the company through the shareholders' meeting.</li> </ul>  |
| Employee         | <ul style="list-style-type: none"> <li>- Communicate important information about the company movements</li> <li>- There is a channel for employees to present their opinions towards the organization and to acknowledge their problems and lead to solutions.</li> <li>- To acquire skill and increase employee potential to be consistent with the company direction</li> <li>- received good care from the company</li> </ul> | <ul style="list-style-type: none"> <li>- Communicate performance results, directions, and company movements</li> <li>- Develop employee skill &amp; capability</li> <li>- Understand employee needs and facilitate employees to work happily</li> </ul> | <ul style="list-style-type: none"> <li>- MDs Talk to listen employees' voices at least 2 times a year</li> <li>- Staff Meeting Activities where top management at site 1, 2 and HQ meet employees to share information once a quarter (Staff Meeting)</li> <li>- Communicate news to employees through various internal communication channels, e.g., Email, Line Group (BST Family), Facebook, BST Intranet (GURU), Public Relations Board, Plant Monthly Meeting.</li> <li>- Training according to the Training Matrix to meet the needs of that job position.</li> <li>- Provide activities to create relation with employees and their families, such as Family Day, employee club activities, etc.</li> <li>- Engagement Survey by the Human Resources Department 1 time per year</li> <li>- Disseminating information to create awareness and awareness of health care in crisis situations, such as during the outbreak of COVID-19, during the flood, through various communication channels, including internal meetings, email, LINE group (BST Family). Intranet (GURU)</li> </ul> |
| Business Partner | <ul style="list-style-type: none"> <li>- Support knowledge to take the environment, society and good governance into account to elevate the business partners, minimize operational and reputational risks.</li> <li>- Support and elevate business partners in order to develop and work efficiently</li> <li>- Share knowledge and new trends that may affect business partners performance</li> </ul>                         | <ul style="list-style-type: none"> <li>- Promote and oversee the safety and work environment of business partners.</li> <li>- Create value in the business partner including following the guidelines for sustainable development.</li> </ul>           | <ul style="list-style-type: none"> <li>- Build confidence for business partners in terms of environment, safety, occupational health and working environment with ISO 14001 and ISO 45001 certifications.</li> <li>- Training on occupational safety, health, and environment</li> <li>- Collaborate with logistics service companies providing domestic transportation services to install GPS and link signals to SCG Logistic Command Center (LCC) to monitor drivers' driving behavior 24 hours a day during cargo transportation.</li> <li>- Follow the terms of the contract</li> <li>- BST Group supplier code of conduct for Business partner commitment</li> <li>- Announce Sustainable Procurement Policy in 2022</li> </ul>  |



| Stakeholders                  | The ESG needs and expectations of stakeholders  | Objective of our engagement  | Existing Engagement Approach of BST Group  |
|-------------------------------|---|--|--|
| Customers                     | <ul style="list-style-type: none"> <li>- Produce and develop products according to customer needs</li> <li>- Conduct business according to ESG guidelines for sustainable development.</li> <li>- Expect the company comply with sustainable development guidelines such as Zero Emission, participate in the Ecovadis Sustainability Assessment, implement ISCC Plus certification, etc.</li> <li>- Channels for making complaints, suggestions, or comment</li> </ul> | <ul style="list-style-type: none"> <li>- Responding to customer needs in products and services</li> <li>- Promote and support businesses in line with sustainable development guidelines.</li> <li>- Create channels for customers for complaints and feedbacks.</li> </ul>          | <ul style="list-style-type: none"> <li>- Build confidence among customers in terms of environment, safety, occupational health and working environment with ISO 14001 and ISO 45001 certifications.</li> <li>- Laying the foundation for sustainable development according to ESG guidelines</li> <li>- Share knowledge and new trends that may affect customer performance.</li> <li>- Follow the terms and conditions of the contract</li> <li>- Participate in activities or sustainability performance assessments requested by customers.</li> <li>- Manage product risk assessments throughout the life cycle and communicate modern health information Safety and environment information for all products (Product Stewardship)</li> <li>- Develop business continuity management system (Business Continuing Management)</li> <li>- Receive complaints and feedback through direct channels with sales representatives including conducting a customer satisfaction survey every year.</li> </ul> |
| Communities and nearby plants | <ul style="list-style-type: none"> <li>- Maintain plant operation standards to prevent impacts on surrounding communities and the environment</li> <li>- Participate in improving the quality of life by promoting community enterprise to create career or sustainable income</li> <li>- Create public area that benefits the majority people in the community.</li> <li>- Engaging and building a good relationship with the community</li> </ul>                     | <ul style="list-style-type: none"> <li>- Live as a part of the community, respecting the rights and opinions of the community and preserve the community environment</li> <li>- Participate and improve the quality of life and create happiness for the community</li> </ul>        | <ul style="list-style-type: none"> <li>- Discussions and listen the communities' opinions and suggestions for next action including clarifying proactive measures on safety and the environment to the community periodically.</li> <li>- There is a system for receiving complaints from the community.</li> <li>- Participate in various community activities, visit the community areas to listen needs, and visit the community areas by the executives through the B2C project.</li> <li>- Support a visit of the Relations and Environment Committee together with the community to improve the quality of life of the community (tripartite)</li> </ul>   |
| Government Agency             | <ul style="list-style-type: none"> <li>- Strictly follow the law</li> <li>- Cooperate with government agencies to support various activities.</li> <li>- Disclose information transparently and properly</li> <li>- Create participation and build good relations with the government</li> </ul>  | <ul style="list-style-type: none"> <li>- Conduct business legally and strictly comply with related regulations.</li> <li>- Participate and give our opinions on regulations and practices</li> <li>- Cooperate and support various activities with the government sector.</li> </ul> | <ul style="list-style-type: none"> <li>- Communicate and get feedback from government agencies, both informal and official, such as tripartite committee, etc.</li> <li>- Participate and share opinions for regulations and laws that the government is currently in force or about to be enforced</li> <li>- Participate in government activities such as White Flag, Green Star, Eco Factory and join the MPR group to support proactive information dissemination and promote relations between the company and the government</li> </ul>  |
| Mass Media                    | <ul style="list-style-type: none"> <li>- Communicate information through local media</li> <li>- Engage and build good relations with the media</li> </ul>   | <ul style="list-style-type: none"> <li>- Communicate information through local media</li> <li>- Engage and build good relations with the media</li> </ul>  | <ul style="list-style-type: none"> <li>- Disseminate BST Group business news and information regularly on the company website or through online media.</li> <li>- Organize activities to promote continuous relationships.</li> <li>- Join the MPR group to support proactive information dissemination and promote relations between the company and the media</li> </ul>   |
| NGOs                          | <ul style="list-style-type: none"> <li>- Disclose information transparently and properly</li> <li>- Listen opinions and suggestions from civil society</li> <li>- Build partnerships to drive and advance issues related to sustainability</li> </ul>   | <ul style="list-style-type: none"> <li>- Disclose information transparently and properly</li> <li>- Listen opinions and suggestions from civil society</li> <li>- Build partnerships to drive and advance issues related to sustainability</li> </ul>                                | <ul style="list-style-type: none"> <li>- Published the annual sustainability report on the company website.</li> <li>- Create cooperation through various forums such as the PMC committee</li> <li>- Participate in showing sustainable development ideas through the Federation of Thai Industries</li> </ul>  |

MPR (Map Ta Phut Public Relation) หน่วยงาน Club of public relations of the company in Map Ta Phut area and nearby areas

ISO 45001 Certification



BST Group has a plan to improve the system and upgrade the safety culture to the worldclass level. The Dupont safety culture development model (Bradley curve) was used as a basis.

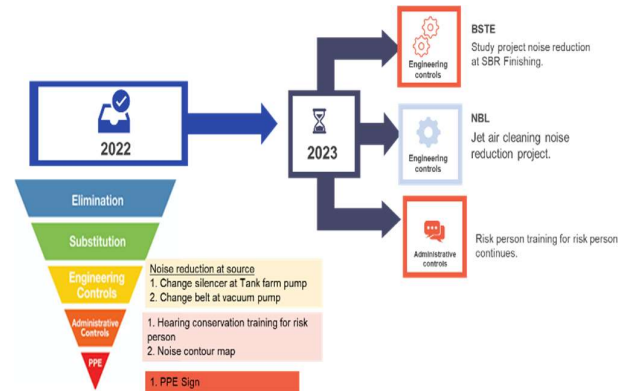
One of the important systems planning is applied the ISO 45001 Occupational Health and Safety Management System to prevent work-related injuries and illnesses for employees and related stakeholders, as well as provide a work place with safe and hygienic. BST Group received ISO 45001 certification for both 2 companies and 3 plants on May 20, 2022.



## ► Hearing Conservation Program

There are many types of occupational health risks to industrial workers involved. One of the risks that BST Group is particularly concerned about is noise hazard. To protect the hearing impairment of employees who work as prescribed by the Ministerial Regulations in work related to heat, light and noise and reduction of occupational health risks from risk assessment according to ISO 45001. BST Group has therefore implemented a hearing conservation project to prevent noise in the workplace with the following measures:

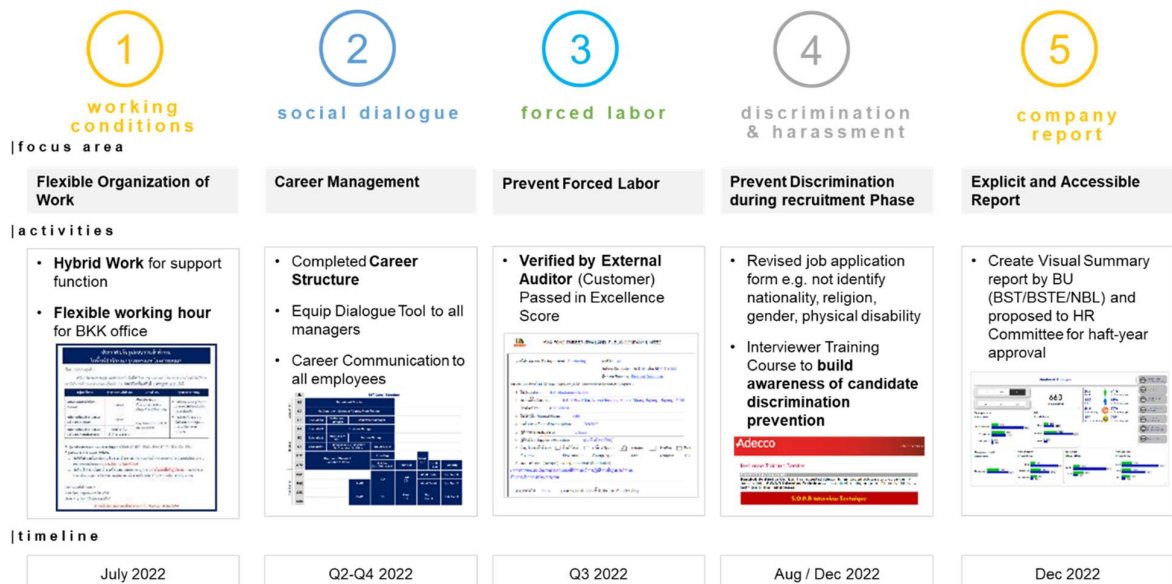
- Use of personal protective equipment
- Apply administrative controls, including Noise Contour Map and a training program for risk workers.
- Set up a noise reduction at source projects in each plant, which is planned to continue throughout 2022 and 2023, such as installing a noise suppressor for pump at the storage tank or changing the belt of various pumps, etc.



## ► Labor and Human Right Program

BST Group has passed the audit and has been certified Thai labor standards. (TLS 8001-2553 basic level) from the Department of Labor Protection and Welfare. The certification results are announced on the website of the Bureau of Labor Standards Development, specified on page 4, no. 29 and 25, dated June 28, 2022. This certification shows the intention that the company is committed to taking care of employees with a clear and fair management approach without discrimination, which is considered a sustainable business practice.

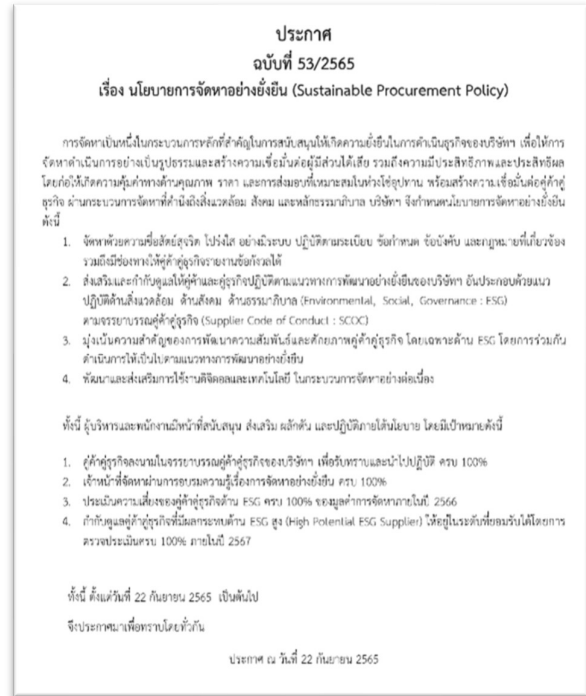
In 2022, the company has several important improvement projects to improve labor and human rights for employees, such as adjustments and flexibility in working hours, communication to employees prevention of discrimination during the recruitment process, etc.



## ► Sustainable Procurement Program

Procurement is one of the main processes that contribute to the sustainability of the Company's business. To build trust among stakeholders through a procurement process that takes the environment, social and governance into account including efficiency and effectiveness by creating value in terms of quality, price, and delivery appropriately in the supply chain, BST Group announced its sustainable procurement policy with targets on September 22, 2022.

In order to comply with the announced policy, BST Group has trained all procurement officers to have knowledge on sustainable procurement and has prepared a plan to assess the ESG risks of 100% of the procurement value suppliers by the year 2023 and a plan to supervise High Potential ESG Supplier to be at a acceptable level by 100% audit by 2024



## ► Corporate Social Responsibility Activity Projects in 2022

BST Group commit to remain Corporate Social Responsibility (CSR) activities to lead to sustainable development. There are many different CSR projects according to ESG guidelines as follows:

### Highlight CSR on Environment

- Aquatic animal species release project for the year 2022, BST Group organizes aquatic animal species release to increase marine and coastal resources in Rayong province. (20th consecutive year) at Kao Yod Small Boat Fisheries Group, Rayong Province



### Highlight CSR on Social

- This project provided scholarships for 38 communities at 15,000 baht each, totaling 570,000 baht, in order to ease the burden of education for families in the communities in Map Ta Phut municipality. which has been done continuously for the 14th year





- Project think, draft together and create good deeds

BST Group has implemented 17 joint projects, created good deeds, worth 360,000 baht, in which the management (B2C) who takes care of the community and employees residing in the community present projects that are beneficial to the public

- The Mobile Medical Unit Project

BST Group in collaboration with the Office of Public Health and Environment of Map Ta Phut Municipality organizes the project "BST Mobile Medical Unit Exhibition 2022" between 4-31 August 2022 by launching 7 proactive service units 13 times.



**Highlight CSR on Governance**

- BST Group Meets Community Project (Community Discussion)

This is online activity during COVID-19 to meet, talk, communicate news, exchange ideas with the community. To enhance understanding and fostering good relations between the community and BST Group for sustainable coexistence by conducting activities on March 29 – 30, 2022



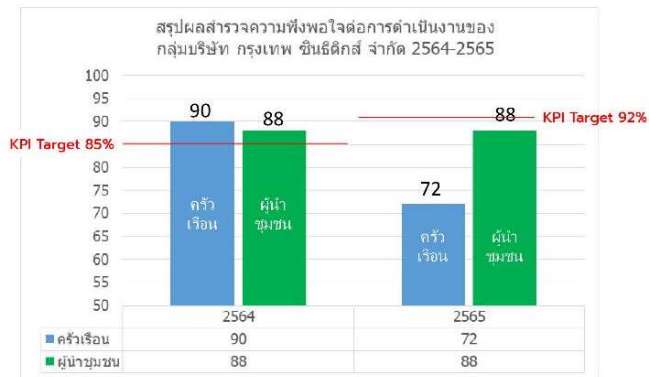
- BST Group Meets the Community Project No. 3/2022 (Open House Activity)

Open House Activity provides to meet, talk, communicate news, exchange ideas with the community face to face and support for retinal imaging machines to Chaloe Phrakiat HRH Princess Maha Chakri Sirindhorn Hospital, Rayong on December 20, 2022



## Community Satisfaction Survey

### % Community Satisfaction Survey (KPI 2023)



#### ปัจจัยที่คาดว่าส่งผลให้คะแนนภาคครัวเรือนลดลง

- สถานการณ์ Covid-19 ทำให้ไม่สามารถจัดกิจกรรมได้อย่างทั่วถึง อีกทั้งต้องจำกัดสถานที่และจำนวนผู้ร่วมกิจกรรม เช่น กิจกรรมสานเสวนา
- เมื่อสถานการณ์ Covid-19 คลี่คลายทำให้จัดกิจกรรมได้บ้าง แต่ภาคครัวเรือนต้องเลือกประกอบอาชีพเพื่อสร้างรายได้จนเหลือครอบครัว
- การลงพื้นที่พบปะชุมชนแบบทางการและไม่เป็นทางการทำได้ไม่เต็มประสิทธิภาพ

Annual Community Satisfaction Survey was conducted by a 3rd party company. They surveyed the community households, community leaders, government agencies and neighboring plants in order to use the survey results to develop further improvement plans for BST Group.

According to the 2022 Community Satisfaction Survey, BST Group received a community satisfaction rating of 72%.

## 6. Governance Dimension

BST Group focuses on conducting business with integrity and transparency in all situations with good governance.

In 2022, there are important projects that implement for corporate governance as follows:

### ► Code of Conduct Revision to comply with ESG

BST Group has revised the 3rd BST Group CODE OF CONDUCT version by updating its content to align with ESG guidelines and linking it with various sustainability-related policies announced with relevant guidelines and examples. So that employees can easily understand and apply.

| Code of Conduct                              | Rev. 3   | ESG      | Link to Policy   |
|--|----------|----------|--|
| 1 Labor and Human Right                      | Revision | <b>S</b> | Labor and Human Right Policy   |
| 2 Environment, health, and safety            | New      | <b>E</b> | Safet, Health and Environment Policy   |
| 3 Anti-Fraud and Corruption                  | Revision | <b>G</b> | Anti-Fraud and Corruption Policy   |
| 4 Gifts and Entertainment                    | Revision | <b>G</b> |  |
| 5 Conflict of interest                       | Revision | <b>G</b> |  |
| 6 Political Action                           | Revision | <b>G</b> |  |
| 7 Information and Property                   | New      | <b>G</b> |  |
| 8 Disclosure and Communication               | New      | <b>G</b> |  |
| 9 Company Transactions                       | New      | <b>G</b> | Policy on good corporate governance and conducting business in accordance with legal requirements. |
| 10 Overseas business and international trade | New      | <b>G</b> |  |
| 11 Trade Competition                         | Revision | <b>G</b> |  |
| 12 Money Laundering Prevention               | New      | <b>G</b> |  |

As it is a major improvement of Code of Conduct, therefore, there were 4 classes of training to make all employees aware and understand the organization's code of conduct more clearly, along with providing a ethic test. In which every employee passes the ethic test with 100% score.

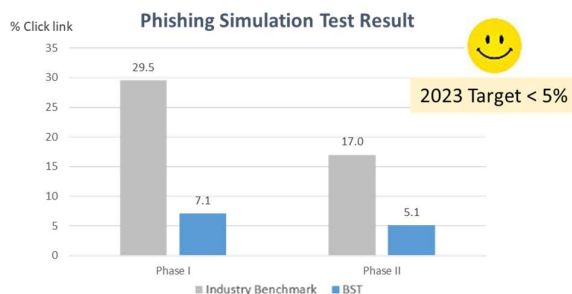
### ► Phishing Simulation Test

Cyber attacks are no longer just about IT departments. Statistically, attacks are usually initiated by groups of ordinary employees and high-level executives. This is because senior management is often an important source of information. Therefore, familiarizing all employees with Cyber Attacks in the organization is essential.

BST Group brings “Phishing Simulation Test” test with employees by sending virtual attack emails and without telling employees in advance. If an employee clicks on a link in a simulated attack email, means the employee is not aware of this type of attack.

**Methodology:**

- Phase I, before cybersecurity awareness training - July 4 – 18, 2022 - 648 employees
- Cybersecurity awareness training - October 3 – 31, 2022
- Phase II, after cybersecurity awareness training - December 4 – 19, 2022 - 730 employees

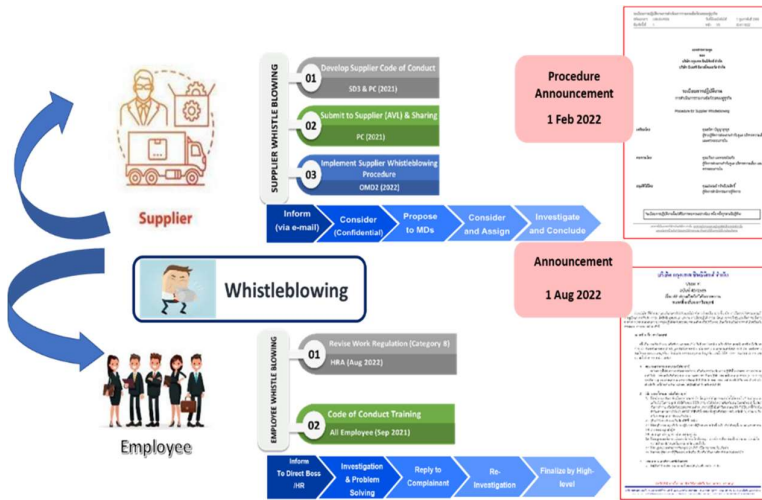


Benchmark Source: Phishing by Industry Benchmark Report 2022 by KnowBe4

The test is divided into before and after training to educate employees compared to the benchmark of industrial factories with 250-999 employees. It was found that our employees can do better than the benchmark both before and after training. BST Group has set this test as a standard that must be done every year onward.

In addition, for system protection and monitoring to prevent attacks, IT has set Multi-Factor Authentication (MFA), authentication in many forms and arrange checking the access of employees from unsafe places, such as logging in from abroad, etc.

## Whistleblowing System



To provide channels for whistleblowing for non-compliance with BST Group Code of Conduct, we have announced procedure and channels for whistleblowing for business partners and employees as follows:

- Whistleblowing for employees as announced in Section 8 of the work regulations on August 1, 2022 and has communicated to employees to acknowledge along with Code of Conduct training.

## Business Assurance Audit

To promote good governance with transparency and prevent fraud in the company's work process. BST Group has set up a Business Assurance Audit to verify the work process of the departments that are at risk of corruption.

The steps in the picture are:



- Identify functions to be accessed.
- Develop checklist
- Do Self Assessment.
- Analyze and prepare a report.
- Follow up corrective action and close
- Prepare for the next round



## ► Response plan and preparations for personal data breach incidents and drills

From Section 37 (4) - Personal Data Protection Act B.E. 2562 "In case of personal data breach and there is a high risk that it will affect the rights and freedoms of the data subject. The data controller shall notify the Office of the Personal Data Protection Commission without delay within 72 hours from the date of knowledge of the cause as far as possible."

To mitigate this risk, BST Group has established a response plan and preparation in the event of a personal data breach by providing a response team from relevant parties with 3 main steps:

- Finding and notifying and preliminary problem solving
- Investigation, consider the impact and mitigate problems
- Summarizing the causes and determining the corrective and preventive actions.

3 main steps must be taken within 72 hours in order to notify the Office of the Personal Data Protection Commission in time as required by law.



In this regard, we have organized 2 rehearsal drills and invited SCG to participate as an observer. After SCG observed the readiness of BST Group, they invited us to share our knowledge with SCG as well.

On the other hand, for various opinions that we have received, we have improved and announced this response plan and preparations for personal data breach incidents as company procedure on December 8, 2022

SCG = The Siam Cement Public Company Limited

## 7. Pride of Sustainability in 2022

### Thailand Labor Management Excellence Award 2022

On October 31, 2022, BST Group received 3 outstanding workplace awards on labor relations and labor welfare for the year 2022 from the Rayong Labor Protection and Welfare Office. Bangkok Synthetics Co., Ltd received the award for the 4<sup>th</sup>

consecutive year, Bangkok Synthetics Co., Ltd. (NBR latex production: NBL) received the award for the 2<sup>nd</sup> year and BST Elastomers Co., Ltd. (BSTE) received the award for the 4<sup>th</sup> consecutive year.



### Eco Factory

On September 30, 2022, BST Group received a plaque for Eco Factory, organized by Water and Environment Institute for Sustainability, The Federation of Thai Industries together with the Industrial Estate Authority of Thailand at the BITEC Exhibition and Convention Center, Bangkok in the Eco Innovation Forum 2022 seminar under the concept of "ECO Journey to Carbon Neutrality".

The Eco Factory Award is considered to promote environmentally friendly business operations including focusing on developing and improving the production process as well as environmental management based on sustainable development for community responsibilities.

### BST Group รับรางวัลโรงงานอุตสาหกรรมเชิงนิเวศ (Eco Factory)



### CSR- DIW Continuous Award 2022

On August 24, 2022, BST Group received the CSR-DIW Continuous Award 2022 from the Department of Industrial Works, Ministry of Industry which was honored by Mr. Wanchai Phanomchai, Director-General of the Department of Industrial Works presided over the award ceremony this time at Challenger Hall, IMPACT Muang Thong Thani, Nonthaburi Province.



BST group, all 3 companies, have followed 7 main topics and 9 criteria, which are the principles of operation that lead to acceptance from the community and society for sustainable co-existence.

## 2021 Environmental Governance and Safety Award

On July 25, 2022, BST Group received the award of Environmental Governance and Safety 2021 (Green Star Award) 3 awards: (Gold Star Award) 3 awards, a total of 6 awards

The Environmental Governance and Safety Awards are given to organizations that maintain environmental management standards in terms of safety and social responsibility at an excellent level. This award organized by the Industrial Estate Authority of

Thailand (IEAT) to promote participation in environmental and safety of industrial sectors and encourage entrepreneurs to have good governance, environment and safety in business operations.



## ECOVADIS

Bangkok Synthetics (NBL Plant) and BST Elastomers have been awarded a Silver medal and rated in Top 25 companies assessed by ECOVADIS. Our Sustainability Score Rating is 59/100 or 79th percentile

**Bangkok Synthetics (NBL Plant) and BST Elastomers**  
have been awarded a Silver medal and rated in **Top 25** companies assessed by **ECOVADIS**

**Our Sustainability Score Rating 59/100 or 79th percentile**

79th percentile, it means our score is higher than or equal to the score of 79 percent of all companies rated by **ECOVADIS**. The percentile rank is calculated at the time of score publication

**ECOVADIS** provides holistic sustainability ratings service of companies, delivered via a global cloud-based SaaS platform. The EcoVadis Rating covers a broad range of non-financial management systems including Environmental, Labor & Human Rights, Ethics and Sustainable Procurement impacts. Each company is rated on the material issues as they pertain to their company's size, location and industry.

79th percentile, it means our score is higher than or equal to the score of 79 percent of all companies rated by EcoVadis. The percentile rank is calculated at the time of score publication and the score is valid for one year.

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## Appendix: Sustainable Development Performance 2019-2022

### Environment Performance

| ผลการดำเนินงานด้านสิ่งแวดล้อม  | หน่วย                  | 2019      | 2020      | 2021      | 2022      |
|--|------------------------|-----------|-----------|-----------|-----------|
| <b>การปลดปล่อยก๊าซเรือนกระจก (Green House Gas)</b>                   | ton CO <sub>2</sub> eq | 303,224   | 246,089   | 350,739   | 324,071   |
| a) GHG Scope 1 (Stationary source)                                   | ton CO <sub>2</sub> eq | 8,521     | 15,233    | 24,274    | 20,654    |
| b) GHG Scope 2   | ton CO <sub>2</sub> eq | 294,703   | 230,856   | 326,465   | 303,417   |
| ลดลงร้อยละเมื่อเทียบกับกรณีปกติ (BAU) ปีฐาน 2562 (ค.ศ. 2019)         |                        |           | 0.0%      | 0.0%      | 0.0%      |
| <b>ปริมาณการใช้พลังงาน (Energy Consumption)</b>                      | GJ                     | 2,587,376 | 1,933,476 | 2,734,214 | 2,541,189 |
| a) พลังงานไฟฟ้า  | GJ                     | 405,341   | 233,965   | 527,936   | 513,225   |
| b) พลังงานความร้อน   | GJ                     | 2,182,035 | 1,699,511 | 2,206,278 | 2,027,964 |
| <b>Green House Gas Emission</b>                                      | Unit                   | 2019      | 2020      | 2021      | 2022      |
| a) GHG Scope 1 (Stationary source)                                   | ton CO <sub>2</sub> eq | 8,521     | 15,233    | 24,274    | 20,654    |
| b) GHG Scope 2   | ton CO <sub>2</sub> eq | 294,703   | 230,856   | 326,465   | 303,417   |
| Reduction compared with business as usual from the base year of 2019 |                        |           | 0.0%      | 0.0%      | 0.0%      |
| <b>Energy Consumption</b>  | GJ                     | 2,587,376 | 1,933,476 | 2,734,214 | 2,541,189 |
| a) Electrical Energy   | GJ                     | 405,341   | 233,965   | 527,936   | 513,225   |
| b) Heat Energy   | GJ                     | 2,182,035 | 1,699,511 | 2,206,278 | 2,027,964 |
| Reduction compared with business as usual from the base year of 2019 |                        |           | 0.0%      | 4.3%      | 1.8%      |
| <b>Water Withdrawal</b>  | m <sup>3</sup>         | 2,299,036 | 1,703,124 | 2,014,815 | 1,892,589 |
| Reduction compared with business as usual from the base year of 2019 |                        |           | 0%        | 21%       | 18%       |
| <b>1,3-Butadiene Emission</b>  | kg                     | 1,610     | 682       | 573       | 329       |
| Reduction compared with business as usual from the base year of 2019 |                        |           | 43%       | 68%       | 80%       |
| <b>Acrylonitrile Emission</b>  | kg                     | 515       | 386       | 261       | 212       |
| Reduction compared with business as usual from the base year of 2019 |                        |           | 20%       | 48%       | 54%       |
| <b>Yield</b>   | %                      | 96.7%     | 95.9%     | 96.4%     | 96.7%     |
| <b>Hazardous Waste</b>   | kg                     | 1,171,476 | 960,739   | 1,170,419 | 957,535   |
| % Utilization  | %                      | 91%       | 89%       | 92%       | 100%      |
| <b>Non- Hazardous Waste</b>  | kg                     | 230,055   | 172,150   | 273,270   | 220,430   |
| % Utilization  | %                      | 100%      | 100%      | 100%      | 100%      |

## D Safety and Occupational Health Performance

|  | 2019<br>(2562) | 2020<br>(2563) | 2021<br>(2564) | 2022<br>(2565) |
|--|----------------|----------------|----------------|----------------|
| อัตราการเกิดอุบัติเหตุชั้นรักษาพยาบาลขึ้นไป (ราย ต่อ 1,000,000/ชั่วโมง-คน)   | 0.88           | 1.17           | 1.57           | 0.8            |
| อัตราการเกิดอุบัติเหตุถึงรักษาพยาบาลขึ้นไป (ราย ต่อ 200,000 ชั่วโมง-คน)  | 0.31           | 0.23           | 0.32           | 0.16           |
| อัตราการเกิดอุบัติเหตุถึงชั้นหยุดงาน (ราย ต่อ 1,000,000/ชั่วโมง-คน)  | 0.09           | 0              | 0              | 0              |
| อัตราการเกิดอุบัติเหตุถึงชั้นหยุดงาน (ราย ต่อ 200,000 ชั่วโมง-คน)  | 0.22           | 0              | 0              | 0              |
| อัตราการเจ็บป่วยและโรคจากการทำงาน (ราย ต่อ 200,000 ชั่วโมง-คน)   | 0              | 0              | 0              | 0              |
| จำนวนผู้เสียชีวิตจากอุบัติเหตุทั้งหมด (ราย)  | 0              | 0              | 0              | 0              |
| - ชาย : หญิง   | 0:0            | 0:0            | 0:0            | 0:0            |
| จำนวนสารเคมีหกรั่วไหลระดับ 2 ขึ้นไป (ครั้ง)  | 1              | 0              | 1              | 1              |
| * ระดับ 2 ขึ้นไป หมายถึง การรั่วไหลของสารเคมีหรือก๊าซไอไฟที่มีปริมาณมากกว่าเกณฑ์ Material Release Threshold Quantities (TQ) หรือการรั่วไหลของวัสดุที่ไม่เป็นอันตราย (ยกเว้นอากาศ ไนโตรเจน น้ำ ไอ น้ำควบแน่น) ที่มีปริมาณมากกว่า 5,000 กิโลกรัม หรือการเกิดเพลิงไหม้ หรือ การระเบิด ในพื้นที่บริษัท และส่งผลให้ต้องเข้าแผนควบคุมภาวะฉุกเฉินระดับ 2 (ตามแผนการจัดการภาวะวิกฤต) |                |                |                |                |
| จำนวนอุบัติการณ์ที่ส่งผลกระทบต่อใบอนุญาตโรงงาน ด้านความปลอดภัย อาชีวอนามัย และสิ่งแวดล้อม (ครั้ง)  | 0.0            | 1.0            | 2.0            | 0.0            |
| * ระดับ 2 ขึ้นไป หมายถึง การได้รับคำร้องเรียนเป็นลายลักษณ์อักษรจากโรงงานข้างเคียง หรือการได้รับคำร้องเรียนโดยวาจาหรือลายลักษณ์อักษรจากหน่วยงานราชการหรือชุมชน ด้านสิ่งแวดล้อม (กลิ่น, ครัน) หรือเสียงรบกวน จากเหตุการณ์ผิดปกติของการรั่วไหลสารเคมีหรือพลังงาน (โดยทวนสอบแล้ว)  |                |                |                |                |

|  | 2019 | 2020 | 2021 | 2022 |
|--|------|------|------|------|
| Total Recordable Work-Related Injury and Occupational Illness & Disease Rate<br>(Cases/1,000,000 Hours Worked of employee and contractor)  | 0.88 | 1.17 | 1.57 | 0.8  |
| Lost Time Injury Frequency Rate<br>(Cases/1,000,000 Hours Worked of employee and contractor)   | 0.09 | 0    | 0    | 0    |
| Occupational Illness & Disease Rate<br>(Cases/1,000,000 Hours Worked of employee and contractor)   | 0    | 0    | 0    | 0    |
| Number of Fatality Work-Related Injury and Occupational Illness & Disease<br>(Case)  | 0    | 0    | 0    | 0    |
| - Female : Male  | 0:0  | 0:0  | 0:0  | 0:0  |
| Number of Chemicals Spillage (Level 2 up Cases)  | 1    | 0    | 1    | 1    |
| *Level 2 or higher means leaks of flammable chemicals or gases above the Material Release Threshold Quantities (TQ) or leaks of non-hazardous materials (except air, nitrogen, water, steam, condensate) that more than 5,000 kg or a fire or explosion in the company area and resulted in entering the emergency control plan level 2 (according to the crisis management plan). |      |      |      |      |
| Number of Safety, Occupational Health and Environment Incidents affecting<br>Operating Permit Licenses (Level 2 up Cases)  | 0    | 1    | 2    | 0    |
| * Level 2 and above means receiving a written complaint from a neighboring plant, or receiving verbal or written complaints from government agencies or communities environmental (smell, smoke) or noise from abnormal events of chemical or energy leaks (by verification)   |      |      |      |      |

## D CSR Performance

|   | 2019 | 2020     | 2021     | 2022  |
|---|------|----------|----------|-------|
| Expenses to support CSR activities (million baht)   | 4.0  | 3.0      | 5.1      | 6.0   |
| Mobile medical units for community health care (times)                                      | 8    | COVID-19 | COVID-19 | 13    |
| The community enterprises to create careers and generate income (number of new enterprises) | 2    | 3        | 3        | 3     |
| Community Satisfaction Survey (household sector)  | 88%  | 84%      | 90%      | 72%   |
| Employee participation in CSR activities (% participation)                                  | 78%  | 66%      | 100%     | 100%  |
| Employee worked hours for CSR   | -    | -        | -        | 5,013 |
| Management worked hours for CSR   | -    | -        | -        | 345   |
| *COVID-19 – No activity due to COVID-19   |      |          |          |       |

## ▶ Labor and Human Right Performance

|   | Unit    | 2020         | 2021         | 2022         |
|---|---------|--------------|--------------|--------------|
| <b>Employee Information</b>   |         |              |              |              |
| <b>Number of Employees</b>  | Persons | 617          | 636          | 660          |
| ● By location (H.O. : Site 1 : Site 2)                              | %       | 14 : 56 : 30 | 13 : 55 : 32 | 13 : 52 : 35 |
| ● By working hour (Office hour : Shift : Flexible hour)             | %       | 56 : 44 : 0  | 53 : 47 : 0  | 42 : 45 : 13 |
| ● By on site or Hybrid workplace                                    | %       | 77 : 23      | 78 : 22      | 74 : 26      |
| ● By Gender (Female : Male)   | %       | 30 : 70      | 30 : 70      | 31 : 69      |
| ● Manufacturing Function : Support Function                         | %       | 77 : 23      | 78 : 22      | 77 : 23      |
| ● By Employee Level (Management : Professional : Semi-professional) | %       | 5 : 36 : 59  | 4 : 37 : 59  | 4 : 40 : 56  |
| ● By Age group (Under 30 yr : 30-50 yr : over 50 yr)                | %       | 23 : 70 : 7  | 24 : 69 : 7  | 24 : 68 : 8  |
| <b>Female share of total workforce</b>                              |         |              |              |              |
| ● Manufacturing Function : Support Function                         | %       | 14 : 16      | 14 : 16      | 15 : 16      |
| ● Female in Top management  | %       | 2            | 2            | 2            |
| ● Female in Middle management                                       | %       | 16           | 16           | 19           |
| ● Female in management position in revenue-generating function      | %       | 2            | 2            | 4            |
| <b>Number of New Employees</b>                                      | Persons | 63           | 105          | 63           |
| ● New Employees of total workforce                                  | %       | 10           | 16           | 10           |
| ● By Gender (Female : Male)   | %       | 11 : 89      | 44 : 56      | 43 : 57      |
| ● By Employee Level (Management : Professional : Semi-professional) | %       | 0 : 21 : 79  | 1 : 61 : 38  | 0 : 52 : 48  |
| ● By Age group (Under 30 yr : 30-50 yr : over 50 yr)                | %       | 71 : 29 : 0  | 76 : 22 : 2  | 82 : 18 : 0  |
| <b>Number of Employee Turnover</b>                                  | Persons | 32           | 42           | 45           |
| ● Employee Turnover of total workforce                              | %       | 5            | 7            | 7            |
| ● By Gender (Female : Male)   | %       | 41 : 59      | 67 : 33      | 40 : 60      |
| ● By Employee Level (Management : Professional : Semi-professional) | %       | 0 : 59 : 41  | 10 : 64 : 26 | 9 : 58 : 33  |
| ● By Age group (Under 30 yr : 30-50 yr : over 50 yr)                | %       | 38 : 56 : 6  | 33 : 57 : 10 | 38 : 51 : 11 |
| <b>Number of Voluntary Resignation</b>                              | Persons | 30           | 38           | 40           |
| ● Employee Voluntary Resignation of total workforce                 | %       | 5            | 6            | 6            |
| ● By Gender (Female : Male)   | %       | 40 : 60      | 68 : 32      | 40 : 60      |
| ● By Employee Level (Management : Professional : Semi-professional) | %       | 0 : 57 : 43  | 0 : 71 : 29  | 3 : 65 : 32  |
| ● By Age group (Under 30 yr : 30-50 yr : over 50 yr)                | %       | 40 : 60 : 0  | 37 : 63 : 0  | 42 : 55 : 3  |
| <b>Proportion of participation in Labor Organizations</b>           | %       | 100          | 100          | 100          |
| <b>Return to work after Parental Leave</b>                          |         |              |              |              |
| ● Maternity leave   | Persons | 7            | 4            | 3            |
| ● Return to work after Maternity leave                              | Persons | 7            | 4            | 3            |
| ● Number of male employees taking maternity leave                   | Persons | 10           | 14           | 12           |
| <b>Proportion of employee leave</b>                                 |         |              |              |              |
| ● Sick Leave  | %       | 18           | 15           | 26           |
| ● Work-related leave  | %       | 0            | 0            | 0            |
| ● Others  | %       | 82           | 85           | 74           |

## ► Labor and Human Right Performance (Continue)

|  | Unit         | 2020         | 2021        | 2022        |
|--|--------------|--------------|-------------|-------------|
| <b>Training and Development</b>  |              |              |             |             |
| Average hours of training and development                                      | Hours/Person | 6            | 26          | 25          |
| Average amount spent on training and development                               | Baht/Person  | 1,031        | 5,531       | 5,117       |
| <b>Employees receiving annual performance appraisals</b>                       | %            | 100          | 100         | 100         |
| <b>Number of positions filled by internal candidates (Rotation/ Promotion)</b> | Persons      | 123          | 200         | 150         |
| ● Positions filled by internal candidates of total workforce                   | %            | 20           | 31          | 23          |
| ● By Gender (Female : Male)  | %            | 50 : 50      | 35 : 65     | 40 : 60     |
| ● By Employee Level (Management : Professional : Semi-professional)            | %            | 10 : 49 : 41 | 5 : 52 : 44 | 6 : 53 : 41 |
| ● By Age group (Under 30 yr : 30-50 yr : over 50 yr)                           | %            | 20 : 74 : 6  | 14 : 77 : 9 | 11 : 82 : 7 |
| <b>Average salary of female to male</b>  |              |              |             |             |
| <b>Management Level (Base Salary Only)</b>                                     |              |              |             |             |
| ● Female   | Million Baht | 3.23         | 3.17        | 3.16        |
| ● Male   | Million Baht | 3.58         | 3.57        | 3.69        |
| <b>Management Level (Base Salary and other cash incentives)</b>                |              |              |             |             |
| ● Female   | Million Baht | 3.61         | 3.63        | 3.28        |
| ● Male   | Million Baht | 4.10         | 4.14        | 3.90        |
| <b>Professional Level (Base Salary Only)</b>                                   |              |              |             |             |
| ● Female   | Million Baht | 0.86         | 0.81        | 0.85        |
| ● Male   | Million Baht | 0.93         | 0.93        | 0.97        |
| <b>Professional Level (Base Salary and other cash incentives)</b>              |              |              |             |             |
| ● Female   | Million Baht | 1.10         | 1.05        | 1.03        |
| ● Male   | Million Baht | 1.26         | 1.28        | 1.23        |
| <b>Semi-Professional Level (Base Salary Only)</b>                              |              |              |             |             |
| ● Female   | Million Baht | 0.34         | 0.34        | 0.36        |
| ● Male   | Million Baht | 0.35         | 0.35        | 0.36        |
| <b>Semi-Professional Level (Base Salary and other cash incentives)</b>         |              |              |             |             |
| ● Female   | Million Baht | 0.49         | 0.51        | 0.50        |
| ● Male   | Million Baht | 0.55         | 0.55        | 0.54        |
| <b>Labor and Human Right Violation</b>   |              |              |             |             |
| Incidence of Labor and Human Right Violation                                   | Case         | 0            | 0           | 0           |
| Number of children under 15 years employed                                     | Person       | 0            | 0           | 0           |

## Sustainable Procurement Performance

|  | 2019  | 2020  | 2021   | 2022   |
|--|-------|-------|--------|--------|
| <b>Economic</b>  |       |       |        |        |
| Registered Suppliers (AVL - Approved Vendor List) received QCD Supplier Evaluation   | 100%  | 100%  | 100%   | 100%   |
| <b>Environment</b>   |       |       |        |        |
| Procurement Value with environmentally friendly suppliers (Million Baht)   | 9,582 | 5,362 | 11,562 | 12,174 |
| Procurement items with environmentally friendly suppliers (Cases)  | 14    | 17    | 17     | 17     |
| Number of business partners obtaining green industry level 2 or higher (Cases)   | 68    | 50    | 50     | 45     |
| <b>Social</b>  |       |       |        |        |
| Percentage of contractors in the production process passing the BST group's safety assessment  | 100%  | 100%  | 100%   | 100%   |
| Percentage of transporter contractors passing the BST group's safety assessment  | 100%  | 100%  | 100%   | 100%   |
| Lost Time Injury Frequency Rate of Contractor (Cases/1,000,000 Hours Worked of Contractor)   | 0.07  | 0     | 0      | 0      |
| <b>Governance</b>  |       |       |        |        |
| Percentage of new supplier signing BST Group Supplier Code of Conduct<br>*2021 means the number of current business partners                                     | -     | -     | 95%    | 100%   |
| Percentage of contracts signed with business partners included clause of Environmental, Governance, Labor and Human Rights<br>* Implementation started Jun. 2022 | -     | -     | -      | 16%    |
| Percentage of procurement officers/buyers received training on sustainable procurement   | -     | -     | -      | 100%   |

\* Environmentally friendly procurement means procuring products and services that are labeled environmentally friendly.

\*\* Environmental label is a label that shows the properties of products that have less impact on the environment when compare to products that perform the same function

\*\*\* There are 4 types of environmental labels.

- 1) A label certified by an independent organization who guarantees that the product is environmentally friendly better than the same type of product, such as the green label of Thailand
- 2) Product label by producer, distributor or exporter who shows the environmental value of the product itself (Self-Declared Environment Claims) and does not require verification by a third party, such as the SCG ECO Value label.
- 3) Labels that show quantitative details of energy consumption, natural resources, and the amount of pollution generated by the product, such as carbon labels, organic product certification labels, and carbon footprint.
- 4) Single Issue Label is focus on single issues, such as energy saving labels for computers or electrical appliances, such as Energy Star Labels on computer equipment or energy saving labels number 5.

## Governance Performance

|  | 2019 | 2020 | 2021 | 2022 |
|--|------|------|------|------|
| Percentage of Employees Passing Ethic Test (%)                         | n.a. | n.a. | 100% | 100% |
| Whistleblowing on violating the organization's code of conduct (Cases) | n.a. | n.a. | n.a. | 0    |
| ● From Business Partners (Cases)                                       | n.a. | n.a. | n.a. | 0    |
| ● From Employee (Cases)  | n.a. | n.a. | n.a. | 0    |
| Whistleblowing on fraud and corruption (Cases)                         | n.a. | n.a. | n.a. | 0    |
| ● From Business Partners (Cases)                                       | n.a. | n.a. | n.a. | 0    |
| ● From Employee (Cases)  | n.a. | n.a. | n.a. | 0    |
| Whistleblowing on discrimination or unfair treatment (Cases)           | n.a. | n.a. | n.a. | 0    |
| ● From Business Partners (Cases)                                       | n.a. | n.a. | n.a. | 0    |
| ● From Employee (Cases)  | n.a. | n.a. | n.a. | 0    |
| Incidence of legal and regulations violation                           | n.a. | n.a. | 0    | 0    |
| ● Incidence of legal violation   | n.a. | n.a. | 0    | 0    |
| ● Incidence of personal data breach                                    | n.a. | n.a. | 0    | 0    |
| Incidence of information security breach                               | n.a. | n.a. | 2    | 0    |

n.a. - Not available