



GREEN HORIZONS

GOING THE DISTANCE

Sustainability Report 2023

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ABOUT THE COVER

Our theme for this year's report, *Going the Distance*, exemplifies our unwavering commitment to going the extra mile and breaching new frontiers in our sustainability journey. As we spearhead sustainable transformation across our ports and supply chain operations, the cover image illustrates our aspiration of clear pathways towards decarbonisation forged across our fabric of port networks, enhancing the sustainability of trade flows around the world.

ABOUT THIS REPORT

GRI 2-2, 2-3, 2-5

Reporting Period and Scope

This is PSA International's fourth sustainability report, published on an annual basis. It provides a summary of our sustainability commitments and our progress in managing our sustainability issues. At PSA, we understand that forging a path towards a more sustainable and equitable future begins with a commitment to transparent and responsible reporting.

Information in this report pertains to the financial year 1 January 2023 to 31 December 2023 and may reference events in previous years where relevant. The Group's performance data from [page 23 – 86](#) of this report covers all our business entities involved in container terminals, rail/inland terminals, inland container depots/warehouses, marine and IT services. The data of select indicators for PSA BDP is available on [page 87](#).

Global Reporting Initiative (GRI) Standards

This report has been prepared in accordance with the GRI Universal Standards 2021, and is guided by the following GRI Reporting Principles to ensure high-quality and proper presentation of the reported information:



Accuracy

Reporting information that is correct and sufficiently detailed to allow an assessment of PSA's impacts



Completeness

Providing sufficient information to enable an assessment of PSA's impacts during the reporting period



Balance

Reporting information in an unbiased way and providing a fair representation of PSA's negative and positive impacts



Sustainability Context

Reporting information about our impacts in the wider context of sustainable development



Clarity

Presenting information in a way that is accessible and understandable



Timeliness

Reporting information on a regular schedule and making it available in time for information users to make decisions



Comparability

Selecting, compiling, and reporting information consistently to enable an analysis of changes in PSA's impacts over time and an analysis of these impacts relative to other organisations



Verifiability

Gathering, recording, compiling, and analysing information in such a way that information can be examined to establish its quality

For more information on specific standards applied and disclosures reported, please refer to the GRI Content Index on [page 88](#).

Assurance

The data in this report has undergone rigorous internal review, including an independent external assurance exercise for selected key disclosures covering our business entities involved in container terminals, rail/inland terminals, inland container depots/warehouses, marine and IT services. Please refer to [pages 93 to 96](#) for the assurance statement and scope of data assured. Assurance has been conducted in accordance with ISAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information. Entities within PSA have undergone a

pre-assurance exercise for Scope 3 emissions, while PSA BDP has undergone a pre-assurance exercise for Scope 1 and 2 emissions.

Contact

We welcome comments, feedback and questions from our stakeholders regarding this report to help us improve and advance in our sustainability performance and communication.

Please contact Group Sustainability at:

✉ sustainability@globalpsa.com

2023 HIGHLIGHTS

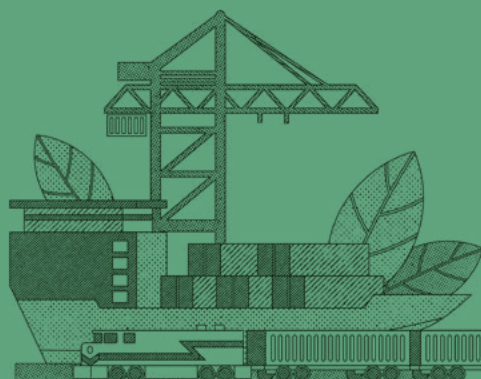


Taking Climate Action

- Grew our capacity of renewable energy self-generation facilities, resulting in 13,000 MWh of solar energy generated by our business units in 2023.
- Conducted and disclosed our climate change scenario analysis to assess the resilience of our business against climate change.
- Launched the Green Finance Framework within the Group to better position our entities to access the green loan and bond markets.

Transforming Supply Chains

- Expanded our OptEVoyage program, facilitating just-in-time vessel arrivals for six liners and about 90 services.
- Grew our intermodal transport offerings, assisting customers in switching from road to rail, thereby reducing their carbon footprint. Together, PSA BDP and PSA Italy launched PSA's first sustainable reefer rail service in Europe.

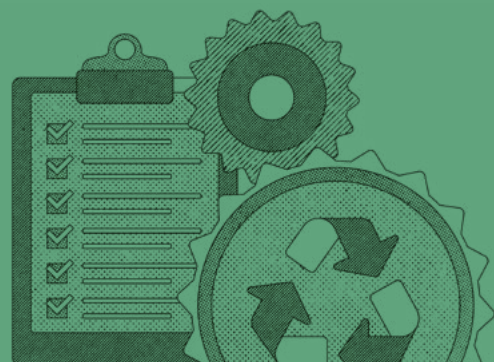


Nurturing A Future-Ready Workforce

- As of end 2023, reached close to 10,000 employees globally for the "Greenfish Climate Action" e-learning program.
- Achieved an engagement rate of 95% in the 2023 Employee Opinion Poll (EOP) across our global portfolio.
- Launched the Digital Skills Academy (DSA) to support PSA's digital transformation efforts and growth.

Stewarding Responsible Business

- Achieved the 2023 target of implementing requirements for the use of Sustainable Concrete in 50% of our new major civil infrastructure construction projects.
- Launched PSA BDP diversity, equity and inclusion (DEI) councils in Europe, META and LATAM on top of the existing foundational council in North America.



GROUP CHAIRMAN'S MESSAGE

In 2023, companies were compelled to navigate an increasingly challenging landscape, marked by elevated interest rates, a tightening labour market and heightened geopolitical tensions, all of which have impacted global economic growth. The port and logistics sector continues to be pivotal in enabling world trade, but the sector's extensive reach also renders it vulnerable to fluctuations in the global environment. At the same time, we are faced with the harsh realities of a warming world.

The PSA global team has continued to rise to the challenge and break new ground. I am thankful for the steadfast support of our management, staff, unions and invaluable stakeholders who continue to work alongside us as we uphold our commitment to being a leading global port operator and trusted partner to cargo stakeholders.

Even as we strive to deliver increasing value for our customers and partners, our ongoing efforts in sustainability remain a key focus for PSA. These initiatives encompass a broad spectrum, from enhancing our operational efficiency, to making significant strides in reducing our environmental footprint, while catalysing industry-wide change through strategic partnerships.

I am heartened by the global recognition our efforts are garnering. Notably at the Asian Freight, Logistics and Supply Chain (AFLAS) Awards 2023, PSA International achieved the "Best Global Container Terminal Operator" award for the fifth time, while PSA Singapore earned its inaugural "Best Green Container Terminal" accolade. PSA Antwerp also secured the "Best Container Terminal - Europe" award for the fifth time.

CONNECTING AND GREENING SUPPLY CHAINS

As a leading global port operator with supply chain capabilities, we are in a unique position to drive meaningful change within our industry and the global supply chains that we support.



At PSA, beyond our day-to-day operations as a central pillar of global trade, we also strive to evolve supply chains to be more connected, greener, and more resilient.

Recognising that more sustainable global trade begins with increased monitoring capabilities and transparency in our logistics carbon footprint, PSA joined other leading global organisations to co-develop the Guidance for End-to-End GHG Reporting of Logistics Emissions, which was launched at the World Economic Forum (WEF) Annual Forum in 2023. The initiative focuses on quantifying logistics emissions to support emissions-free industry goals.

In parallel, our business units across the world are also making significant headways in connecting nodes. PSA Indonesia has partnered with PT Kereta Api Indonesia (Persero) (KAI) to enhance the rail and rail-linked logistics ecosystem, fostering an efficient and sustainable multi-modal transportation network. Eastern Sea Laem Chabang Terminal in Thailand, together with JWD Transport Services, launched the Green Transport Lane service, a dedicated Electric Vehicle trucking route between Laem Chabang seaport and Lat Krabang Dryport. The service is the first of its kind in Thailand and offers sustainable solutions for cargo owners as it reduces carbon emissions, compared to conventional diesel trucking. Beyond the port, fully electric container trucks will be used to cover trips between Lat Krabang Inland Container Depot and Laem Chabang Port.

In November 2023, Ashcroft Terminal Ltd. (ATL) signed a letter of intent with the Vancouver Fraser Port Authority to invest and build rail infrastructure at the terminal to increase efficiency within the Port of Vancouver, support capacity growth and enhance resiliency within the critical Asia-Pacific Gateway trade corridor.

Over in Belgium, PSA Breakbulk officially launched the Port of Antwerp's first Project Cargo Ecosystem. With direct tide-free access to the sea and the hinterland, the Ecosystem offers the infrastructure, equipment, and value-added services for industrial partners to load, unload, store and handle all types of project cargo within one dedicated location.

At a cross-industry level, PSA strives to shape the decarbonisation of transport and logistics through our participation and advocacy at global platforms. This includes being an active member of the World Economic Forum Supply Chain & Transport cluster, and providing our support to the Global Maritime Forum's Short-term Action Taskforce on Operational Efficiency, underlining our commitment towards enhancing operational efficiency for the shipping industry.

ADVANCING OUR CLIMATE INITIATIVE

To limit global warming and mitigate the potential effects of climate change, the world needs to collectively take significant steps toward identifying, understanding and managing its environmental and carbon footprint. This crucially involves corporations adopting a more responsible and proactive stance.

PSA has successfully completed its inaugural assessment by CDP for the Climate Change Assessment 2023, with PSA achieving a "B" score on this first submission. This marks a commendable beginning, and we remain committed to enhancing our climate action efforts and disclosures.

To complement our transition to net zero carbon emissions by 2050, we are actively adopting technologies in line with our carbon abatement pathways.

A major energy transition effort is the large-scale implementation of electric prime mover (ePM) fleet into our terminals. Our container terminals in the Southeast Asia, Northeast Asia, Europe and the Mediterranean regions have embarked on deployment of battery-powered ePMs.

Tuas Port in Singapore continues to progress steadily in its development, bringing us a step forward in our pursuit of reaching net zero emissions by 2050 for Scope 1 and 2 emissions. Besides incorporating world-class sustainable engineering features in its development, the mega port is set to be a game-changer in greening and digitalising port operations, while supporting a synergistic flow of industrial and supply chain activities in the wider Tuas Ecosystem.

NURTURING PEOPLE AND ENGAGING COMMUNITIES

We recognise our role as a responsible corporate citizen in the communities where we operate. As we scale up our operations, we are fortunate to be able to also contribute towards uplifting of communities through growth opportunities.

In November 2023, Mersin International Port (MIP) launched the over USD 450 million East Med Hub 2 (EMH2) project which will improve the terminal's annual handling capacity. It is expected that upon completion, EMH2 will contribute significantly to the local economy with direct and indirect employment opportunities.

Beyond capacity and employment creation, PSA also actively engages local communities to provide relevant and tangible support. Such initiatives include providing volunteer support, organising sporting activities and fundraisers, as well as promoting local arts and culture. We care for our communities and are deeply committed to doing our part to support the communities during times of crisis; such as the Türkiye earthquake in February 2023. Our business units in Europe, Mediterranean, and the Americas collaborated to provide vital humanitarian aid and essential equipment, as well as organised fundraising initiatives, raising close to USD 100,000 for aid relief efforts.

All these will not be possible without our employees who are the heart of our operations. Our staff participated in volunteering activities throughout 2023, demonstrating that their dedication extends beyond the workplace, enriching our communities and exemplifying values of compassion and service.

I would like to take this moment to also thank our Board Directors for their astute counsel and guidance; and our management, staff and unions for their dedication, skills and commitment which form the foundation upon which our success is built. Their value and contributions to PSA are recognised and celebrated as what continues to propel us forward.

LOOKING AHEAD

Integrating sustainability considerations within the business is a key cornerstone of our continuing growth journey and instrumental in guiding us as we navigate the constantly evolving landscape.

By working closely with our customers, partners and stakeholders, I am confident that we can continue to create sustainable value and positive impact on the business, the industry and the communities we serve, and look forward to advancing the frontiers on our sustainability quest.



Peter Voser
Group Chairman
July 2024

GROUP CEO'S MESSAGE

In the past year, the world has seen a sea of challenges, from geopolitical tensions and economic uncertainties, to record breaking weather events and natural disasters. These have led to disruptions to global trade flows and supply chains, challenging stakeholders to proactively adapt and navigate these turbulent waters.

Despite these volatile times, I am proud to share that PSA achieved a record 94.8 million Twenty-foot Equivalent Units (TEUs) of containers handled in 2023, a growth of 4.3% compared to the previous year. On the supply chain side of the business, PSA BDP completed an estimated 1.5 million shipments. Along with the strong operational performance, PSA has also made unswerving strides to stay on course to achieving our sustainability ambitions.



ENHANCING OUR LOW-CARBON TRANSPORT CAPABILITIES

Sustainability and decarbonisation remain a key enabler and enhancer to our business.

On a Groupwide level, we take on a methodical and comprehensive approach to ensure that decarbonisation is adopted across our portfolio of assets and businesses, leveraging tools and technologies that will help achieve our goal of net zero emissions by 2050 for Scope 1 and 2 emissions. The Climate Response Management System (CRMS), coupled with supporting standards and frameworks, guide our business units in their decarbonisation approach.

We continue to work with like-minded partners to pursue new innovative solutions to reduce our direct emissions. This includes the world's first hydrogen dual-fuel straddle carrier, which was developed and unveiled in March 2023 by Antwerp Terminal Services (ATS) at the Port of Antwerp in Belgium along with its partner CMB.TECH. Subsequently, MSC PSA European Terminal (MPET) and PSA Antwerp, alongside ATS, also introduced the first fully electric straddle carrier under their collaborative Green Straddle Carrier program.

On the energy front, having commissioned a solar farm with O2 Power, PSA Mumbai became India's first 100% renewable-powered container terminal. Drawing renewable electricity from PSA Mumbai's Open Access Solar Plant, PSA BDP collaborated with Dow India to establish a zero emissions transport corridor via deployment of a fleet of electric trucks. PSA in China has set up a joint venture investing in distributed renewable energy projects, including a first project distributing 5.5 MW of solar energy in the Qinzhou Port area, alongside partners Tianjin Ocean Shipping Co., Ltd. and Guangxi Beibu Gulf Luhai New Energy.

As a leading global port operator, we strive to develop environmentally responsible port infrastructures that are innovative and sustainable. Expansion works are progressing steadily at Tuas Port which is well positioned to be the pinnacle of environmental sustainability. Tuas Port will deploy electrified equipment and vehicles such as Automated Guided Vehicles (AGVs) to effectively lower our carbon emissions. By tapping smart engineering, power management platforms, and other technologies, Tuas Port will boost its overall productivity and effectiveness, further decarbonising our operations.

At PSA, we recognise the significance of implementing a coherent and unified strategy throughout our operations. In June 2023, we launched the Group's Green Finance Framework to complement PSA's decarbonisation plans. This framework better positions our entities to tap the green loan and bond markets, with an emphasis on investible areas including clean transportation, energy efficiency, renewable energy, and waste management.

CONNECTING THE WORLD SUSTAINABLY WITH DIGITAL AND SUPPLY CHAIN SOLUTIONS

Besides focusing internally on decarbonisation across PSA, we are also catalysing sustainable change in the port ecosystem to achieve our Node to Network strategy.

In Singapore, our proprietary solution – OptETruck – uses AI to facilitate smarter trip planning and eliminate operational inefficiencies. This solution was introduced by PSA Singapore for the haulier community and has been welcomed by multiple haulier companies who have adopted OptETruck with outstanding results, reducing their empty truck trips by over 50%. In 2023, this translated to an annual reduction of about 10 million kilograms of CO₂ emissions, which is equivalent to planting 300,000 trees in a year.

Another innovation implemented in PSA Singapore is OptEVoyage, which aims to achieve bunker savings and carbon emissions reduction by helping vessels arrive at the port just-in-time through the digital solution. Over the course of 2023, OptEVoyage witnessed substantial growth, doubling to six liners on board, including Pacific International Lines (PIL).

PSA continues to sharpen our delivery edge through innovative port adjacencies and expanding our intermodal transport offerings. Over in Europe, PSA Italy launched the Stuttgart Express, a rail service that connects PSA Genova Pra' with Stuttgart in Southern Germany, while PSA Italy and PSA BDP launched PSA's first sustainable reefer rail transport service in Europe via the Southern Express rail connection between Basel in Switzerland and Genoa in Italy. PSA BDP was also appointed by Automotive Cells Company (ACC), one of Europe's leading Electric Vehicle (EV) battery manufacturers, to be its logistics service provider in the Northern France region. By routing through PSA BDP's state-of-the-art warehouse in Dunkirk, this unlocks opportunities for sustainable intermodal solutions like e-trucks, e-barges and rail transportation, facilitating ACC's ambition of zero emissions and circular supply chains.

In South Asia, PSA India has proven its capabilities as a port ecosystem operator for its customers. Acting as a single point of contact for end-to-end solutions execution, we have not only facilitated cost-effective and environmentally friendly cargo movements from PSA Mumbai to hinterland

locations via PSA India's rail connections, but also created more value for customers by providing cross stuffing, last-mile delivery, and empty container return services.

OUR PEOPLE, OUR STRENGTH

Our success hinges on the dedication of our employees and unions; the loyalty of our customers, the trust of our business partners, and the support of the communities in which we operate. We recognise that our people propel our success, and we are committed to their development and wellbeing.

Our strong FISH culture unites our workforce, with the Employee Opinion Poll continuing to serve as an important barometer of our employees' aspirations, priorities and concerns. At the same time, raising the capabilities of our people ensures we maintain our competitive edge. For example, PSA University launched the Digital Skills Academy (DSA) to support PSA's digital transformation efforts and growth. By focusing on data, technology and automation capability building, the DSA strengthens the foundational capabilities and functional expertise of our workforce, enabling them to navigate the increasingly complex digital environment.

We are also committed to uplifting the communities where we operate. In 2023, we continued to extend financial aid to support the underprivileged while concurrently fostering a culture of social responsibility within our workforce across the Group. From providing aid during times of crisis, to rolling up their sleeves for hands-on community projects, our employees actively participated in community initiatives, exemplifying the spirit of compassion and solidarity.

LOOKING AHEAD

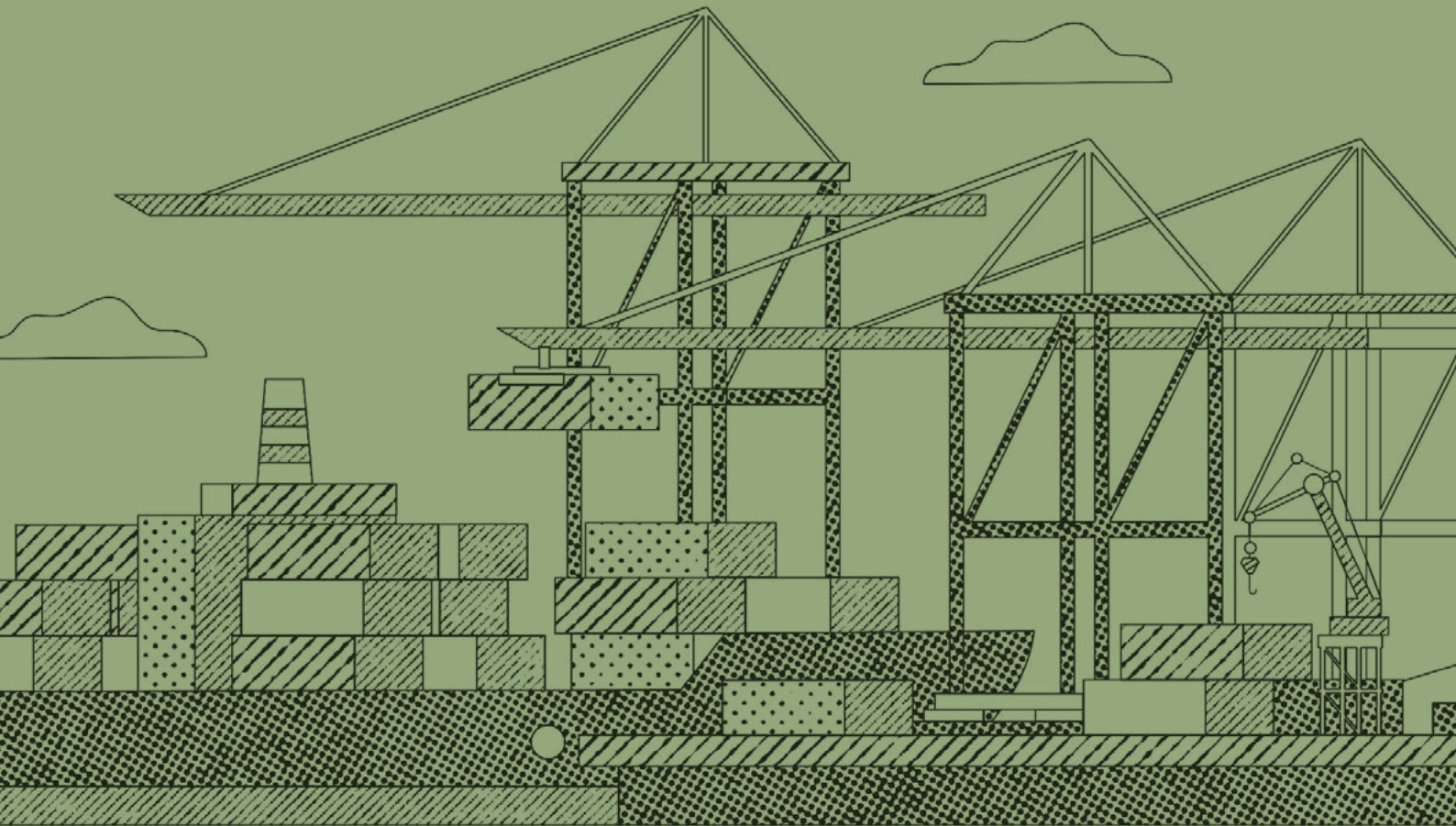
While 2023 presented us with unexpected challenges, it also highlighted the remarkable adaptability and resilience of our team as well as the global community. I take great pride in our accomplishments, the efforts of our people, and eagerly anticipate the next phase of our journey.

Looking ahead to 2024, PSA will continue strengthening our fabric of ports network, enabling sustainable global trade flows and delivering best-in-class services to our customers and partners. I am confident that with an aligned purpose, we can facilitate a more connected world, embracing sustainability every step of the way.



Ong Kim Pong
Group CEO
July 2024

ABOUT PSA INTERNATIONAL

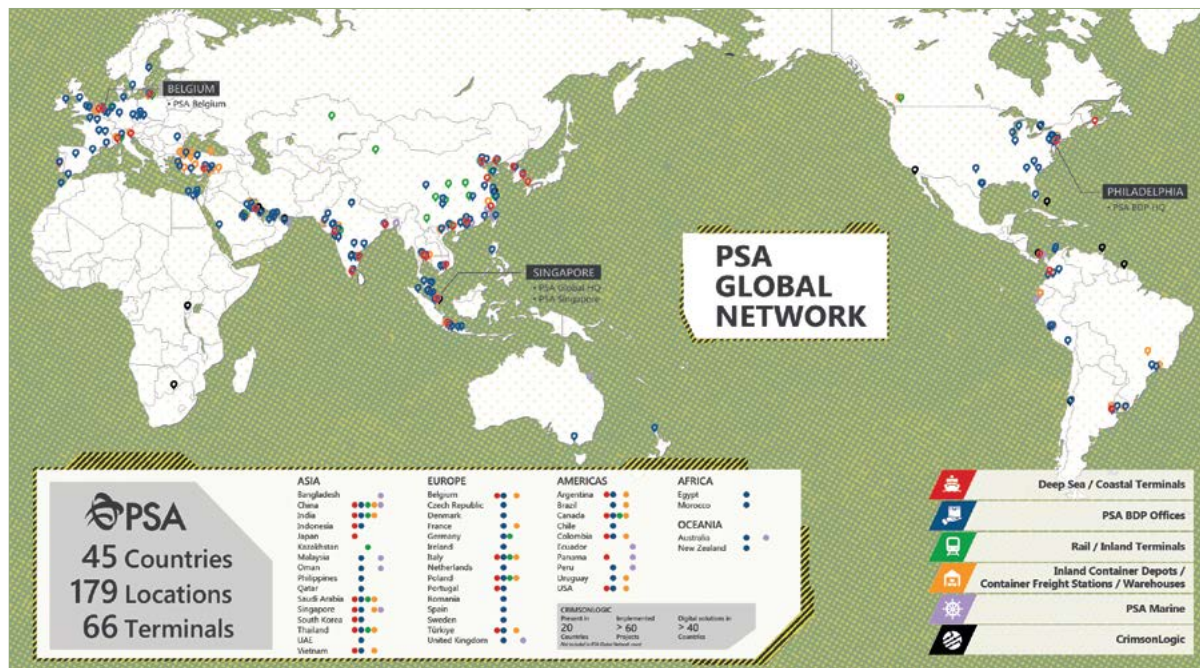


PSA International Pte Ltd (“PSA”) is a leading global port operator and trusted partner to cargo stakeholders. PSA facilitates global trade connectivity via our extensive network of ports as well as complementary port adjacent services such as marine and digital solutions, offering our customers unparalleled entry into the global marketplace.

Acknowledging our crucial role in the global supply chain, PSA, as the partner of choice is committed to shaping and establishing more sustainable and resilient trade flows for the future.

Overview of PSA International

GRI 2-1, 2-6, 2-28



Headquartered in Singapore, PSA manages a comprehensive portfolio of more than 60 terminals spanning deepsea, rail and inland terminals, across 170 locations in 45 countries. This encompasses key operations in Singapore and Belgium, along with associated ventures in supply chain management, marine services, and digital/IT services supporting trade facilitation. The holding company of PSA is Temasek Holdings (Private) Limited, a company incorporated in Singapore.

For more information about PSA, please refer to our [Annual Report 2023](#) and [corporate website](#).



GLOBAL CONTAINER THROUGHPUT OF
94.8 MILLION TEUs
AT OUR PORT PROJECTS
AROUND THE WORLD



SGD 7,095 MILLION IN GROUP REVENUE



OVER 60
DEEPSEA, RAIL AND INLAND
TERMINALS GLOBALLY



260,000
CONTAINERS MOVED DAILY AT OUR
PORT PROJECTS AROUND THE WORLD



GLOBAL WORKFORCE OF
55,000 EMPLOYEES

PSA handled 94.8 million Twenty-foot Equivalent Units ("TEUs") for the year ended 31 December 2023, representing a growth of 4.3% compared to 2022. PSA Group revenue was SGD 7,095 million and profit from operations was SGD 2,109 million.

PSA's operating entities under its Ports core business are organised into the following regions:

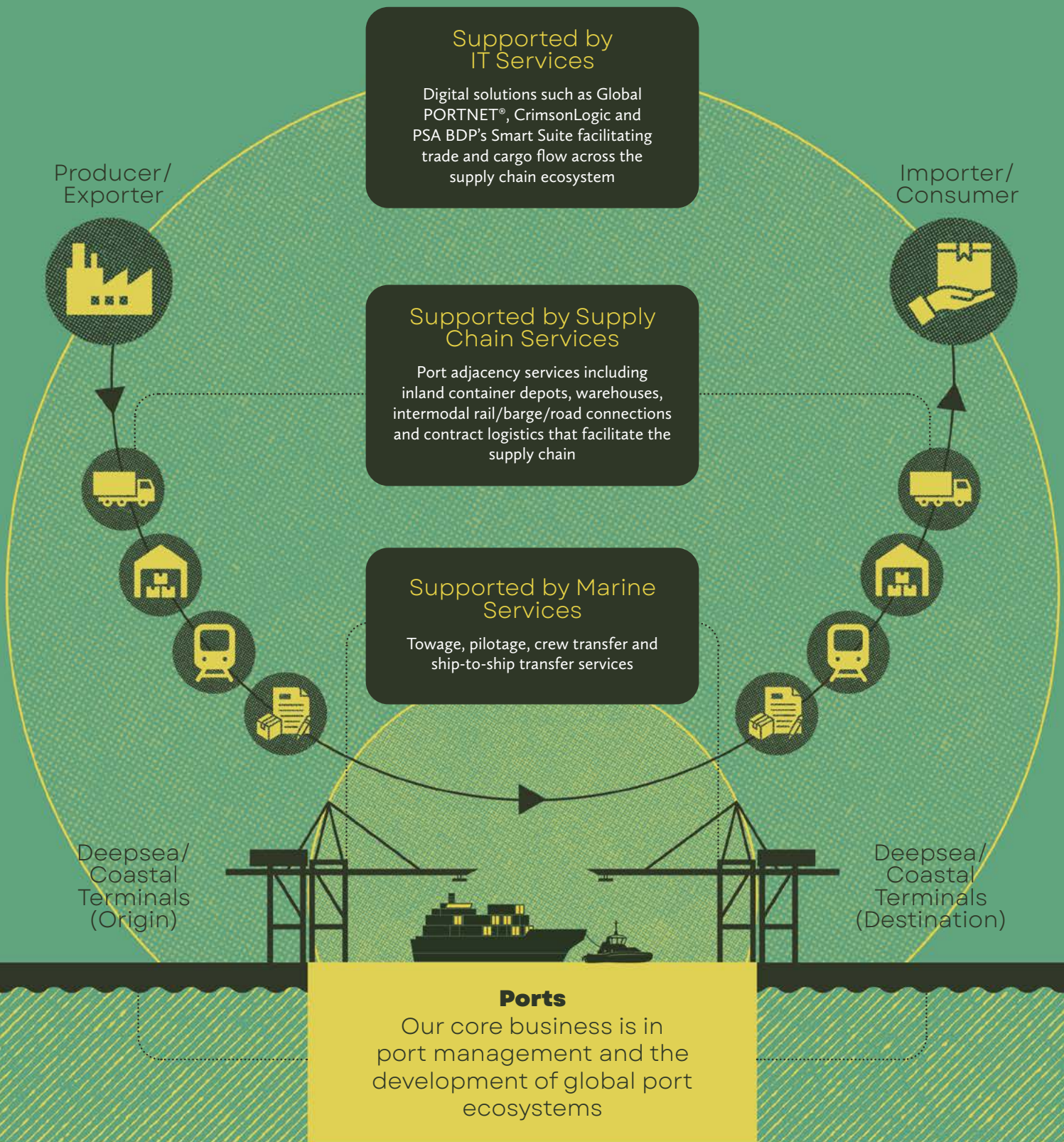
- Southeast Asia
- Middle East South Asia
- Northeast Asia
- Europe & Mediterranean
- Americas

Our Group CEO is supported by a team of senior executives at the Corporate Centre to form the PSA Senior Management Council. Together, the Group CEO and the Senior Management Council steer and oversee the Group's business portfolio, under the guidance of the PSA International Board of Directors.

For more information on our sustainability governance, see [page 14](#) on Our Approach to Sustainability.

PSA: Creating Value Across the Supply Chain

By providing world-class port services and supply chain solutions, PSA enhances value for customers and partners in the global supply chain network. Moving forward, we strive to advance the realm of commerce with greater agility, resilience, and sustainability.





PSA's Key Membership Associations and Advocacy Groups

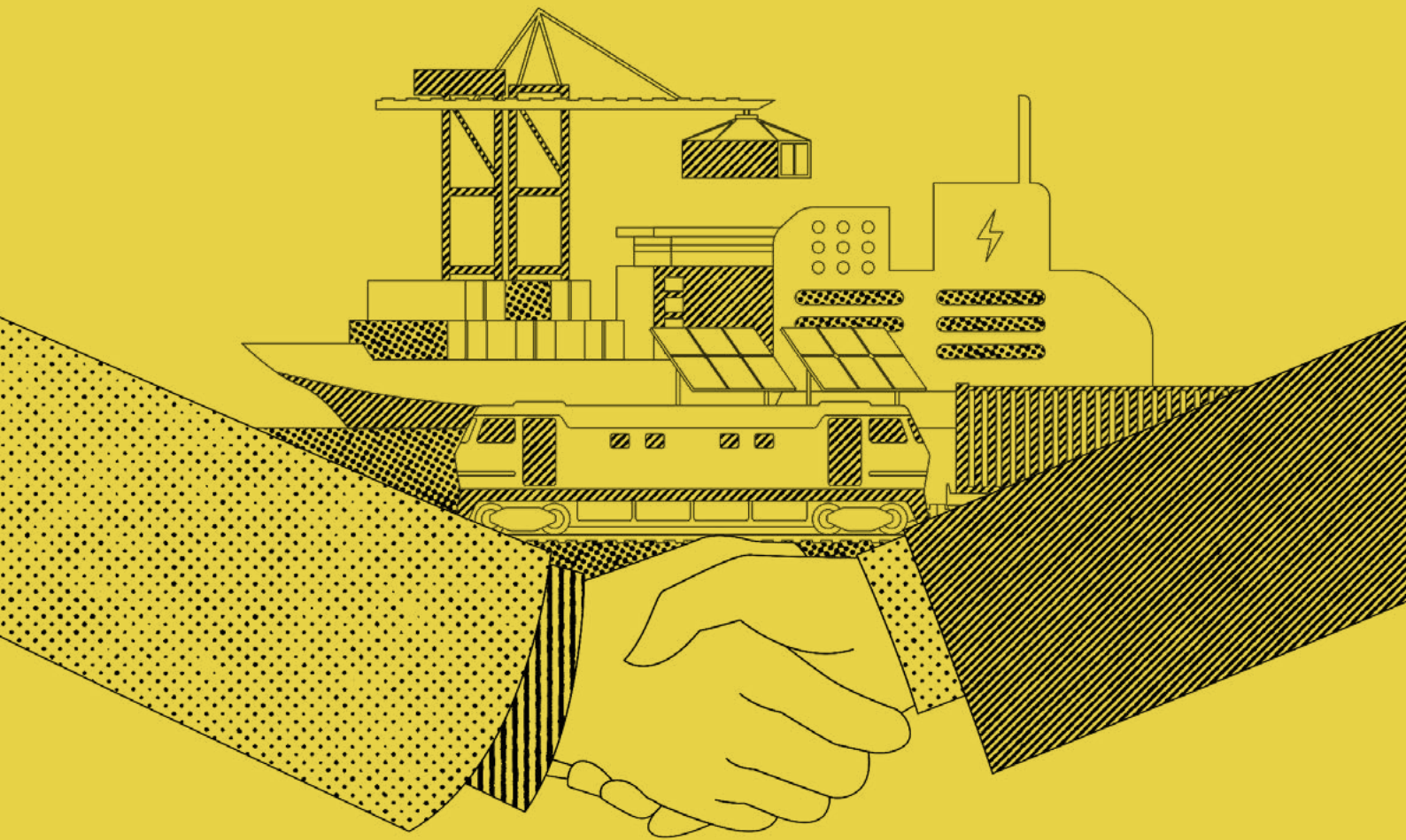
Grounded in our principles, PSA proactively engages and leads collective efforts to bring together key stakeholders in international and industry alliances. This effort is aimed at generating greater momentum for industry action.

PSA participates in external industry associations and initiatives, demonstrating our commitment to upholding best practices in sustainability and industry standards.

ASSOCIATIONS/GROUPS	DETAILS
CALL TO ACTION FOR SHIPPING DECARBONISATION	PSA is a signatory to the Call to Action for Shipping Decarbonisation by the Global Maritime Forum's Getting to Zero Coalition.
CARBON PRICING LEADERSHIP COALITION (CPLC)	CPLC drives momentum for the effective adoption of carbon pricing globally. This coalition comprises 35 national and sub-national governments, 176 private sector organisations spanning various regions and industries, and 102 strategic partners, including non-governmental organisations (NGOs), business associations, and universities.
GLOBAL LOGISTICS EMISSIONS COUNCIL (GLEC)	Partnering with 26 other leading global organisations, PSA joined the GLEC, a consortium led by the Smart Freight Centre and World Business Council for Sustainable Development (WBCSD) to establish actionable guidelines for end-to-end logistics emissions calculations. Published in January 2023, the GLEC guidance enhances companies' abilities to comprehensively monitor their logistics emissions. It emphasises quantifying end-to-end logistics emissions from suppliers to final customers. This guidance complements globally recognised methodologies, such as GLEC Framework 2.0 and WBCSD's Pathfinder Framework. It will also be the primary industry guideline to support the implementation of ISO 14083.

ASSOCIATIONS/GROUPS	DETAILS
GLOBAL MARITIME FORUM	The Global Maritime Forum (GMF) serves as a platform for continuous dialogue and collaborative action, to shape the future of global seaborne trade for sustainable long-term economic development and human wellbeing. PSA is a signatory of GMF's Short-term Action Taskforce on Operational Efficiency, underscoring our commitment towards enhancing operational efficiency for the shipping industry.
GLOBAL SHIPPING BUSINESS NETWORK (GSBN)	PSA, as a founding member and shareholder of GSBN, supports the not-for-profit organisation in operating a secure data exchange platform for supply chain stakeholders. PSA played a key role in launching GSBN's inaugural product, Cargo Release, at multiple terminals in Southeast Asia. This product significantly minimises the time required for cargo to become document-ready for release, reducing the process from days to hours. In 2023, GSBN was awarded "Best in Future of Industry Ecosystems" in the IDC Future Enterprise Awards for Hong Kong.
GREEN AND DIGITAL SHIPPING CORRIDORS	In 2022, PSA International joined the Maritime & Port Authority of Singapore (MPA) and the Port of Rotterdam (POR) Authority as an Action Partner to establish the Singapore-Rotterdam Green and Digital Shipping Corridor to support sustainable shipping. In 2023, PSA Singapore joined Singapore's Ministry of Transport (MOT) and Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) as a port partner to establish the Singapore-Japan Green and Digital Shipping Corridor.
NEW ENERGIES, THE ENERGIES COALITION FOR TRANSPORT AND LOGISTICS	A cross-industry, international alliance with the ambition to accelerate the development of energy and technologies, to sustain new green mobility models and solve sustainability challenges in transport and logistics.
SG TRADE DATA EXCHANGE (SGTraDex)	PSA plays a pivotal role as a founding member of SGTraDex. Developed by the Alliance for Action (AfA) on Supply Chain Digitalisation, SGTraDex is an interoperable data infrastructure aimed at optimising information flow within supply chain ecosystems, bringing together industry and public sector participants. This collaboration focuses on developing innovative use cases and fostering the adoption of a trusted data exchange to improve end-to-end visibility in container logistics flows. In 2023, SGTraDex and PSA, together with industry representatives and trade associations – CargoERP, Innosys, Keyfields, Haulio, CDAS, SLA and STA, reaffirmed their partnership in a Memorandum Of Understanding (MOU) for Digital Collaboration for Logistics Innovation.
THE SILK ALLIANCE	PSA Singapore joined "The Silk Alliance", a cross supply-chain maritime partnership initiated by Lloyd's Register Maritime Decarbonisation Hub and top industry leaders, dedicated to the development of a fleet-specific fuel transition strategy for the intra-Asia container trade, based on the Hub's First Movers Framework.
WORLD ECONOMIC FORUM (WEF)	PSA is an active participant in the WEF's Supply Chain & Transport (SCT) Industry Action Group. Through collective action, the action group aims to address systemic supply chain challenges, fostering sustainable transition to enhance resilience and trust building. Additionally, PSA is a member of the WEF First Mover Coalition's Infrastructure Pillar, underscoring its ongoing commitment to facilitating sustainable trade and contributing to a net zero future. PSA is also a participant in the WEF Stakeholder Capitalism Metrics initiative, joining forces with over 100 companies to establish a globally consistent and comprehensive Environmental, Social and Governance (ESG) reporting standard.

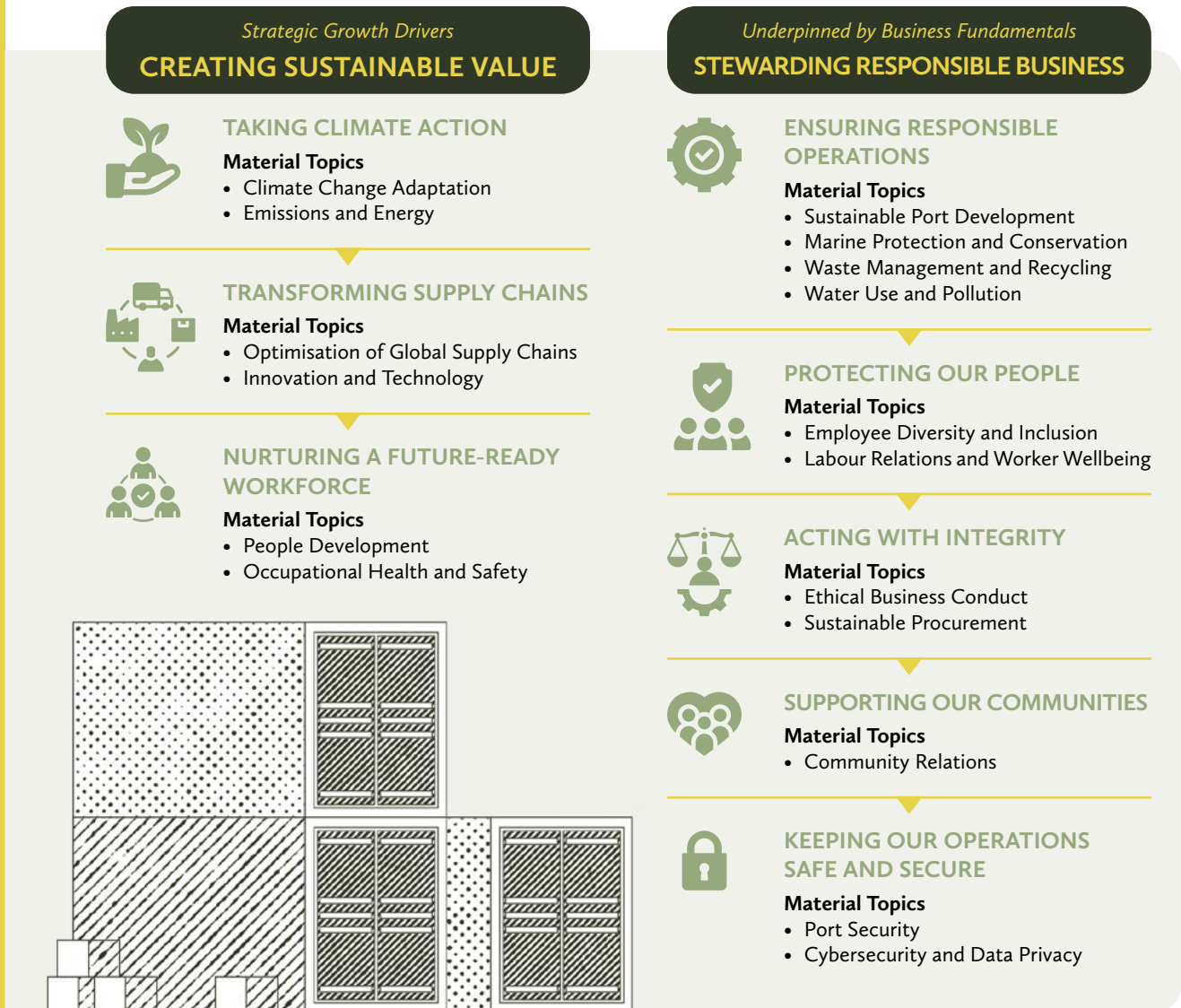
OUR APPROACH TO SUSTAINABILITY



We strive to be the port operator and supply chain partner of choice, driven by our purpose to deliver sustainable value creation. As a responsible corporate citizen, we are committed to reducing our impact on the environment, safeguarding the health and safety of our people, and giving back to the communities in which we operate.

Our Sustainability Strategy Framework

GRI 2-12, 2-13, 2-14, 2-16, 2-17, 2-29, 3-1, 3-2



PSA International's sustainability strategy framework was established to define our sustainability objectives and priorities, serving to guide us in creating sustainable value for our stakeholders and stewarding responsible business.

Our sustainability strategy framework was developed through a comprehensive and methodical process which involved engaging a diverse range of key stakeholders and conducting a materiality assessment to identify PSA's key priorities. Under "Creating Sustainable Value", there are three key focuses to drive strategic growth and positive impact, leveraging our strengths and influence to lead in the industry. Six of our material topics are subsequently mapped to these three focus areas. To ensure that we

continue to make meaningful progress in these areas, we have set targets and commitments to track and manage our performance on the six material topics. For more information, see [Overview of Performance](#).

The strategic growth areas are built upon a strong foundation of business fundamentals, embedding responsible practices and culture across the company. These are covered by 11 of our material topics, ensuring that we manage and minimise risks and negative impacts as we grow the business.

Overview of Performance

Taking Climate Action

Material Topics

- Climate Change Adaptation
- Emissions and Energy

Contributing to:

-  **7**
AFFORDABLE AND CLEAN ENERGY
-  **9**
INDUSTRY, INNOVATION AND INFRASTRUCTURE
-  **11**
SUSTAINABLE CITIES AND COMMUNITIES
-  **12**
RESPONSIBLE CONSUMPTION AND PRODUCTION
-  **13**
CLIMATE ACTION

TARGETS/COMMITMENTS

- Reduce absolute Scope 1 & 2 carbon emissions by 50% by 2030, and by 75% by 2040, against a 2019 baseline year
- Achieve net zero carbon emissions by 2050
- Achieve 90% electrification or hybridisation for all cranes^{*} by 2030
- Implement PSA recommendations for Sustainable Concrete for 80% of new civil infrastructure construction projects[^] by 2030

2023 PROGRESS

- There was a 6% decrease in Scope 1 & 2 emissions in 2023 compared to 2022. This was due to a drop in reefer volumes and dwell, coupled with positive contributions from the deployment of green projects across PSA portfolio
- Reached 77% electrification or hybridisation for all cranes as at end 2023
- Implemented PSA recommendations for Sustainable Concrete for 100% of new civil infrastructure construction projects in 2023

** PSA's previous target only covered Rubber-Tyred Gantry Cranes (RTGs). This target has now been enhanced to include Quay Cranes, Rail Mounted Gantry Cranes, RTGs, Mobile Harbour Cranes and Automated Stacking Cranes.*

^ For projects that are PSA-owned and over SGD 65 million in value. This previous target of 50% implementation by 2023 has been met and is no longer reported.

Transforming Supply Chains

Material Topics

- Innovation and Technology
- Optimisation of Global Supply Chains

Contributing to:

-  **7**
AFFORDABLE AND CLEAN ENERGY
-  **9**
INDUSTRY, INNOVATION AND INFRASTRUCTURE

TARGETS/COMMITMENTS

- Invest at least SGD 100 million by 2025 in research and development and innovation projects, employing the latest available technologies to achieve more efficient and sustainable operations
- By 2024, implement 10 projects that provide sustainable logistics and transport solutions impacting at least 3,000 TEUs of cargo volume per project

2023 PROGRESS

- Invested SGD 150 million as of 2023 in research and development and innovation projects, including automated stacking cranes and electric prime movers
- Provided 6 sustainable logistics and transport solutions to customers, impacting more than 277,000 TEUs in total

Nurturing a Future-Ready Workforce

Material Topics

- Occupational Health and Safety
- People Development

Contributing to:

-  **8**
DECENT WORK AND ECONOMIC GROWTH
-  **9**
INDUSTRY, INNOVATION AND INFRASTRUCTURE

TARGETS/COMMITMENTS

- Aim for zero significant incidents^{*}
- Achieve at least 75% participation rate in the global Employee Opinion Poll (EOP)[^]
- Achieve an average of 16 training hours per employee^{**} annually
- Aim for 80% of senior officers in PSA and its subsidiaries^{^^} to be refreshed on The Code by 2027

2023 PROGRESS

- Recorded 7 significant incidents in 2023
- Achieved 95% participation rate in 2023 EOP
- Achieved an average of 32 training hours per employee
- Achieved 94% of employees refreshed on The Code in 2023

** Refers to safety incidents resulting in fatalities or permanent disabilities.*

^ For business units participating in their second EOP onwards.

*** For 2023, the target covered employees in business units with at least 50% effective interest. From 2024, this will be revised to cover employees in PSA and its subsidiaries.*

^^ PSA's 2023 target covered PSA Corporate Centre, PSAM, PSA SG & PSAA. From 2024, this has been extended to PSA and its subsidiaries.

Materiality Assessment

To identify and prioritise the most significant Environmental, Social, Governance (ESG) and economic issues relevant to PSA, we conducted our first materiality assessment in 2020 with the support of a specialist sustainability consultancy. The materiality assessment consisted of a comprehensive three-step process as illustrated below. To identify key sustainability issues relevant to PSA's context, we conducted desktop research, as well as an extensive internal and external stakeholder engagement exercise, implementing an online survey and conducting one-on-one interviews to gather data and insights. Internal stakeholders included Board Directors, and senior and middle management from across PSA's business units whereas investors, customers, suppliers and regulatory authorities provided external perspectives on PSA's sustainability context. The findings of the exercise were validated and culminated in PSA's list of material topics.

To account for shifts in the sustainability landscape and industry context, a review of PSA's material topics was conducted in 2022. This ensured PSA's understanding and prioritisation of its material topics remained relevant moving forward. The materiality review incorporated the lens of "double materiality" to account for the material topics' potential impact on PSA's financial performance ("financial materiality") and the impact of PSA's activities and operations on the environment and society ("impact materiality"). The review also resulted in the streamlining of 19 material topics down to 17*, which forms the current set of material topics.

**Energy and Emissions were merged to become one topic as they are closely linked. Public Policy was removed as a topic but addressed through the other material topics.*



Our Material Sustainability Topics



TOPICS	DEFINITIONS
 CLIMATE CHANGE ADAPTATION	Strengthening our resilience and management of the physical and transition impacts of climate risks on our infrastructure, operations, surrounding communities and ecosystems, as well as our readiness to leverage opportunities in a low-carbon economy.
 COMMUNITY RELATIONS	Contributing meaningfully to the lives and wellbeing of the communities where we operate, and engaging community stakeholders to address the social and environmental impact of our operations.
 CYBERSECURITY AND DATA PRIVACY	Protecting our business systems and ensuring data privacy through the adoption of robust cybersecurity measures.
 EMPLOYEE DIVERSITY AND INCLUSION	Creating a workplace environment that respects and promotes diversity and inclusion.
 EMISSIONS AND ENERGY	Decarbonising our own operations by reducing carbon emissions through harnessing energy-saving and -efficient technologies, and increasing the generation and use of renewable energy, as well as supporting the decarbonisation of the shipping and logistics industry.

TOPICS	DEFINITIONS
 ETHICAL BUSINESS CONDUCT	Upholding high standards of ethics and regulatory compliance, to go beyond minimum legal requirements, reflecting our long-term commitment to building a business that is successful, honest and responsible.
 INNOVATION AND TECHNOLOGY	Innovating and harnessing technology to drive digitalisation and create more efficient and sustainable operations.
 LABOUR RELATIONS AND WORKER WELLBEING	Maintaining strong relationships and engagement with labour unions, establishing best practice labour standards, including respecting human rights, having zero tolerance of modern slavery and ensuring worker wellbeing.
 MARINE PROTECTION AND CONSERVATION	Protecting marine biodiversity and preventing ocean pollution through responsible management of ongoing port and marine operations, as well as conservation activities.
 OCCUPATIONAL HEALTH AND SAFETY	Ensuring the highest standards of health and safety for workers across our operations.
 OPTIMISATION OF GLOBAL SUPPLY CHAINS	Driving sustainability improvements in global shipping and logistics supply chains by working with suppliers, partners and customers on route optimisation and alternative transport options for better efficiency and safety.
 PEOPLE DEVELOPMENT	Building a future-ready organisation by attracting and retaining an engaged workforce, providing learning and development opportunities, and cultivating a purpose-driven organisational culture that is aligned with our values.
 PORT SECURITY	Ensuring safety and security of port operations, including ensuring responsible handling of dangerous goods, as well as working with relevant authorities and partners to put in place adequate controls to safeguard against terrorism and illicit trade.
 SUSTAINABLE PORT DEVELOPMENT	Ensuring that the planning, design and development of port infrastructure and operations address the environmental impacts from land development and reclamation.
 SUSTAINABLE PROCUREMENT	Minimising environmental impacts and creating positive social impacts through our procurement of goods and services, by integrating sustainability criteria in the selection, monitoring and evaluation of suppliers, including ethical behaviours, environmental protection and upholding human rights.
 WASTE MANAGEMENT AND RECYCLING	Adopting more circular approaches to optimise resource use, minimise the waste generated in our operations and increase recycling.
 WATER USE AND POLLUTION	Ensuring efficient use of water and responsible management of wastewater discharge.

Sustainability Governance

Sustainability Governance Structure



* Our Board of Directors is supported by the following Board Committees: Audit & Risk Committee; Leadership Development & Compensation Committee; and Supervisory Committees.

Our Board's role in overseeing sustainability management

PSA International's Board of Directors assumes overall responsibility for the direction of the company including its sustainability strategy and approach. Board Directors can provide inputs that directly influence the management of sustainability's approach and raise potential areas of concern for PSA's management team to address and prioritise. Our Board of Directors provide oversight in reviewing and endorsing the overall content in this report, including the list of sustainability material topics. They are also involved in providing inputs to our formal materiality assessments.

To support the Board of Directors in keeping their collective sustainability knowledge up to date, PSA's Greenfish Climate Education e-learning program which provides information on global environmental issues and industry-specific sustainability solutions, is made available to them. We also facilitated briefings by external professionals and experts to the Board on topics such as emerging reporting standards and developments on the alternative fuel front.

More information on our Board of Directors' profiles can be found in our [Annual Report 2023](#).

Senior Management Council

Together with the Board, the SMC oversees the company's sustainability strategy. The Group Head of Operations and Sustainability is the SMC member spearheading this role for the Group and he is supported by the Group Sustainability team.

Group Sustainability

At the working level, Group Sustainability is responsible for the development of PSA's sustainability strategy, as well as oversees and coordinates the execution of PSA's Group-wide sustainability initiatives. To ensure integration across the organisation and gather holistic inputs, Group Sustainability works in tandem with other working groups within PSA to drive PSA's sustainability angle, including in the areas of TCFD, Green Finance, IT sustainability and sustainable procurement.

Communication of critical concerns

Group Sustainability provides a quarterly progress report to the Senior Management Council. The Board was updated three times in 2023. At these forums, no critical concerns were raised.

Stakeholder Engagement

Stakeholder engagement is an essential aspect in the development and management of PSA's sustainability strategy. PSA engages stakeholders on a regular basis to understand their needs, concerns, and expectations pertaining to sustainability at PSA. We have identified stakeholders across our activities and business relationships, prioritising groups based on the impact of our business activities on them, as well as their importance to the success of our business.

Our relevant departments and teams communicate and collaborate with stakeholders through established communication channels, formal engagements and other platforms. To ensure meaningful engagement, PSA prioritises transparent communication and where necessary, training materials and communications are translated into local languages.

AUDIENCE	KEY INTERESTS AND TOPICS RAISED	ENGAGEMENT METHOD & FREQUENCY	OUTCOMES
EMPLOYEES 	- Professional skills development - Career advancement and training opportunities - Remuneration and benefits - Fair workplace practices - Occupational safety, health and wellbeing - Workplace inclusivity and diversity	- Learning and development programs - FISH-culture workshops - Performance appraisal (annual) - Employee Opinion Poll (once every three years)	- Suites of programs to address employees' learning and development needs - Co-development of career paths in PSA - Continuous improvements through feedback and reviews
CUSTOMERS 	- Operational agility, efficiency and reliability - Supply chain visibility - Technological and digital solutions - Efficient and green product offerings	- Operations and business meetings - Customer events and seminars - Corporate website* - Annual Report - Sustainability Report	- Understanding of PSA strategic directions and sustainability commitments - Strengthening customer relationship - Delivery of high service level
JOINT VENTURE PARTNERS 	- Strategic partnership - Investment returns - Operational efficiency - Health and safety	- Operations or business meetings - Corporate website* - Annual Report - Sustainability Report	
LABOUR UNIONS 	- Labour rights - Safe working conditions - Skills development	- Union meetings - Corporate website* - Annual Report - Sustainability Report	- Establishment of regular communication channels - Strong tripartism relationship - Skilled workforce

* Corporate Website: www.globalpsa.com

INTERNATIONAL BODIES & INDUSTRY ASSOCIATIONS



- Sustainability and decarbonisation
- Supply chain optimisation
- Technological and digital solutions
- Industry best practices
- PSA executives' representation on boards of various industry bodies
- Multi-stakeholder dialogues at the global, regional and local levels
- External speaking engagements at industry forums
- Long-standing partnerships with partners, customers and industry bodies
- Joint efforts and collaborations to drive industry development and sustainable practices
- Strong partnerships that co-create and advance solutions to solve global and industry-wide sustainability and decarbonisation challenges

INVESTORS



- Business outlook
- Financial performance
- Corporate governance
- Sustainability policies and practices
- Investor meetings
- Corporate website*
- Annual Report
- Sustainability Report
- Build trust and confidence in the business and our corporate governance
- Better understanding of strategic direction and sustainability commitments

SUPPLIERS



- Technology development
- Health and safety
- Sustainability dialogue
- Operations meetings
- Safety trainings/ inductions
- Corporate website*
- Annual Report
- Sustainability Report
- ESG survey with top suppliers
- Regular two-way communication to address any operational or business issues and build strong relationships at multiple levels within the organisation
- Awareness of policies and procedures at PSA

GOVERNMENT/ PORT AUTHORITIES



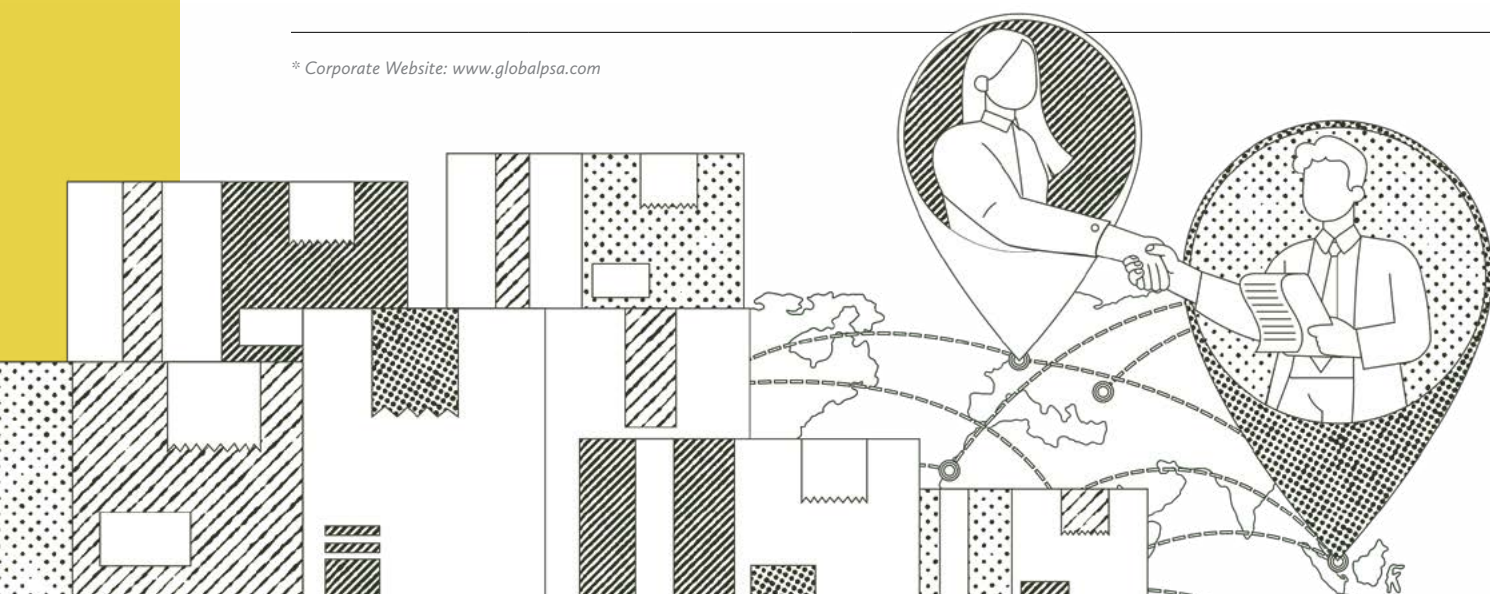
- Regulatory compliance
- Industry development
- Digitalisation
- Sustainable operations
- Regular meetings and forums
- Corporate website*
- Annual Report
- Sustainability Report
- Collaboration on industry development initiatives such as digitalisation or talent development
- Better understanding of strategic directions and sustainability commitments

COMMUNITIES



- Environmental and social responsibility
- Community development or CSR programs
- Corporate website*
- Annual Report
- Sustainability Report
- Continued community engagement efforts
- Terminal visits
- Creation of positive impact in the communities where we operate

* Corporate Website: www.globalpsa.com



ENVIRONMENT



IN THIS SECTION

Taking Climate Action

Climate Change
Adaptation

Emissions and Energy

Ensuring Responsible Operations

Marine Protection
and Conservation

Waste Management
and Recycling

Water Use and
Pollution

Taking Climate Action

CLIMATE CHANGE ADAPTATION

GRI 3-3

As climate change effects grow increasingly visible, PSA is committed to safeguarding and building the resilience of our assets to ensure the continuity of uninterrupted operations and service to our customers.

Why It Is Important

Acute and chronic weather events have significant ramifications on global supply chain operations. Infrastructure damage to ports, warehousing and distribution centres caused by storms and rising sea level can lead to business interruptions through facility closures and the need for repairs while transportation routes can be hindered through floods and droughts leading to the delayed shipment and delivery of cargo and essential goods.

At PSA, we recognise the potential negative impact of climate-related disruptions to port services leading to delays in the delivery and processing of cargo, including the delivery of essential goods and products. Such hold-ups could cause negative impact downstream on our business partners, consumers, and the livelihoods of communities and individuals in the regions where we operate.

As a responsible corporate citizen, we strive to minimise these impacts and ensure consistent and reliable service for our partners and customers. Through investing in climate-related mitigation and adaptation measures, we seek to create positive impacts that contribute to operational resilience and excellence.

Our Approach

PSA has developed a comprehensive approach, aligned with best practices based on recommendations from the Taskforce on Climate-related Financial Disclosures (TCFD).

Incorporating the TCFD recommendations, we aim to manage and adapt to climate change risks by systematically identifying and assessing risks that are material to PSA as an organisation. We develop adaptation plans and implement necessary measures to safeguard the resilience of PSA's operations and business.



Governance

To address climate change as a priority, PSA has established a robust sustainability governance structure (see [Sustainability Governance Structure](#)) to ensure appropriate oversight in the strategy and management of climate-related risks and its potential financial implications. Members across Corporate Centre functions work closely to ensure that PSA's sustainability strategy aligns with the overall business goals and delivers on PSA's set sustainability targets and commitments.



Board Oversight

The Board of Directors oversees and steers sustainability strategy in alignment with business strategy, setting its strategic vision and priorities including sustainability and climate-related considerations. The Board receives sustainability updates and provides direction for PSA's sustainability strategy and decarbonisation pathways and initiatives at least twice a year.

PSA's overarching Audit & Risk Committee supervises PSA Group's risks, including sustainability-related risks. The Audit & Risk Committee meets three times a year or as frequently as needed, to review the effectiveness and adequacy of risk management processes and procedures.

PSA's Greenfish Climate Education e-learning program, which provides information on global environmental issues and industry-specific sustainability solutions, are available to the Board of Directors. External experts are invited periodically to share information and ensure that the Board members remain up to date on all sustainability matters and enhance their climate competencies.



Management Structure

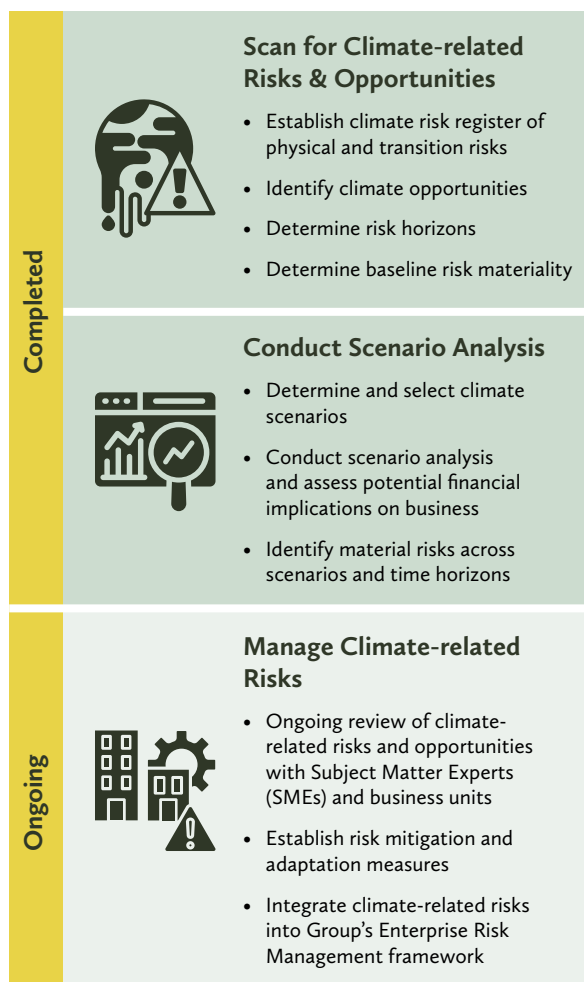
The execution of PSA's sustainability strategy is delegated to PSA's Senior Management Council (SMC), with the Group Head of Operations and Sustainability spearheading this role. The SMC is responsible for approval of all Group-level sustainability targets as well as climate-related initiatives and efforts across all areas including focus areas identification, standards alignment, performance and targets review, resources, and budget allocation for managing climate-related risks and tackling our carbon emissions. The SMC also designs, implements, and monitors risk management and internal control systems for the Group. The SMC is supported by the Group Sustainability team and Group Risk Management (GRM) on climate and risk management issues respectively.

The Group Sustainability team leads the implementation of PSA's climate initiatives – providing relevant updates and tabling recommendations for SMC's approval during regular quarterly meetings and as required. The Group Risk Management (GRM) function develops, implements, maintains the Group's Enterprise Risk Management (ERM) framework, policy, strategy and practices to effectively manage the Group's risks, and monitors key risk indicators. In collaboration with GRM, business units and Corporate Centre functions are in charge of their own sustainability risk management processes to establish controls and treatment plans for risks identified and to channel their inputs to the Group's consolidated organisational risk register.

SMC members assume oversight of the risks associated with the corporate functions under their charge while the Group's overall risk management strategy and processes are reviewed by the SMC at least once a year.

Across the entire organisation, mechanisms are in place to track sustainability key performance indicators, which factor into performance management and appraisal processes, and are linked to annual performance-related remuneration.

Climate-related Risks Assessment and Scenario Analysis Methodology



Strategy

To ensure resilience and the operational continuity of PSA's services, the management of potential climate-related risk is a key component of PSA's sustainability strategy. We manage these risks through a robust three-step process aligned with the TCFD recommendations. The process seeks to identify and prioritise material risks, followed by the application of climate change scenario analysis to assess resilience in a range of plausible futures and establish appropriate mitigation and adaptation plans and measures.

In 2021, PSA conducted an initial high-level assessment to understand the exposure of PSA's assets to seven climate-related physical risks: tropical cyclone, flood, sea level rise, wildfire, drought, heat stress, and precipitation stress. Following the initial exercise, PSA has progressed towards conducting climate change scenario analysis for both physical and transition risks and opportunities to assess and project the potential implications of climate-related risks on our current operations and across future timeframes.

Aligned with the emissions reduction pathways necessary to reach PSA's declared net zero emissions target and international best practices, PSA's modelling takes into account two scenarios referencing the Shared Socioeconomic Pathways (SSP) and Representative Concentration Pathways (RCP) scenarios based on the Intergovernmental Panel on Climate Change's (IPCC) 6th Assessment Report. The scenario pathways factor in how risks will potentially evolve in future due to a variation in factors such as temperature change, extreme weather conditions, population growth, international trade, climate action, advancements in, and adoption of climate technology.

Selected Climate Scenarios*

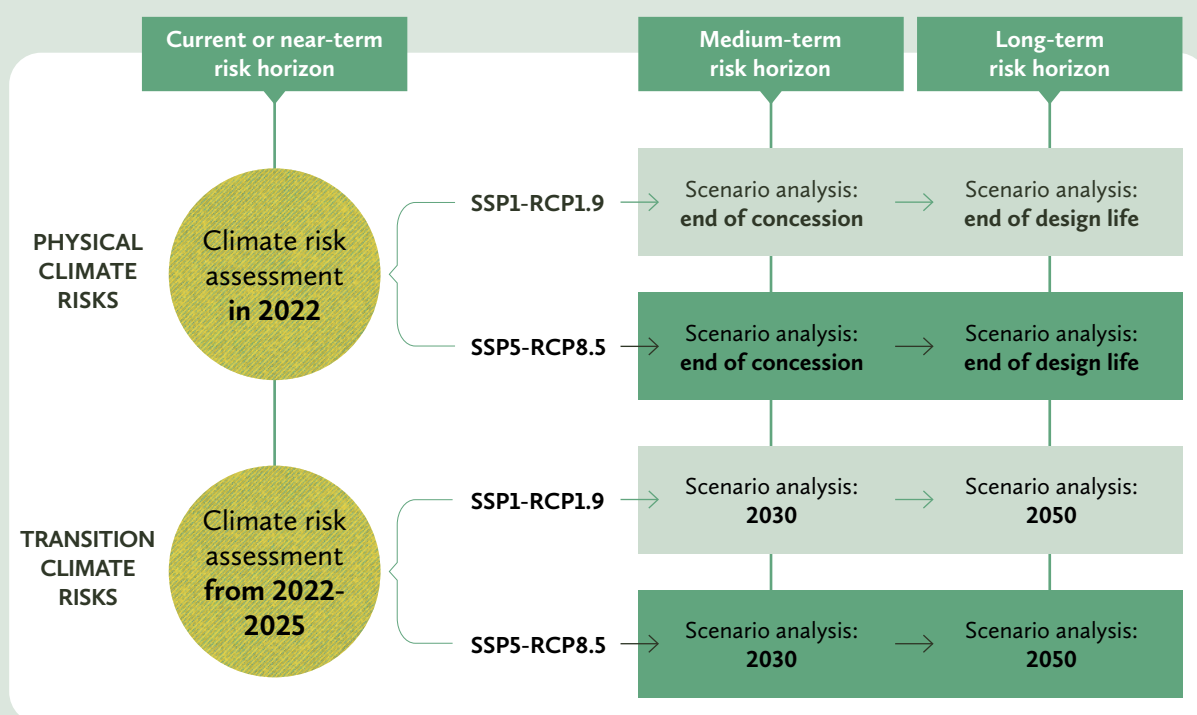
	SUSTAINABLE DEVELOPMENT (SSP1-RCPI.9)	FOSSIL-FUELLED DEVELOPMENT (SSP5-RCP8.5)
 Climate Ambition (by 2100)	- Net zero by 2050 1.5°C	- Net zero not reached 4.5°C
 Extreme Weather Conditions	Less frequent and managed	Highly increased occurrence
 Migration and Urbanisation	Medium levels and well-managed	High levels
 International Trade	- Shifts toward green consumerism - Slowdown in trade growth and shipping	Accelerated globalised trade, material consumption, and international shipping
 Climate Action	Stringent climate policies and introduction of carbon tax	Minimal or no climate policies
 Climate Technology	Global shift towards renewable energy and use of alternative fuels such as hydrogen and biomass	- Focus on climate adaptation with no reductions in carbon-intensity - Slow development and adoption of renewables

*Narratives for the climate scenarios put together by the climate research community.
Sources: O'Neill et al. (2013), Riahi et al. (2016), Carbon Brief (2018)

PSA's assessment includes data and projections based on announced national regulations and policies and energy price projections from international organisations, while aligning PSA's growth to global trade growth projections. The assessment also assumes that PSA will continue to decarbonise our operations in line with our net zero 2050 target, regardless of the potential climate scenario.

Across the two scenarios, risks were assessed in three risk horizons: baseline, medium-term and long-term. These time horizons were selected based on the nature of PSA's assets, carbon emissions reduction targets and the availability of climate science data. Medium-term has been defined to be 2030 for transition risks and end of port concession for physical assets; and long-term, defined to be 2050 for transition risks and end of design life for physical assets.

Selected Time Horizons



To build a comprehensive climate risk register, PSA relied on TCFD references, industry peer comparisons as well as our Operations Centre of Excellence. We have identified and assessed close to 20 transition risks.

The physical and transition risks were assessed against the Risk Assessment Matrix (RAM) in the Group's ERM Framework. The RAM is a 5-by-6 matrix for which the impacts on the environment, people, reputation and the organisation's finances are considered. The risks were scored considering two key factors:

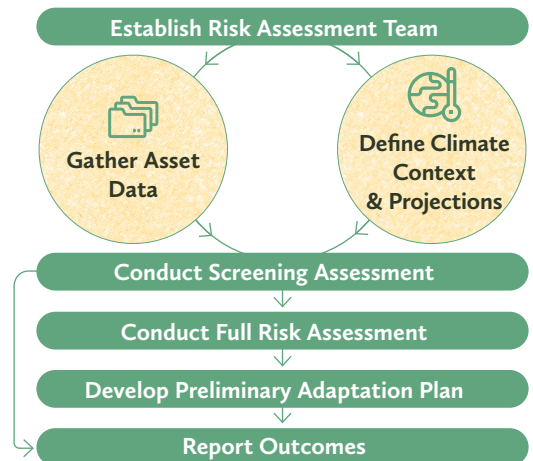
- Consequence, factoring the potential financial impact of the risk
- Likelihood, accounting for the probability of the risk occurring

Across both physical and transition climate risks, risks falling into an identified area in the RAM at baseline or over time, are deemed as material risks. Material risks are prioritised by business units to be addressed further through mitigation and adaptation plans and initiatives as necessary.

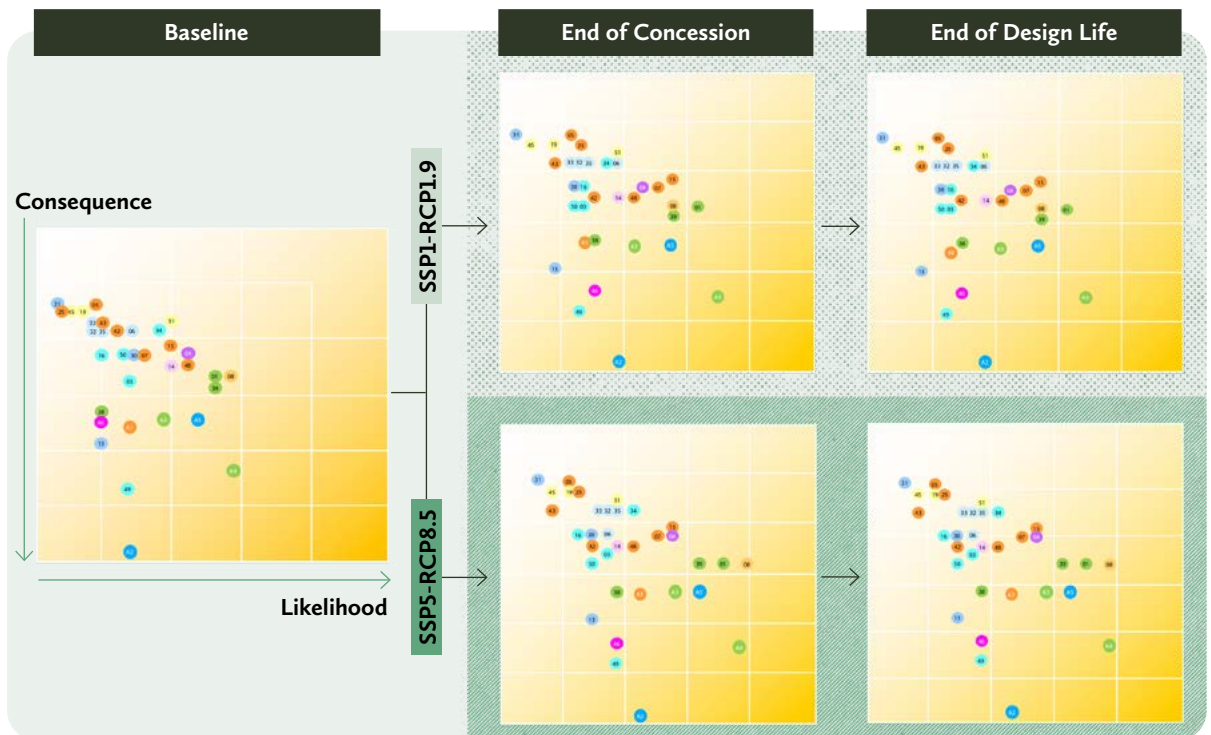
Climate Risk Assessment and Adaptation (CRAA) Process

PSA's comprehensive Climate Risk Assessment and Adaptation (CRAA) Framework and guidelines were developed to systematically assess climate-related physical risks at an individual asset level to inform potential financial impacts and assess if further measures are necessary to improve resilience of PSA's assets.

The Group Civil team conducts the CRAA workshops based on climate change projections and past extreme events which had occurred at the terminal or region. As part of the CRAA process, business units will develop adaptation plans after completing the assessment. The Group Civil team then tracks the progress of the adaptation plans with the business unit on a regular basis.



Physical Climate Risks Analysis



- Increased extreme temperatures: damage to critical infrastructure and systems
- Increased extreme temperatures: impacts on working conditions
- Increased storms, extreme winds: adversely impacts operations/operational safety
- Increased storm events, storm surges: damage to equipment and infrastructure
- Increased storm events, sea level rise, storm surges: damage to critical third-party infrastructure
- Increased sea levels, rainfall, storm surges: flooding in the terminal
- Increased rainfall events: flooding in the terminal
- Decreased annual precipitation: drought and possible operations disruption
- Increased waves: restricts navigational access
- Increased wave action: damage to marine structures
- Increased fog: restricts navigational access

CRAA exercises have been conducted for PSA's flagship terminals in Singapore and Antwerp. Extreme heat, extreme winds and storms are the three key drivers of the material physical risks, for which the potential impacts to PSA's business include increased power demands from extreme heat events, potential damages to equipment, containers and buildings and operational delays in the events of extreme wind and storm. We assessed that the likelihood of weather disruptions is greater in the fossil-fuelled development scenario as compared to the sustainable development scenario. The current measures in place to manage weather-related impact are asset-specific and include among other things factoring in extreme weather conditions in the design of equipment and buildings and putting in place preparedness plans to minimise operational disruptions. To ensure continual risk management, as part of the CRAA process, business units are required to develop adaptation plans should there be risks identified for treatment. This involves engaging relevant internal and external experts, budgeting and executing adaptation plans for identified risks.

Transition Risks and Opportunities Assessment

In addition to physical risks, there are potential risks and opportunities presented by the changing economic, social and environmental landscapes associated with climate change. This can encompass factors such as regulatory changes, disruptive technologies, shifts in consumer behaviour and

other climate-related impacts, affecting PSA financially and operationally. By understanding both transition risks and opportunities, PSA is better informed in decision-making to anticipate these changes, mitigate against risks and leverage opportunities effectively.



Market (Transition)

- M1** Shifting consumer demand patterns
- M2** Increased labor uncertainty and lower productivity
- M3** Increased financing costs
- M4** Increased energy costs (premium) from low-carbon transition
- M5** Increased commodity (steel, concrete) supply uncertainty and cost
- M6** Shifting energy and bunkering hubs
- M7** Shifting trade routes due to physical climate change (Arctic ice)
- M8** Shifting trade routes due to physical climate change (Panama canal)
- M9** Changing freight content/Increasing shipments of EVs with batteries

Technology (Transition)

- T1** Increased low-carbon technology and equipment supply uncertainty and cost
- T2** Suboptimisation of assets due to adoption of low-carbon technologies

Reputation (Transition)

- R1** Increased costs from negative reputation around climate action amongst stakeholders
- R2** Increased costs from PR crisis management around negative climate incidents

Policy/Legal (Transition)

- P1** Increased costs to adhere to alternative fuel regulations
- P2** Increased policy costs from Scope 3 disclosure standards
- P3** Increased costs of energy infrastructure due to low-carbon regulations
- P4** Increased costs of carbon tax, cap or ETS
- P5** Increased costs from litigation over climate violations by regulators and customers

The study identified seven material climate-related transition risks, driven by market and policy factors. Market-wide pivot to fulfill green consumerism and emerging markets in the global supply chain such as the Electric Vehicle (EV) market, could result in shifts to trade patterns and needs, and potentially impact PSA's business. The abovementioned impacts are assessed to be greater in the sustainable development scenario as the shifts to greener consumer trends are on an uptick, as compared to fossil-fuelled development scenario. In addition, with PSA's direct reliance on labour, purchased energy and commodities, rising cost premiums could lead to heightened operating costs for PSA. The impacts are greater in the fossil-fueled

development scenario as increasing temperatures, severity and frequency of weather events are expected to disrupt resource provisions and supply chains to a greater extent.

On the regulatory front, climate-related laws and policies could impose increased compliance costs. Existing control measures in place include constant tracking of emerging regulations globally to ensure adequate preparations are made to adhere to new policies. We are also committed to decarbonising both our operations and that of our supply chain, and continue to grow our Node to Network capabilities and end-to-end low-carbon transport offerings to meet the increasing expectations of our customers. Steps will be taken to deepen our analysis of climate-related risks with the relevant Subject Matter Experts and business units, alongside the integration of the material risks into the Group-wide ERM framework.



In addition, we are studying climate-related opportunities in the areas of commercial, operations, civil infrastructure, equipment and technology. These opportunities include:



Adoption of energy efficient measures for buildings, resulting in efficiency gains, reduced energy usage and cost savings



Development of rail and barge services to bring about operational diversification and gains



Development of low-carbon service offerings to customers will lead to revenue gains as consumers and partners seek solutions to decarbonise their operations and supply chains



Implementation of low-carbon technologies such as electrification of equipment throughout PSA's portfolio will lead to energy efficiency and operational cost savings

Risk Management

PSA's robust approach to risk management is an integral part of our climate response strategy which seeks to maintain high operational resiliency. By identifying and assessing risks, PSA is able to develop a host of measures to mitigate against these risks and protect our assets.

Our existing ERM framework guides our overall approach to evaluating and managing PSA's exposure to risks. Sustainability-related risks under the ERM framework include governance, cybersecurity, health, safety, security and environment risks.

Corporate Centre functions and business units are delegated with the responsibility to develop and maintain a risk register to document all material risks for consolidation towards the organisational risk register. As part of ERM integration, key climate-related risks will be identified and subjected to a review on a biannual basis, to consistently identify, quantify and assess the controls for implementation in our strategic planning process. A Risk Assessment Matrix (RAM) is used to assess impacts based on likelihood and consequences on people, reputation, environment and financial value, which culminates in an overall risk materiality. Depending on the RAM score (likelihood x consequence), the necessary further measures are determined. The Audit and Risk Committee is promptly updated on emerging risks and significant trends through Group Risk Management.

Across our operations, we continue to implement key adaptation measures (following the risk philosophies of avoid, mitigate, transfer, and accept) to manage our exposure to climate-related risks. We future-proof and increase the resilience of our infrastructure, to ensure the continuity of our operations, on top of existing controls against climate-related risks, that are already embedded within the business.

Metrics and Targets

Aligned with the reductions required to limit the global temperature increase to 1.5°C compared to pre-industrial levels, PSA has set the target to achieve net zero carbon emissions by 2050. We have also set interim targets in Scope 1 and 2 to guide and track our progress.

Our climate-related targets include:

- Reducing absolute Scope 1 and 2 carbon emissions by 50% by 2030 and 75% by 2040 against a 2019 baseline year.
- In 2024, we enhanced our initial target of converting 90% of our Rubber Tyred Gantry Cranes (RTG) to electric or hybrid models by 2030 to encompass all cranes, including Quay Cranes (QC), Rail Mounted Gantry Cranes (RMG), Mobile Harbour Cranes (MHC) and Automated Stacking Cranes (ASC). As of 2023, we have achieved 77%, which is more than halfway to our goal.
- Investing at least SGD 100 million by 2025 in research and development and innovation projects, employing the latest available technologies to achieve more efficient and sustainable operations. As of end 2023, we have invested SGD 150 million.

PSA discloses our progress against our targets in our annual sustainability report including Scope 1, 2 and all relevant Scope 3 emissions. In addition, PSA also tracks other climate-related indicators including emissions intensity, energy consumption, renewable energy purchases, emissions profile per region, emissions profile per sector and fuel and electricity usage per equipment move.

To ensure we remain on track and accountable, Group Sustainability is also required to report PSA's carbon emissions to the Board and SMC at least twice a year, and all business units are required to submit Energy Transition Plans. All emissions data from business units are also required to undergo third-party verification against the ISO 14064-1:2018 verification standards. Currently, close to 90% of PSA's total Scope 1 & 2 emissions have undergone verification by an independent verifier against the ISO 14064-1 at least once in the last three years.

Beyond climate-related targets, PSA actively manages and monitors all sustainability-related risks and opportunities linked to PSA's identified material sustainability topics.

For more information on climate-related metrics and targets please refer to [page 31](#).

EMISSIONS AND ENERGY

GRI 3-3, 302-1, 305-1, 305-2, 305-3

PSA recognises the urgent need to tackle the ongoing climate crisis through swift and decisive climate action. As a global industry leader, we lead the way by solidifying our commitment to net zero aligned with the Paris Agreement and through the implementation of concrete decarbonisation initiatives to ensure a sustainable transition.

Why It Is Important

To limit global warming and mitigate the potential effects of climate change, it is of vital importance for the ports and logistics sector to take urgent climate action aligned with achieving international climate goals.

At PSA, we are actively identifying and managing our emissions and energy consumption which are the key activities leading to the impact. Impacts arise from our direct business activities (Scope 1 and 2 emissions from the use of energy in our business operations and facilities through container terminals, marine services, logistics and IT services) and through our business relationships and value chain (Scope 3 emissions).

Taking an approach of collaboration within the logistics and transport sector, with a focus on fostering and incorporating innovation to reduce our reliance on fossil fuels, we aim to continue contributing to creating a resilient supply chain that reduces vulnerabilities to potential disruptions caused by climate change.

Our Approach

At PSA, the Group Sustainability team oversees and organises sustainability efforts and initiatives in alignment with PSA's decarbonisation strategy. Decarbonisation initiatives are implemented and rolled out across the Group in accordance with PSA's Carbon Abatement Pathways, supporting PSA in reaching its net zero target by 2050 which is line with the Paris Agreement goal to limit global warming to 1.5°C. Interim targets have also been set to reduce absolute Scope 1 and 2 emissions by 50% by 2030, and 75% by 2040 against a 2019 baseline.

The Climate Response Management System (CRMS) was established to focus our climate initiatives on five key pillars:

- Leadership & Strategy
- Planning & Implementation
- Monitoring & Reporting
- Education
- Communications

The CRMS is supported by standards and frameworks which guide business units on the management of sustainability projects. Supporting standards include the Renewable Energy Procurement & Generation Framework (RE-ProGen) which guides business units on renewable energy procurement and generation approach; the Sustainable Concrete requirements; the Sustainable Procurement Framework to uphold ESG commitments in procurement decisions; and electric prime mover (ePM) guidance documents to provide guidance on ePM deployment strategies. Additionally, regional training workshops are held for business units to support them in complying and implementing the key pillars of the CRMS, assisting business units in furthering their decarbonisation approach.

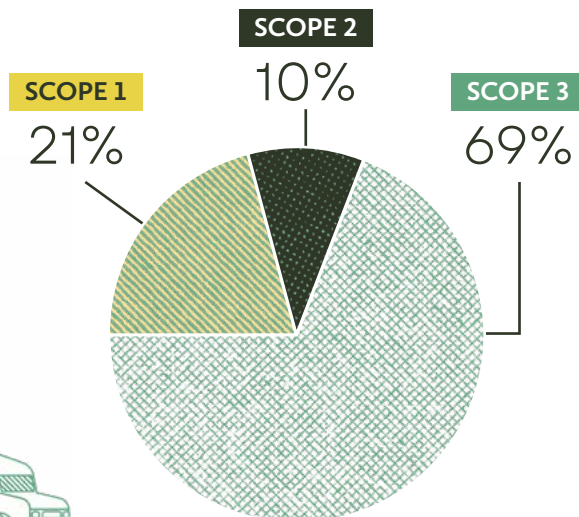
PSA takes a comprehensive view which incorporates green financial considerations in our management approach. This is because carbon reduction initiatives often require significant investments in technology, infrastructure, equipment and process improvements. PSA has leveraged tools such as the Marginal Abatement Cost Curve (MACC) to evaluate and prioritise the most effective carbon abatement options. Progressively, we have also integrated carbon emissions considerations within the annual budgeting processes to ensure business units allocate sufficient capital to facilitate projects and initiatives towards decarbonisation. Business units are required to allocate a budget for a lower-carbon equipment option - for example, an electric or LNG prime mover instead of a diesel-operated one, unless there is a compelling justification. In 2023, PSA also launched a Green Finance Framework to better position our corporate entities tapping the green loan and bond markets. The framework guides our entities in financing or refinancing of new or existing green assets or projects, promoting environmental progress.

To monitor the progress of our climate initiatives, Group Sustainability has implemented tracking mechanisms to assess the effectiveness of initiatives and impacts to overall emissions targets. PSA taps on an expert software solutions provider to standardise the collection and calculation of emissions data for business units around the world. With strong data analytics leading to greater visibility over our carbon footprint, this facilitates meaningful benchmarking and continuous improvements.

Our Carbon Emissions in 2023

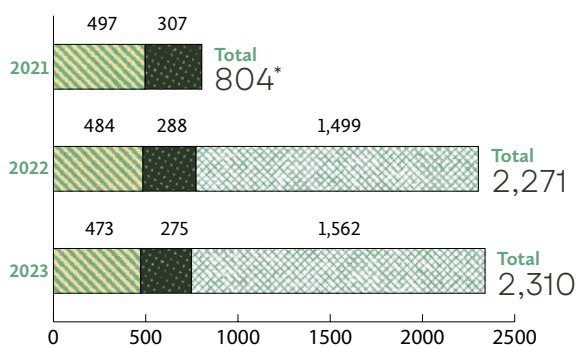
In accordance with the Greenhouse Gas (GHG) Protocol, PSA discloses our entire carbon footprint encompassing Scope 1 and 2 emissions, as well as Scope 3 emissions deemed relevant using the equity share approach.

Breakdown of Carbon Emissions in 2023

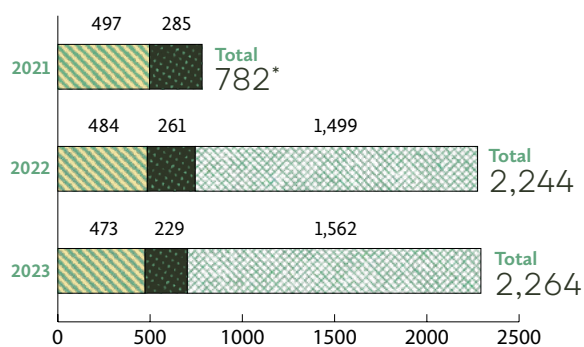


Total Carbon Emissions for the PSA Group

Scope 1, 2, 3 Carbon Emissions (kTCO₂e), Location-based



Scope 1, 2, 3 Carbon Emissions (kTCO₂e), Market-based



Notes: Carbon emissions in the above table are computed based on an equity share consolidation approach. Greenhouse gases included in the calculation are CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃. Emissions factors for Scope 1 emissions were sourced from GHG Protocol Emissions Factors for Cross Sector Tools (March 2017) and the UK Department for Environment, Food and Rural Affairs (DEFRA).

Emissions factors for Scope 2 emissions were sourced from the International Energy Association (IEA) and Association of Issuing Bodies (AIB). Emission factors for Scope 3 emissions were sourced from GHG Protocol and DEFRA. Global warming potential of gases were obtained from IPCC's fifth assessment report (AR5).

The Scope 3 emissions figure for 2022 has been restated after a refinement to the emissions calculation methodology for Scope 3 Category 3 and 5 emissions.

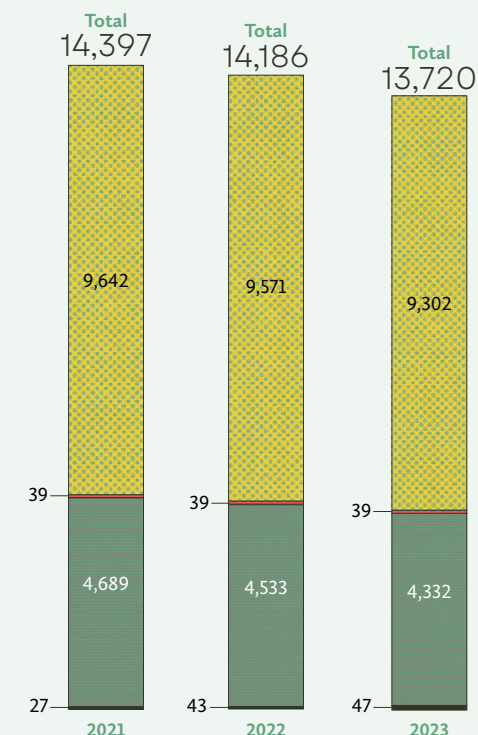
* PSA started accounting for its Scope 3 emissions from 2022.

Scope 1 and 2 Emissions

In 2023, PSA's Scope 1 and 2 carbon emissions was 702 kTCO₂e in total. This represents a 6% decrease from 2022's levels. This was due to the deployment of green projects across PSA portfolio, as well as lower energy consumption from reefer volume and lesser container dwell days. Against our baseline year of 2019, PSA's Scope 1 and 2 emissions has reduced by 7%.

Energy Consumption

Total Energy Consumption of the PSA Group



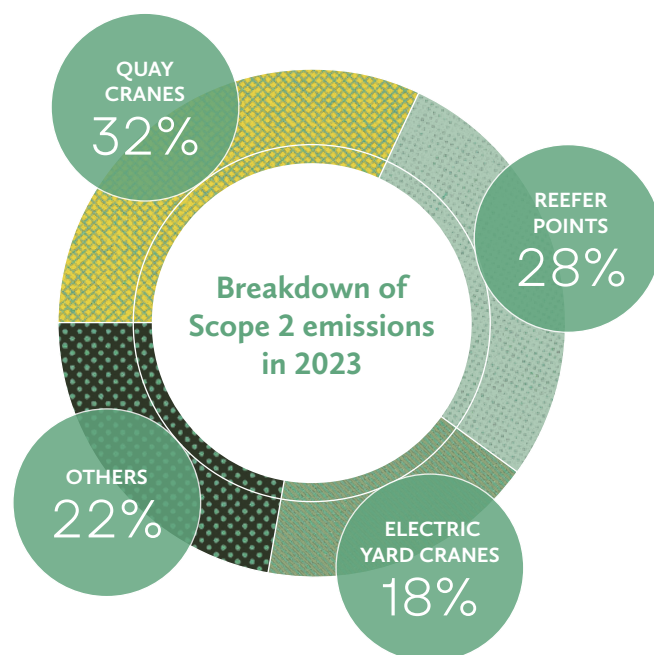
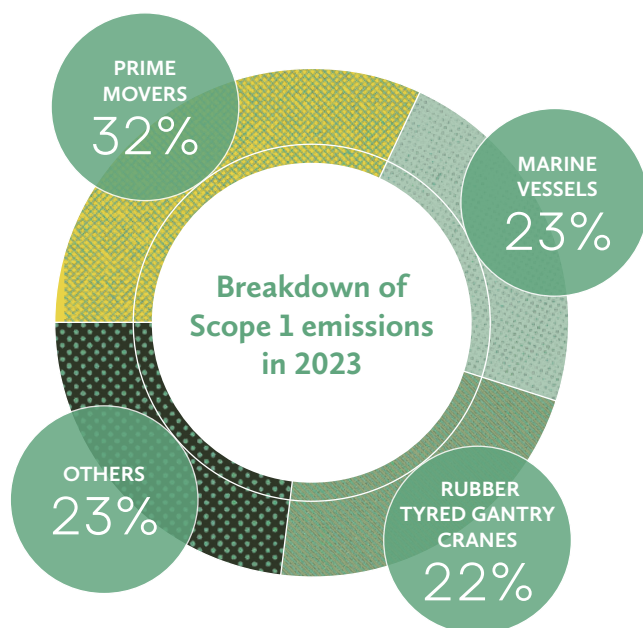
- FUEL CONSUMPTION FROM NON-RENEWABLE SOURCES (TJ)
- FUEL CONSUMPTION FROM RENEWABLE SOURCES (TJ)
- PURCHASED ELECTRICITY (TJ)
- SELF-GENERATED ELECTRICITY (TJ)

Notes: Non-renewable fuel types include diesel, LNG, petrol, CNG and LPG. Renewable fuel types include hydrogen and biofuels. Conversion factors were obtained from GHG Protocol Emissions Factors for Cross Sector Tools (March 2017) and DEFRA 2023.

Self-generated electricity refers to electricity generated from onsite Photovoltaic (PV) systems and consumed by the organisation. There was no heating, cooling, or steam purchased for self-owned assets. There was also no electricity, heating, cooling or steam sold.

Energy consumption figures in the above table are based on 100% and are not adjusted for equity share. The total energy consumption figures for 2021 and 2022 have been restated due to inclusion of self-generated electricity.

As PSA's largest core business, operations at container terminals form the bulk of PSA's Scope 1 and 2 emissions, accounting for 83% due to the operation of heavy equipment. In terms of emissions intensity, our containers terminals reported 9.7 kgCO₂e/TEU in 2023, a decrease of 13% from 2022's figures. Our marine services accounted for 14% of our Scope 1 and 2 emissions, with the remaining emissions arising from PSA's operations in the non-container terminals, logistics services and IT businesses. The top three emissions sources for Scope 1 emissions included prime movers, marine vessels and rubber tyred gantry cranes. For Scope 2 emissions, the top three emissions sources included reefer points, quay cranes, and electric yard cranes.



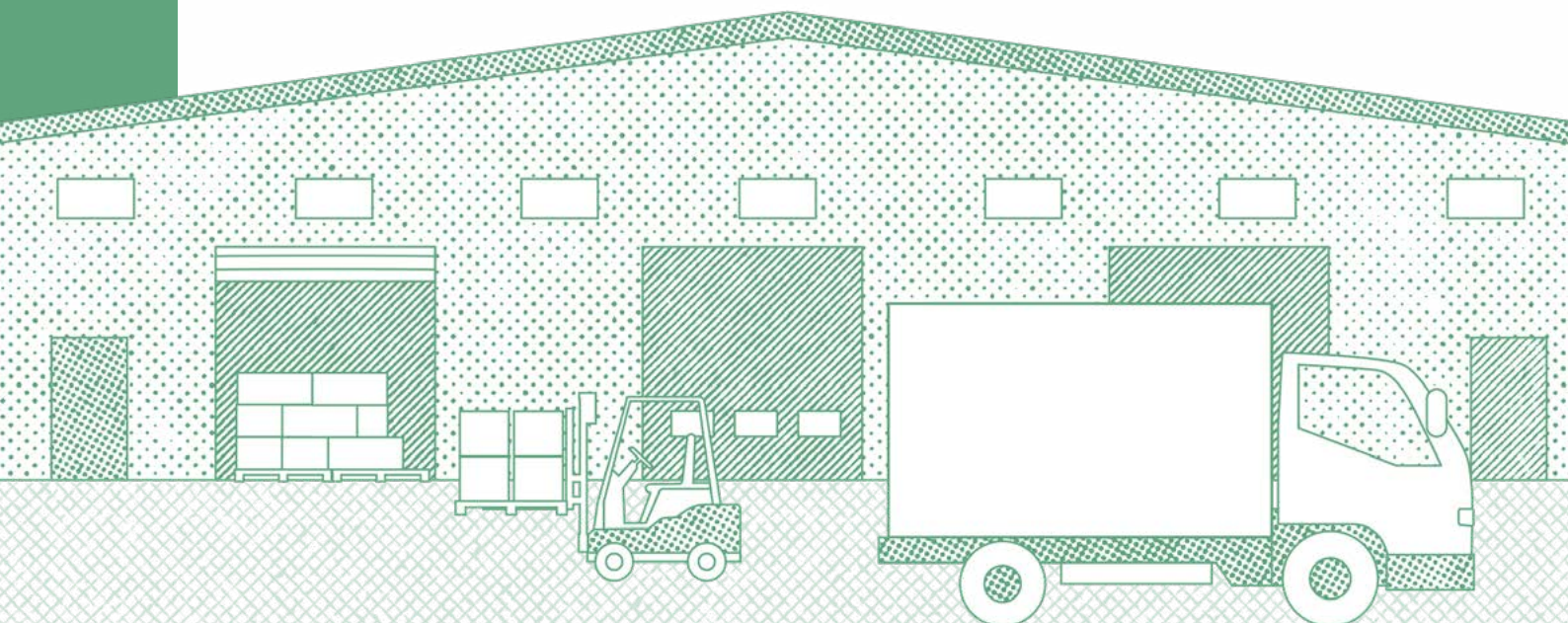
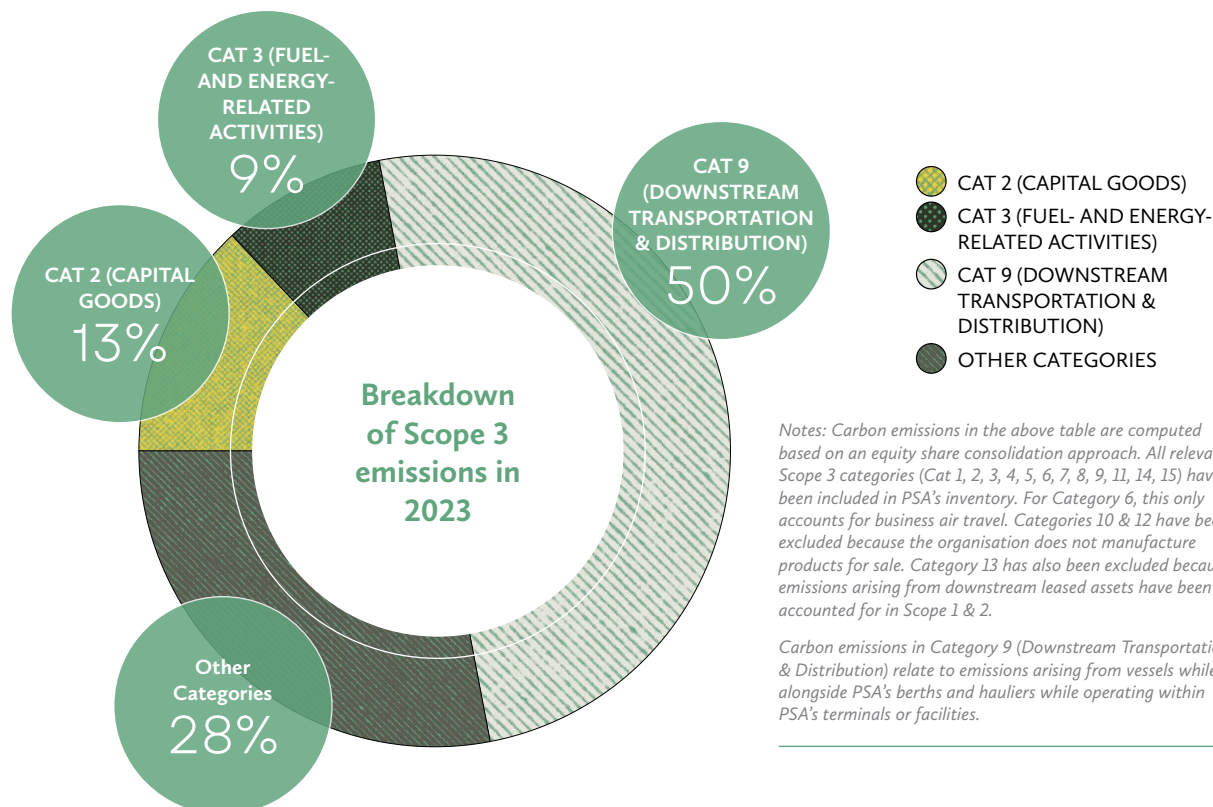
Note: Scope 1 and 2 emissions in this portion are based on 100% and are not adjusted for equity share.

Scope 3 Emissions

In 2023, Scope 3 emissions assessed to be relevant to PSA totalled 1,562 kTCO₂e. The majority of Scope 3 emissions is attributed to category 9 (Downstream Transportation & Distribution), which accounted for 50% of Scope 3 emissions.

Beyond decarbonising our own operations, to address Scope 3 emissions, PSA works in close collaboration with our partners to identify and deploy decarbonisation

solutions throughout our value chain. These industry and partner collaborations range from the deployment of renewable energy and alternative and sustainable fuel; the development of Green Corridors; and the employment of sustainable procurement practices. In Q4 2024, we will again hold the PSA Suppliers Alongside workshops to share PSA's sustainability framework and vision with suppliers, while also briefing them on upcoming efforts and initiatives to track relevant ESG indicators and carbon emissions.



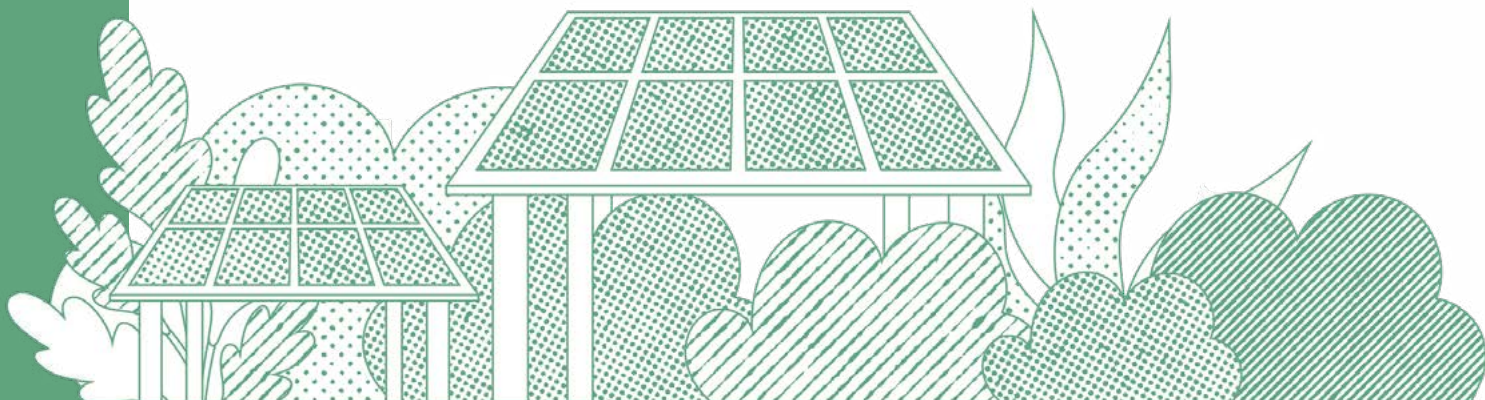
Mitigating Emissions and Minimising Energy Consumption

In addressing our energy consumption, PSA continues to innovate and develop solutions to optimise energy usage and consumption across our business units, through raising productivity to achieve high efficiency. Electrification of our equipment fleet is the top most priority while

we deploy other low-carbon fuels (LNG and biofuels) where possible. The generation of renewable energy from solar and wind power, as well as the optimisation of electrical grid and systems will reinforce our Scope 2 carbon emissions abatement.

PSA's Carbon Abatement Pathways

SCOPE 1 ABATEMENT	 LOW-CARBON FUEL OR ELECTRIFICATION • Use cleaner fuel (e.g. LNG, Hydrogen) • Hybridise equipment • Purchase full electric	 OPTIMISATION & ENERGY EFFICIENCY • Reduce wastage • Improve productivity • Optimise assets
SCOPE 2 ABATEMENT	 PURCHASE OF RENEWABLE ENERGY • Sign up to Power Purchase Agreements (PPA) • Participate in Energy Attribute Certificates (EAC) market	 ELECTRICAL GRID OPTIMISATION • Minimise use of electricity • Introduce smart grid • Introduce battery energy storage systems
	 GENERATION OF RENEWABLE ENERGY FOR OUR OPERATIONS • Accelerate investment in renewable energy assets • Study use of energy vectors that can be used for self-generation of renewable energy	
NATURE & TECHNOLOGY-BASED SOLUTION	 NATURE & TECHNOLOGY-BASED SOLUTIONS • Participate in projects to explore solutions such as reforestation, carbon capture and utilisation (CCU), carbon capture and storage (CCS)	



Reducing Scope 1 Emissions through Electrification and Adoption of Low-Carbon Fuels

Through the implementation of automated and smart systems, replacement of equipment with energy efficient options, and process optimisation projects, PSA made incremental progress towards lowering the energy intensity of our operations. This includes Group-wide efforts to implement energy optimisation in cranes and buildings, smart auxiliary systems to conserve energy, wide-scale LED lighting and yard crane workload optimisers.

As a key element of PSA's sustainability transition, we aim to reduce our reliance on less efficient forms of fuel and shift towards cleaner forms of energy through hybridisation or full electrification of our equipment. For example, an electric or hybrid Rubber Tyred Gantry Crane (RTG) can achieve 50% or more fuel savings compared to a diesel RTG. In 2024, we have enhanced our initial target of achieving 90% of RTGs to be electric or hybrid by 2030 to all cranes instead. Beyond RTGs, this extends to quay cranes, rail mounted gantry cranes, mobile harbour and automated stacking cranes. Based on our enhanced goal, PSA has achieved 77% of all cranes to be electrified or hybridised as of end 2023. We also seek to extend electrification and hybridisation to other commonly utilised machinery within our operations such as prime movers, forklifts, empty container handlers, reach stackers, and service vehicles.

In 2023, new electrification initiatives were deployed across PSA's operations.

- PSA Singapore embarked on the use of battery-powered electric prime movers (ePMs). A total of 6 units for terminal usage were onboarded in 2023 and are presently undergoing trials in Pasir Panjang Terminals.
- As part of the Green Straddle Carrier program initiated by Antwerp Terminal Services (ATS), MSC PSA European Terminal (MPET) and PSA Antwerp, the three Belgium-based companies are exploring four alternative technological pathways – hydrogen, biofuel, hybrid and full electrification – to reduce emissions arising from straddle carriers. In the first half of 2023, pilot trials involving a hydrogen dual-fuel straddle carrier and a fully electric straddle carrier were launched to evaluate the performance of such equipment in live operations. The hydrogen dual-fuel straddle carrier is the world's first. It utilises state-of-the-art H₂ dual-fuel combustion engine technology developed by cleantech company CMB.TECH and is integrated into a straddle carrier with the support of ATS, paving the way towards significant carbon savings.

- Over at PSA BDP, we have invested in a fleet of electric trucks from a leading Electric Vehicle (EV) truck producer in India. This is to support our commitment to decarbonising our operations and creating sustainable solutions for our customers. The trucks will be powered by PSA Mumbai's Open Access Solar Plant, making available a zero emission transportation solution to the Indian market, delivering optionality with sustainability for customers.

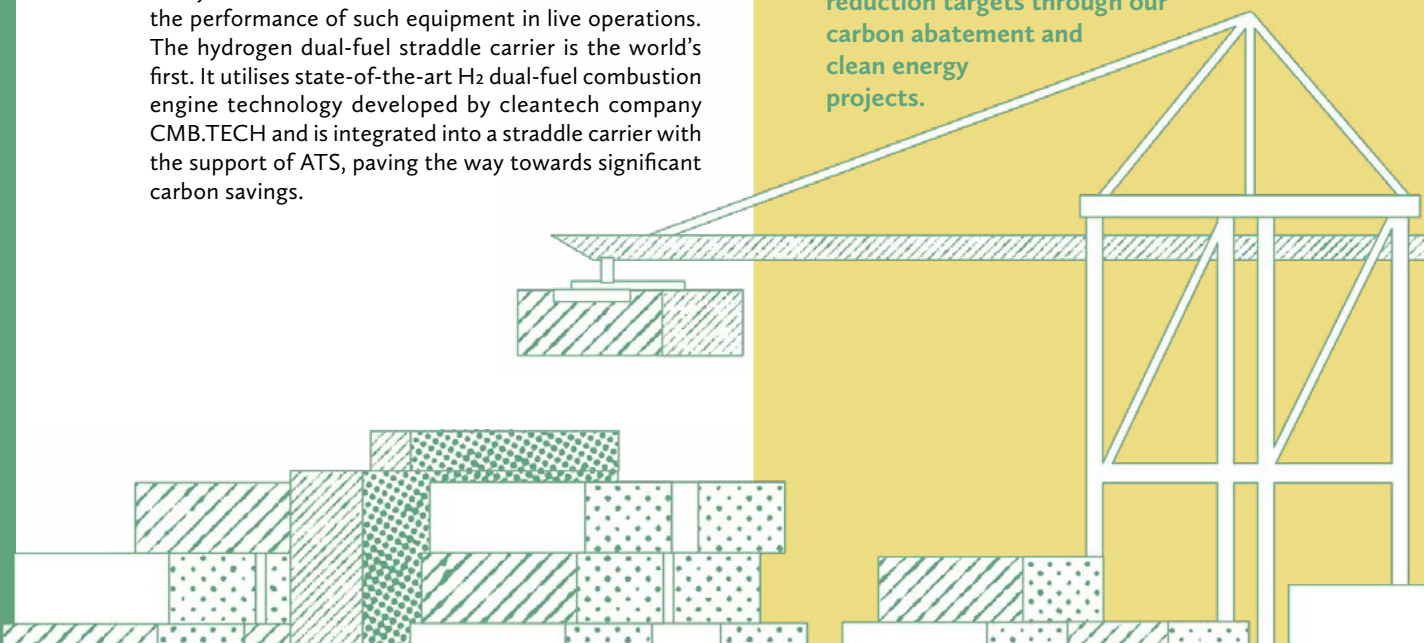
Coupled with electrification, PSA aims to deploy effective low-carbon fuels where feasible to reduce the reliance on diesel in our operations.

In 2023, the scaled-up use of LNG, biodiesel and hydrogen in our operating equipment has led to close to 11,200 tCO₂e in carbon savings. These efforts contribute to achieving PSA's interim and long-term climate action goals and assist to future-proof PSA's operations moving forward.



PSA INTERNATIONAL AWARDED
"B" SCORE IN INAUGURAL
CDP CLIMATE CHANGE
ASSESSMENT SUBMISSION

PSA International has been accorded a "B" score in its inaugural submission to CDP for the Climate Change Assessment 2023. This achievement underscores PSA's commitment to transparency, as we continue to strive for progress against our climate science-aligned emissions reduction targets through our carbon abatement and clean energy projects.



Tapping on Renewable Energy

To achieve decarbonisation at an impactful scale, it is essential for port and logistics players to shift towards clean energy and generate zero Scope 2 carbon emissions in the long term. PSA seeks to increase the adoption of renewable energy by regularly assessing the feasibility of implementation across our operations.

FURTHERING THE DEVELOPMENT OF RENEWABLE ENERGY

PSA Mumbai is now India's first fully renewable energy-powered container terminal. In partnership with O2 Power Pte Ltd ("O2 Power"), PSA has commissioned a 7.8MW solar farm, which will be expanded to 10MW by 2024. Through the commissioning of the plant and by tapping on other renewable energy providers, the terminal's carbon emissions will be reduced by a projected 16,000 tonnes annually and more than 350,000 tonnes over the terminal's lifespan. These efforts significantly contribute to PSA Mumbai's goal of achieving a 50% reduction of emissions by 2030 against a 2019 baseline.

11 of our business units have installed solar photovoltaic systems to harness solar energy to generate electricity for buildings and crane lightings. Collectively, they generated close to

13,000
MWh

of solar energy in 2023.

To support our efforts in self-generation and shift towards renewables where self-generation may not be feasible, PSA seeks to procure renewable electricity from suppliers in the market through power purchase agreements and unbundled energy attribute certificates. For Tianjin Port Container Terminal (TPCT), PSA has been able to offtake renewable energy from three wind turbines, which have been operationalised since Q1 2023. Through the adoption of such mechanisms for our business units in the Europe & Mediterranean, Americas and Northeast Asia regions, our electricity-related emissions have reduced by 92,500 tonnes of CO₂e in 2023.

PSA continues to build partnerships across its operations towards greater decarbonisation and the deployment of clean and sustainable technologies. In July 2023, PSA inaugurated Guangxi Qinzhou Renewable Energy Investment Co., Ltd. in China, a joint venture between PSA Green (PSA's subsidiary company), Tianjin Ocean Shipping Co., Ltd. and Guangxi Beibu Gulf Luhai New Energy (under Beibu Gulf Port Group). The company invests in distributed renewable energy projects in the Qinzhou Port area. The JV's first project is a 5.5 MW solar energy project which is expected to be operational in 2024.

Decarbonisation in Collaboration with Our Value Chain

Scope 3 emissions generally form the bulk of an organisation's emissions. Beyond addressing our own emissions, PSA has been able to create a wider impact by collaborating with our partners to implement decarbonisation initiatives throughout our value chain.

At PSA Singapore, the OptEVoyage digital solution seeks to reduce emissions for vessels on route to PSA terminals as well as to shorten vessel turnaround. Facilitated by transparent real-time activity synchronisation on vessel locations and berth availability, OptEVoyage aims for just-in-time arrivals, resulting in significant bunker and carbon emissions savings.

PSA BDP is focused on providing reliable data on freight-related emissions to our customers. We have launched the Carbon Dashboard Project, which will send all freight journeys to the industry-recognised carbon calculation engine EcoTransIT World, storing the emissions data alongside customer freight data in our central database. The data will be made available to our internal teams and customers, informing and influencing customers' freight decisions towards greener transport options.

Ensuring Responsible Operations

MARINE PROTECTION AND CONSERVATION

GRI 3-3, 304-2

PSA embraces its role in safeguarding our planet's biodiversity and in impacting our surrounding ecosystems positively. As PSA develops its infrastructure, we focus on managing the potential impacts on biodiversity through proactive assessments and impact mitigation.

Why It Is Important

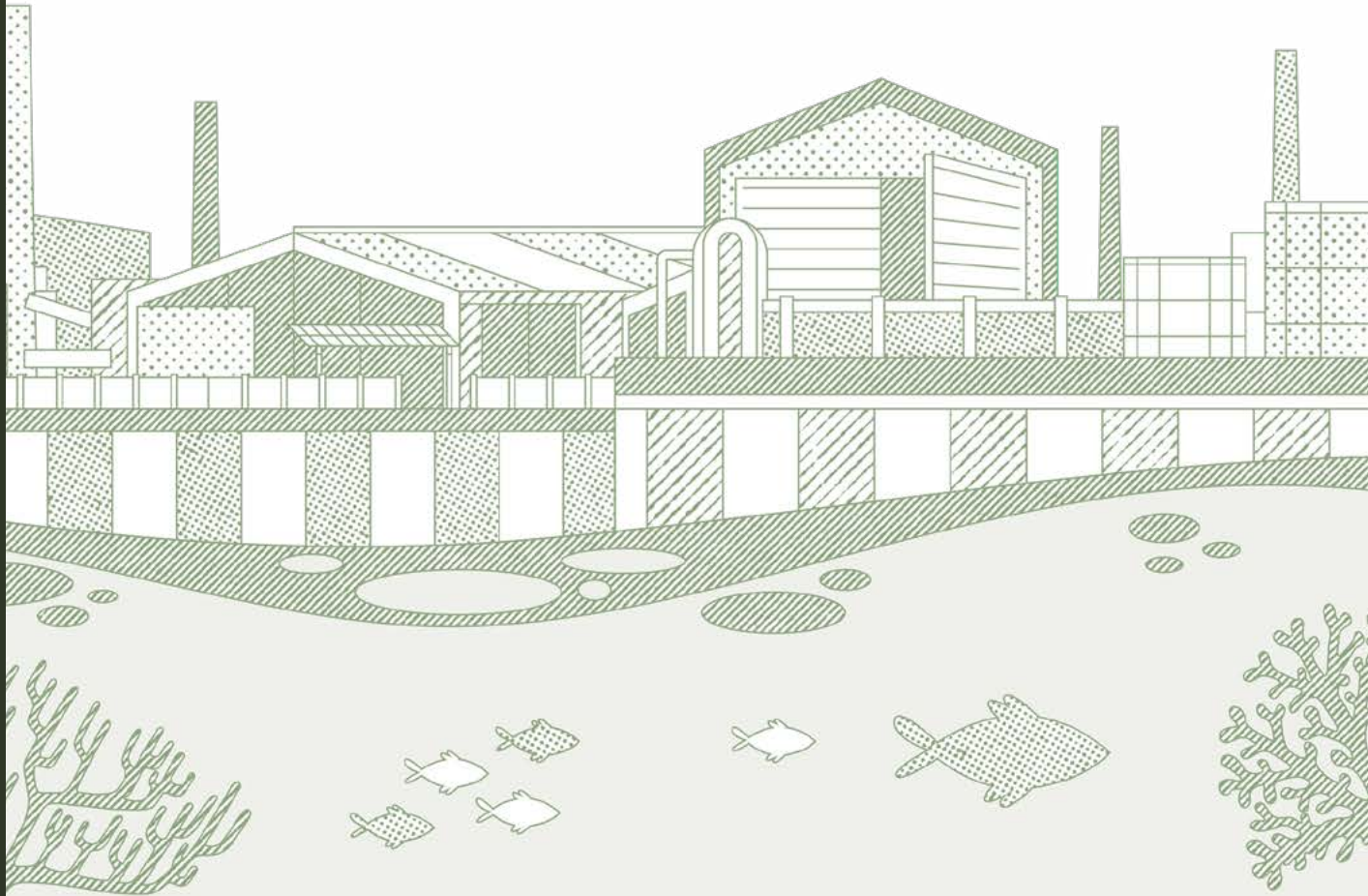
PSA's activities interact with marine wildlife and its environment. Given the significant impact of climate change on marine life, it is crucial for businesses interacting with marine ecosystems to ensure that their activities do not cause or worsen potential adverse effects. This extends to operations and infrastructure development works such as land reclamation and dredging. At PSA, preserving our marine life and ecosystems is of utmost priority for us.

Our Approach

PSA's Climate Response Management System ensures a comprehensive and proactive approach to managing our environmental impact across all our business units. The framework mandates all business units to assess and manage their environmental impact, maintain a legal register and ensure compliance with all local environmental laws, regulations and standards, including the proper management of waste effluents from terminal development and construction to operations and maintenance. In line with our commitment to sustainable port development, we conduct Environmental Impact Assessments (EIA) prior to commencing construction of civil infrastructure and assets to assess potential environmental impacts. From the results of the EIA, strict environmental quality objectives are established to ensure full compliance during construction.

Beyond maintaining compliance, PSA takes progressive steps to actively support marine and nature conservation in locations where we operate, through research and monitoring of marine life and ecosystems and the incorporation of thoughtful design in our infrastructure. In addition, educational programs are implemented to increase awareness and encourage marine conservation amongst our employees and local communities.





Sustainable Infrastructure Development

Our business units ensure that projects adhere to local regulations and incorporate measures to minimise their environmental impact on the surrounding area.

At PSA Mumbai, we are carrying out construction work to expand the terminal's operational capacities, while also actively managing any potential impacts these activities may bring. A comprehensive approach is taken to ensure that wildlife and the surrounding environment remain unaffected as the port develops. A Marine Environmental Management Plan (MEMP) was developed to monitor marine ecology so as to maintain a healthy ecosystem. PSA Mumbai partnered with the Council of Scientific & Industrial Research-National Institute of Oceanography (CSIRIO) to carry out studies on the potential effects of the project on biodiversity and shoreline changes till 2025. This included water and sediment sampling, and mangroves and wildlife monitoring. In addition, the Gujarat Institute of Desert Ecology (GUIDE) was appointed to carry out studies on migratory birds to assess their diversity and to ensure migration seasons remain unaffected by industrial activities and noise. An Environmental and Social Action Plan was developed to safeguard environmental, social and health and safety performances, and to mitigate the associated environmental and social risks and impacts. Through these initiatives, PSA Mumbai ensures impact on marine life and the local communities depending on the environment for their livelihoods is kept to a minimum.

At Mersin International Port, before the construction of infrastructure, environmental studies are conducted with guidance from professional specialists. This includes studying sediment characterisation and biodiversity. Based on the results of the assessments, mitigation measures are adopted to help animals steer clear of building sites to ensure their safety. Investigations on existing marine biodiversity are also conducted on an ongoing basis to assess the impact of construction in the area.

Minimising Water Pollution Through Proper Waste Management

The maintenance of appropriate water quality is fundamental to minimising water pollution and protecting marine life. PSA addresses water pollution comprehensively through thorough planning, proper waste management procedures, and initiatives to reduce waste in the ocean.

Our PSA Marine business units implement a holistic approach towards minimising water pollution. In terms of overall governance, our business units comply with international standards including the International Safety Management Code to ensure safe operations and pollution prevention onboard all vessels. Shipboard Oil Pollution Emergency Plans (SOPEP) are also established to provide guidelines on proper procedures in the event of an oil spill. Business units around the world also regularly organise beach and sea clean-up activities.

WASTE MANAGEMENT AND RECYCLING

GRI 3-3, 306-1, 306-2, 306-3

PSA is committed to minimising our waste footprint and championing sustainable practices, recognising the critical role businesses play in waste reduction.

Why It Is Important

As a non-manufacturing company, PSA's waste footprint is relatively small. Nevertheless, PSA continues to engage in waste reduction and recycling techniques as well as other circular strategies to optimise resource efficiency.

By taking the lead on waste management, we hope to inspire businesses throughout our supply chain and industry to follow suit, creating a ripple effect that can cultivate a more sustainable business ecosystem. This approach not only benefits the environment but also enhances the wellbeing of our communities and stakeholders.

Our Approach

Management of Our Waste-related Impacts Across PSA Group

Waste, in the form of waste oil, used batteries, paper, plastics, and food, is produced during the operations and maintenance of port equipment, warehouse, workshop facilities and office buildings.

To mitigate PSA's environmental footprint, we have implemented stringent waste management protocols. All waste-handling practices must adhere to the standards laid out by the Group Health, Safety, Security and Sustainability (HSSS) policy and local regulations. Business units are mandated to utilise government-approved disposal sites and engage with contractors possessing professional qualifications. When engaging third-party waste and recycling firms, they must also comply with local regulations for waste transport, disposal, and recycling. Additionally, it is imperative for business units to engage in meticulous record-keeping of waste disposal activities, in accordance with local laws.

Minimising Waste Generation

PSA's efforts to minimise our environmental footprint extend beyond waste management. We engage in proactive waste reduction strategies through the integration of the 3Rs – Reduce, Reuse, Recycle – into the fabric of our organisational culture. Where possible, our business units include the application of circularity principles as criteria in our waste management contracts. Vendors are required to demonstrate that they can provide detailed segregation of waste streams, and information on the type of materials recycled and their end products. We also implement closed-loop systems across our business units, repurposing materials like empty chemical drums, used tyres, decommissioned vehicle batteries, steel cables, and air-conditioning units, thereby curbing waste generation while realising cost efficiencies.

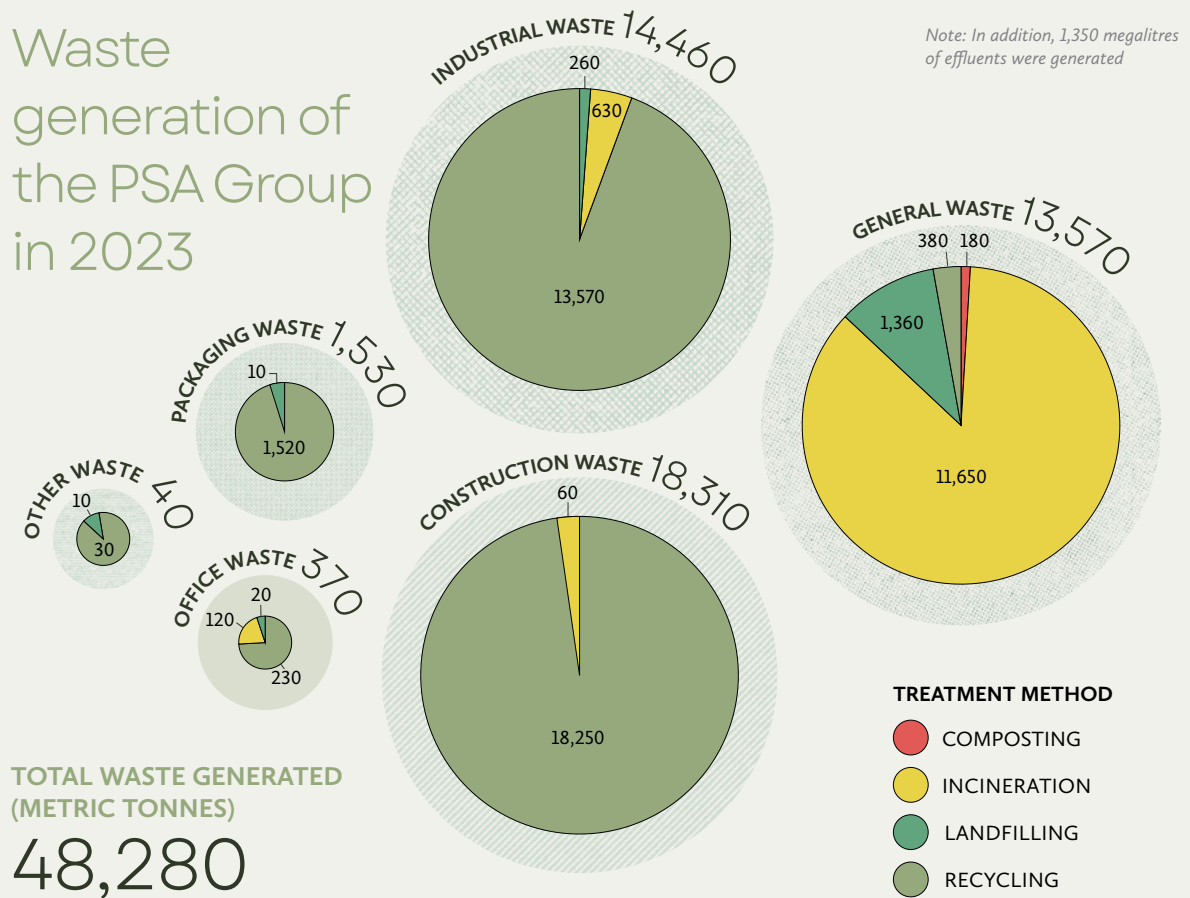
PSA also works closely with our stakeholders on waste minimisation initiatives. For example, HMM PSA New-Port Terminal (HPNT), through close collaboration with shipping lines, managed to achieve 100% paperless invoicing in 2023, resulting in both reduced paperwork and generated waste. PSA Singapore also embarked on a joint study with one of our customers to assess the feasibility of recycling liner waste (e.g. paper, plastics, and metal cans). For a start, around 20m³ of material was collected from 9 vessels across 2 months in 2023.

To optimise our waste management strategies, PSA's business units have been consistently reporting on waste data on a biannual basis to identify opportunities for waste reduction and recycling. Our business units work with their engaged third-party waste management providers who will judiciously track and provide such data.

We have also disseminated best practices among our business units, facilitating a culture of knowledge exchange while enhancing our capacity to implement impactful waste reduction initiatives.

In 2023, we generated a total of 48,280 metric tonnes of waste across our business units, with a recycling rate of 70%.

Waste generation of the PSA Group in 2023



Going Green for a Good Cause

PSA strengthens our green culture through activities that promote the 3Rs. Annually, PSA spearheads the Go Green campaign globally. This campaign unites our employees worldwide in environmentally friendly activities such as tree planting, beach cleaning, and recycling. At the business unit level, we work to implement local initiatives regularly, including environmental talks and recycling drives. Additionally, PSA actively integrates our community initiatives with our environmental activities. This approach enables us to simultaneously contribute to broader societal welfare while minimising waste.



Saudi Global Ports Promotes a Culture of Waste Minimisation Amongst Employees

In 2023, Saudi Global Ports (SGP) conducted a donation and recycling campaign in collaboration with Joud Charity, EADA (Sorting and Recycling Co. for Environment Services) in the Eastern Province, Irgah Charity, and Eayni Recycling Association Cooperative in Riyadh. SGP employees were encouraged to contribute by donating their pre-loved items and e-waste. The e-waste was directed to EADA and Eayni, with 100% of the proceeds from e-waste sales channelled to Joud and Irgah charities. SGP employees also started a campaign to reduce the use of plastic bottles in the office and have worked with Tadweer to compost food waste generated at the SGP residence. The compost was subsequently used at SGP's Go Green Week 2023 Tree Planting Day, as part of promoting the approach of waste circularity.

WATER USE AND POLLUTION

GRI 3-3, 303-1, 303-2, 303-3

Water is a critical resource for PSA's terminal and supply chain operations. We prioritise the effective management of water through optimising usage and ensuring that it remains free from pollution.

Why It Is Important

For PSA, the primary utility of water spans numerous operational tasks including maintenance, repair, and sanitation. PSA is committed to safeguarding the wellbeing of the communities around us by ensuring water remains pollution-free and utilising water in a sustainable manner. PSA sources water directly from natural sources in our surrounding environments and through third-party providers. Throughout our operations, we utilise water and dispose of wastewater in a sustainable and responsible manner.

Our Approach

Water is a critical resource withdrawn across our operational areas. PSA's Group Health, Safety, Security and Sustainability (HSSS) policy governs the sustainable management and proper disposal of water. The policy ensures PSA's business units comply with all relevant regulations and legislations while adopting measures to ensure the management of wastewater including abiding by local regulatory limits of waste content in wastewater upon discharge.

PSA aims to ensure the sustainable usage of water by promoting sustainable practices amongst our employees through awareness activities. We also implement water-efficient technologies in infrastructure and equipment to minimise water loss and consumption. We actively track and monitor consumption to ensure wastage is kept to a minimum, and where possible, utilise harvested rainwater to reduce overall water withdrawal.

In Belgium, PSA Antwerp installed rainwater collection tanks with a total capacity of 345,000 litres. This allowed PSA Antwerp to reap annual savings of 3 million litres of potable water through its operations. In Singapore, potable water savings are reaped from the use of nine rainwater collection tanks spread across our engineering workshops in the City Terminals and Pasir Panjang Terminals, our corporate headquarters PSA Horizons, and Tuas Port.

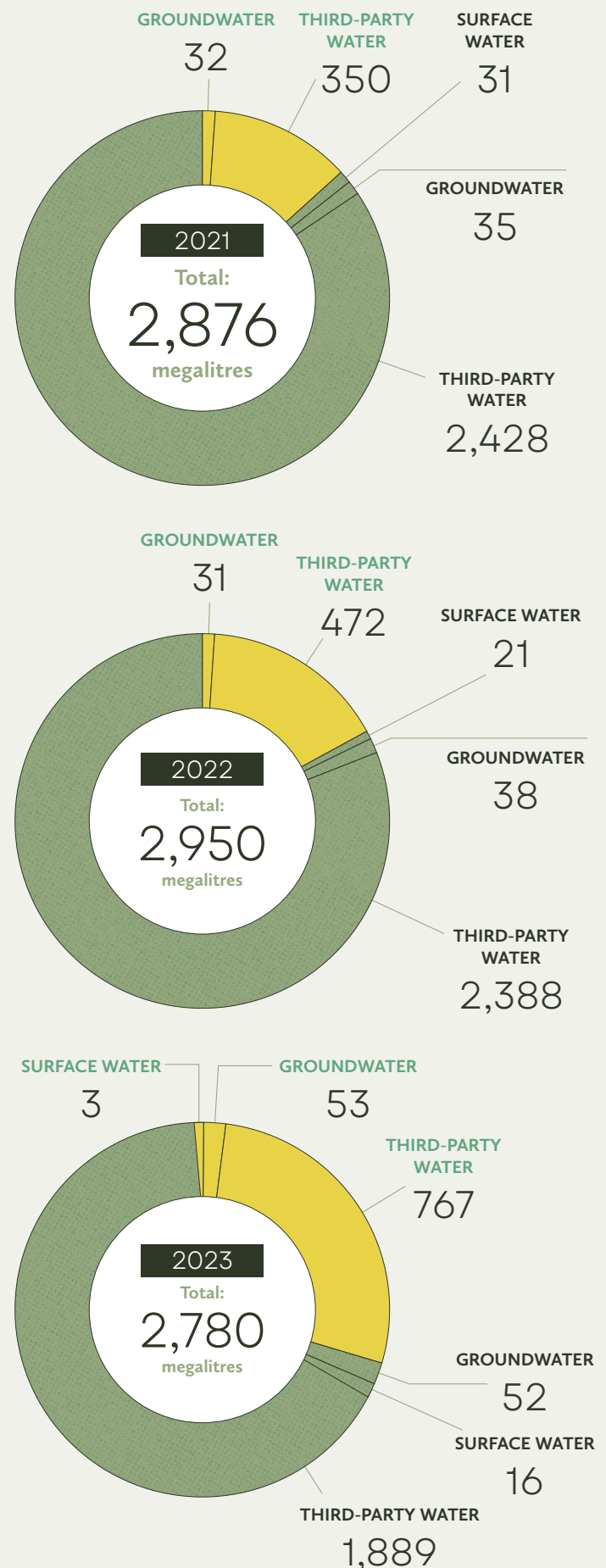


Water Consumption

Based on the analysis done using the WRI Aqueduct Water Risk Atlas Tool, the number of water-stressed areas for which PSA operates in have increased. Nonetheless, in 2023, PSA made further progress in the reduction of water usage, decreasing total consumption by 5% from 2022 through our various initiatives at our business units.

Total Water Withdrawal of the PSA Group

- WATER WITHDRAWAL FROM WATER-STRESSED AREAS (MEGALITRES)
- WATER WITHDRAWAL FROM NON-WATER-STRESSED AREAS (MEGALITRES)



Notes: To identify water-related impacts, every year, PSA uses the WRI Aqueduct Water Risk Atlas Tool to determine water-stressed areas. The latest was conducted in March 2024. Water-stressed areas are areas where the ratio of total annual water withdrawal to total available annual renewable water supply (i.e. baseline water stress) is high (40-80%) or extremely high (>80%), based on recommendations by GRI Standards 303: Water and Effluents 2018. The water withdrawal figures for 2021 and 2022 have been restated after data checks performed by business units.

SOCIAL



IN THIS SECTION

Nurturing a Future-Ready Workforce

People Development
Occupational Health and Safety

Protecting Our People

Employee Diversity and Inclusion
Labour Relations and Worker Wellbeing

Supporting Our Communities

Community Relations

Nurturing a Future-Ready Workforce

PEOPLE DEVELOPMENT

GRI 3-3, 2-7, 2-8, 401-1, 404-1

PSA is dedicated to cultivating a skilled and motivated workforce, offering resources and opportunities for growth. Our commitment to nurturing our people alongside our corporate culture is pivotal to realising our aspirations and sustaining our success.

Why It Is Important

“Focusing on People” is at the heart of PSA, where we recognise that collective success emerges from mutual respect, nurturing, and being supportive within our team. We actively involve our employees in shaping a great work environment – one that fosters a cohesive corporate culture and a shared sense of purpose.

Recognising the potential for positive impact through continuous investment in our employees’ learning and development, we ensure that they acquire the necessary skills and knowledge to thrive in a dynamic landscape. These training and advancement opportunities also enhance our employees’ prospects for future employability, thereby improving the livelihoods and local economies of our global pool of employees.

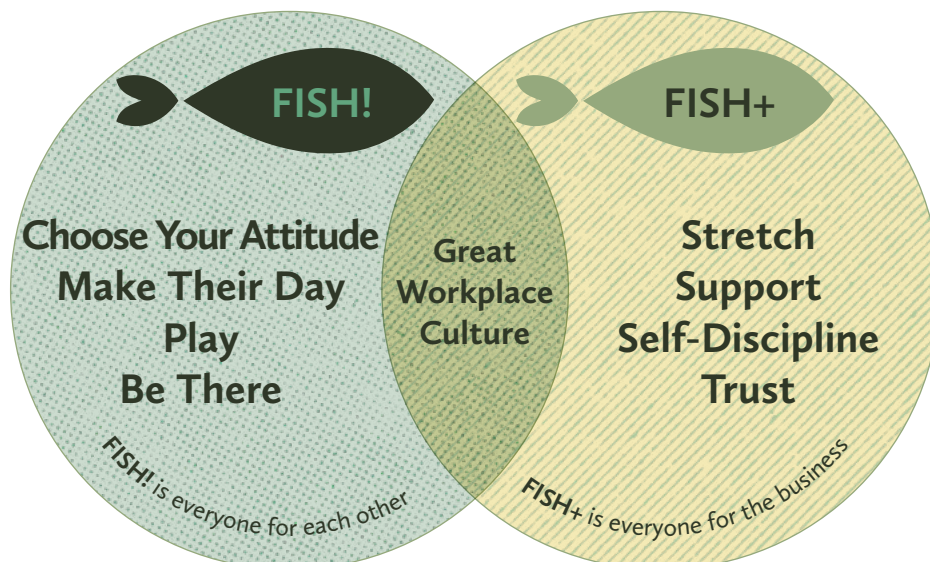
Our Approach

Developing a Great Workplace Culture

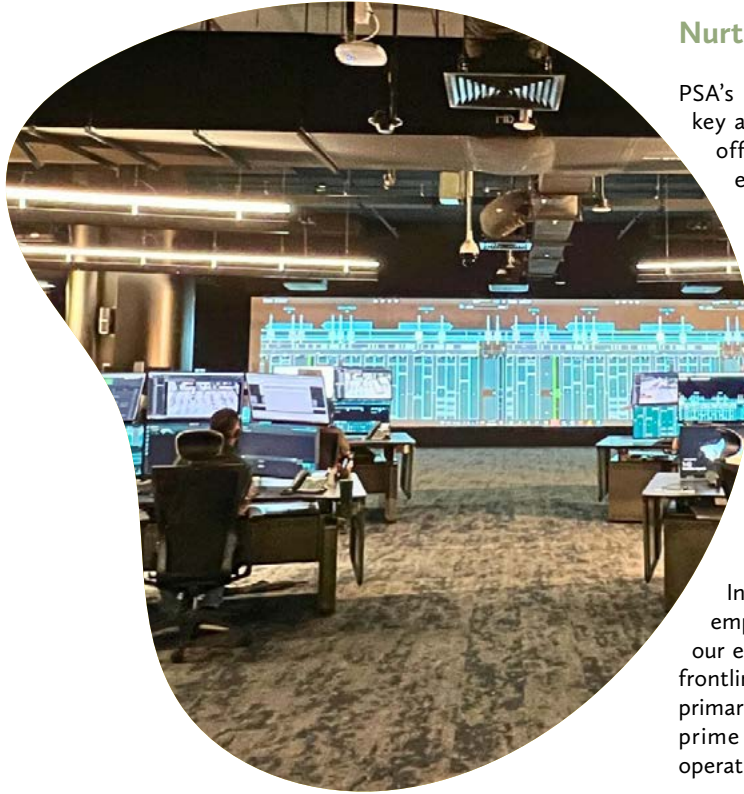
PSA’s workplace culture development is rooted in the FISH!® philosophy. Grounded in the FISH! Principles of “Make Their Day”, “Choose Your Attitude”, “Be There” and “Play”, this philosophy serves as the cornerstone of our commitment to enhancing PSA’s organisational culture, with the goal of fostering workplace happiness. Our robust culture empowers employees to excel and support one another.

PSA has implemented FISH! Principles globally across its business units and expanded them to include PSA’s FISH+ Principles – “Stretch”, “Support”, “Self-Discipline” and “Trust”. Throughout the year, employees are given the opportunity to participate in various FISH-related campaigns, contests, and workshops covering leadership, sustainability, innovation, and mental wellness, among others. Additionally, employees can also utilise FISHapp or FISH 365 to send fish as a form of appreciation for one another.

The FISH Ecosystem



* FISH! is a trademark or service mark of ChartHouse Learning. For further information on the world-famous Pike Place Fish Market and the FISH! Philosophy, please go to <https://fishphilosophy.com/fish-philosophy-story/>



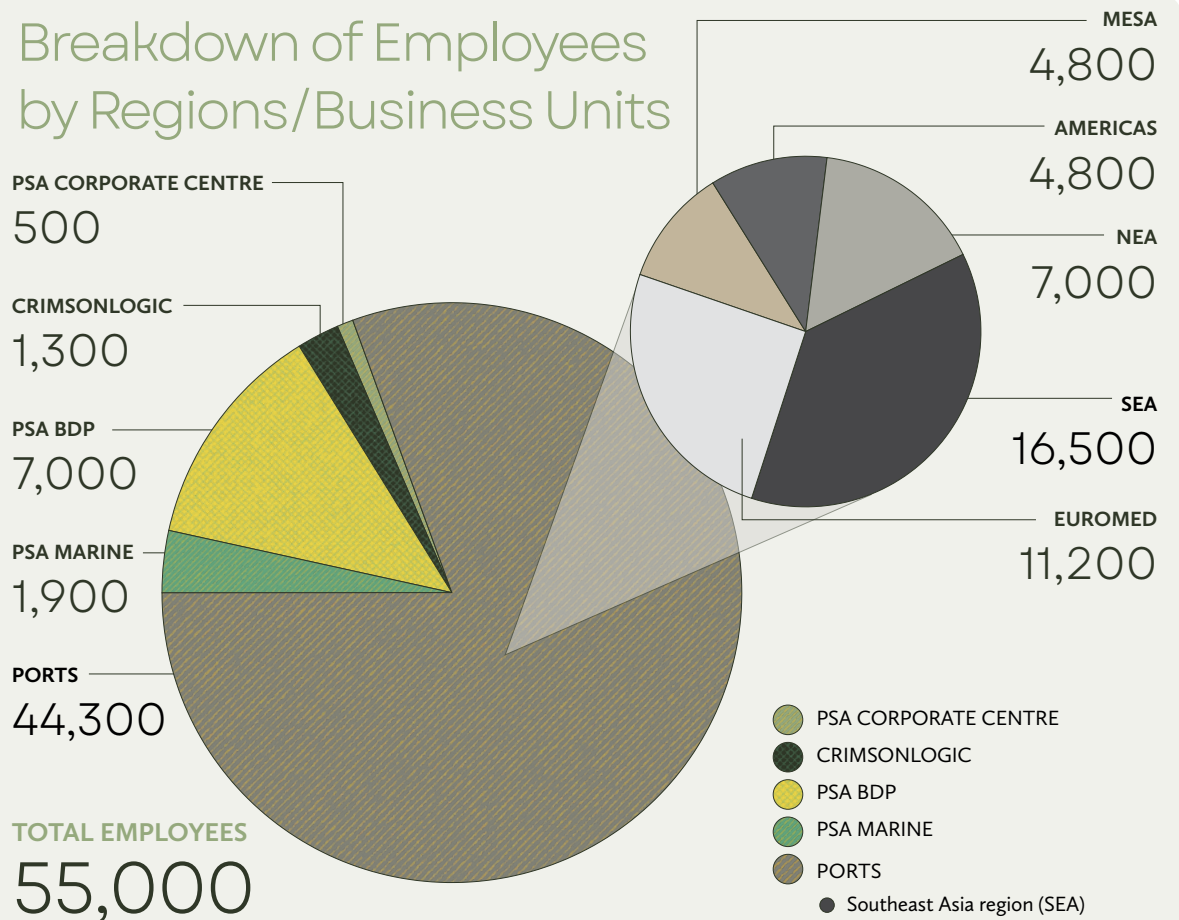
Nurturing a Future-Ready Workforce

PSA's People Strategy Framework, centred around the key areas of Acquire, Develop, Integrate, and Engage, offers a comprehensive approach to managing the entire employee's professional career lifecycle. This strategic framework aligns with business objectives and demonstrates PSA's adaptability to evolving needs, ensuring relevance in a dynamic business landscape. By providing consistent initiatives, we aim to enhance our reputation as an employer of choice and empower employees with the tools and resources necessary for continuous improvement, creativity, agility and resilience to meet future challenges.

Our Workforce Profile

In 2023, PSA's global workforce grew to around 55,000 employees, of which 12,000 are contractors. Most of our employees are directly employed by PSA, serving as frontline or permanent office-based staff. Contract staff primarily fulfill crucial roles in port operations, including prime mover driving, lashing operations, and wharf operations supervision during peak periods.

Breakdown of Employees by Regions/Business Units



Notes: The numbers represent headcount at the end of the reporting period, 31 December 2023. PSA BDP, ALISAN, and SOTRANS figures have been included in this chart. Employee numbers increased in 2023 as compared to 2022 due to organic growth and acquisition of new entities.

In addition, the reporting scope in 2023 was enhanced to include additional entities from the Ports – NEA and PSA Marine regions for which headcount figures were previously not captured in the database.

Recruiting and Retaining Our Employees

PSA aims to recruit top-tier talent from diverse backgrounds, ensuring our recruitment practices remain impartial and free from discrimination. To support this goal, we have created a global recruitment best practice toolkit for our business units.

Business units may tailor recruiting strategies to be relevant to local culture and regulations, which may involve collaborating with local universities for career events, organising talent programs and offering scholarships.

New Hires in 2023

REGION	AGE GROUP						GENDER			
	Under 30 years old		30-50 years old		Over 50 years old		Male		Female	
	Number	Hiring Rate	Number	Hiring Rate	Number	Hiring Rate	Number	Hiring Rate	Number	Hiring Rate
PSA Corporate Centre	19	39%	33	10%	2	1%	26	9%	28	13%
Ports - SEA	789	29%	298	5%	16	1%	951	9%	152	15%
Ports - EUROMED	503	32%	562	9%	72	3%	980	11%	157	16%
Ports - MESA	278	36%	300	13%	12	3%	543	17%	47	31%
Ports - AMERICAS	178	22%	197	8%	21	4%	291	9%	105	22%
Ports - NEA	78	14%	56	2%	36	6%	148	5%	22	4%
PSA Marine	162	46%	158	15%	26	6%	316	19%	30	24%
CrimsonLogic	35	11%	62	8%	3	3%	69	8%	31	8%

Turnover in 2023

REGION	AGE GROUP						GENDER			
	Under 30 years old		30-50 years old		Over 50 years old		Male		Female	
	Number	Turnover Rate	Number	Turnover Rate	Number	Turnover Rate	Number	Turnover Rate	Number	Turnover Rate
PSA Corporate Centre	6	12%	26	8%	9	6%	24	8%	17	8%
Ports - SEA	327	12%	613	9%	153	8%	948	9%	145	14%
Ports - EUROMED	145	9%	347	6%	226	10%	617	7%	101	10%
Ports - MESA	98	13%	213	9%	19	5%	308	10%	22	15%
Ports - AMERICAS	163	20%	314	13%	65	11%	447	14%	95	20%
Ports - NEA	25	4%	39	2%	66	11%	92	3%	38	6%
PSA Marine	62	18%	126	12%	48	11%	216	13%	20	16%
CrimsonLogic	31	10%	86	11%	16	15%	88	11%	45	12%

Note: This only includes direct hires.

Performance and Career Development

Regular performance and career development reviews are crucial for building a culture of accountability and excellence in the workplace. In turn, this cultivates a sense of ownership among employees. At PSA, employees participate in periodic performance assessments to evaluate their achievements and progress throughout the year. These assessments encompass various aspects such as individual performance incentives, promotion prospects, salary adjustments and developmental needs. Leveraging the RED360 feedback tool, this serves as a platform for direct and open communication between employees and management regarding job satisfaction and career goals.

Our robust career planning and development process caters to the diverse career aspirations of our employees. PSA actively identifies employees with leadership potential, enrolling them in global leadership training programs to further nurture their skills and capabilities. The Short-Term International Development Experience (STRIDE) program is one such example, developed to provide identified talents with international exposure and business acumen, and to drive strategic business projects. Since its onset in 2014, the program has benefitted over 80 participants.

Another initiative is the PSA Horizons Development (PHD) which takes a holistic approach to leadership development. By aligning talents with PSA's strategies and aspirations, we cultivate cross-functional perspectives and expand their global network, thereby enriching our franchise value.

To achieve PSA's sustainability goals, we aim to foster a Group-wide sustainability mindset by linking our performance reviews to sustainability progress. This initiative drives accountability and empowers employees to take ownership of sustainability practices. During our annual performance management process, employees are prompted to reflect on their contributions to sustainability efforts and set actionable goals for the upcoming year. At the corporate level, specific sustainability key performance indicators are established, monitored and integrated into annual performance-related compensation structures.

Global Employee Opinion Poll (EOP) to Measure Employee Engagement and Wellbeing

PSA conducts a global Employee Opinion Poll (EOP) once every three years to collect employee feedback, identify and address areas for improvement. The EOP aims to enhance employee satisfaction, productivity, and retention rates.

The most recent iteration of the EOP, conducted in 2023, saw a participation rate of 95%, compiling feedback from more than 23,000 employees globally across 26 business units, exceeding our target of 75%. Engagement indicators demonstrated strong leadership, global championship and a vibrant innovation culture across PSA. The FISH culture continued to be voted as one of the top initiatives, reflecting the importance of a good culture in the workplace.

ENGAGING ITALY'S YOUNG MARITIME TALENTS

PSA Italy hosted 25 students from the Italian Academy of the Merchant Navy as part of the cohort's Business Process Officer program – aimed at helping students develop a holistic understanding of the maritime industry.

The students visited PSA Italy's PSA Genova Pra' and PSA SECH terminals in January 2023. As part of their two-year-long program, they will gain insights into the port industry, focusing on terminal planning and port hub organisation. Selected students will also intern at PSA Italy's terminals as part of the program.

Through these initiatives, PSA Italy aims to encourage and cultivate talent in the industry and position itself as an employer of choice.



Holistic Training Programs and Initiatives to Drive Continuous Learning and Development

In today's rapidly evolving business environment, strong leadership and employees' adaptability and resilience in the face of unprecedented events are paramount. At PSA, we aim to equip our workforce with the required skillsets to excel in such a landscape.

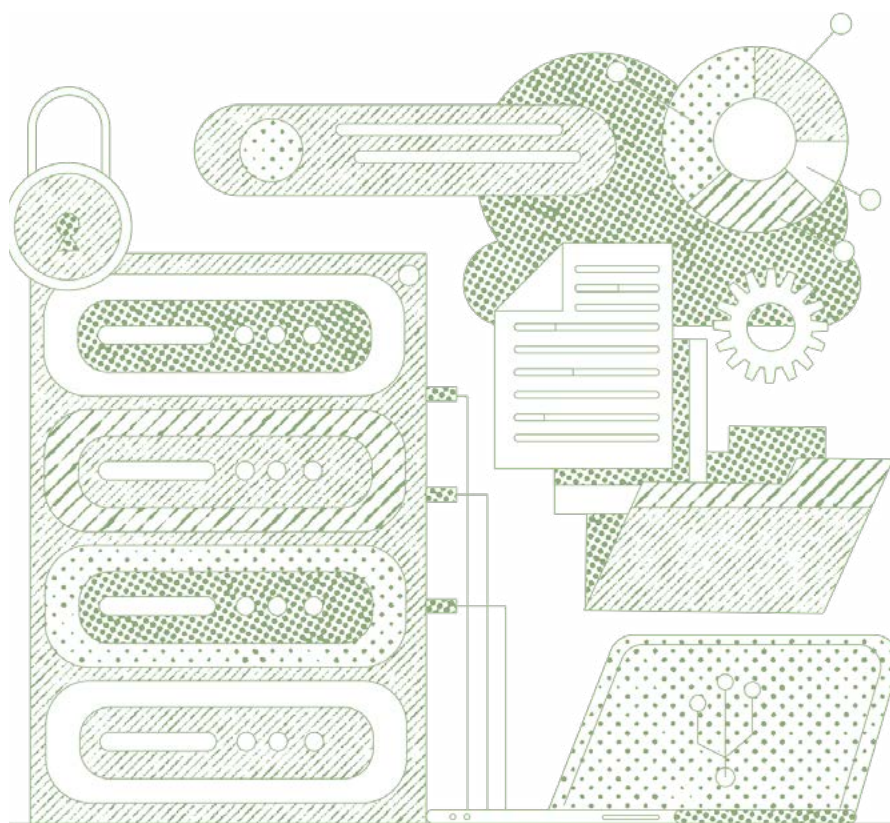
PSA provides training through a myriad of methods from structured classroom sessions and self-learning resources to mentoring and cross-functional assignments, striving to cater to the diverse needs of our workforce. To uphold training standards and quality, the PSA Group Learning Governance Policy outlines terms and conditions for the use of all Learning Content within the PSA Group, emphasising regular review to maintain relevance and quality. Regular stakeholder engagements are also conducted to discuss training needs and align training initiatives with our business and operational requirements. These engagements involve various avenues such as meetings with the PSA University (PSAU) Council and business leaders, post-training feedback forms and conference calls with global training coordinators and representatives.

PSA first introduced TalentTech 4.0 (TT4.0) in 2022, a platform aimed at shaping the future of work and learning while fostering a borderless workforce. Powered by AI and machine learning, TT4.0 empowers employees to self-source projects, mentorships, and learning opportunities throughout PSA, facilitating talent and skill transformation. In 2023, PSA integrated Udemy Business with TT4.0, providing employees with seamless automated learning recommendations aligned with their learning needs and career aspirations.

E-learning courses covering various topics including leadership, sustainability, data and technology, and supply chain, are constantly developed and rolled out to help our employees keep up with industry trends, organisational efforts, initiatives and practices. In 2023, "The Code Refresher" e-learning program was launched to ensure that employees remain fully conversant with The Code as well as PSA's policies and mechanisms to ensure ethical business conduct. We committed to a target for 80% of eligible employees to be refreshed on The Code through "The Code Refresher" e-learning program. As of end 2023, 94% of employees have undergone the training program.

With the advancement of digitalisation shaping how we work and operate, PSA acknowledges the importance of empowering our employees with the skills to navigate the dynamic and complex business landscape. In this regard, PSA has partnered educational institutions to offer high-quality training to our employees. For example, PSAU Singapore campus collaborated with the Singapore Institute of Technology (SIT) to provide cybersecurity training for our IT professionals, enhancing their expertise and ability to advise on system security. Similarly, PSAU Antwerp campus partnered with Vlerick Business School to deliver leadership development training, fostering talent growth and business acumen among their personnel.

In addition, the Digital Skills Academy (DSA) was launched in 2023 to consolidate training programs related to IT, data, and new technologies which enhance staff capabilities in navigating the digital landscape. Operated by PSAU in collaboration with Group HR, Group IT, Group Technology and Data for Excellence (DFE), the DSA will operate across campuses in Singapore and Antwerp, offering three levels of digital skills training. Basic courses will focus on improving staff IT literacy, preparing them for automation and digitalisation. Targeted programs will train select employees to develop solutions to enhance their business operations leveraging data analytics, robotic process automation (RPA), cybersecurity, and IT project implementation. Advanced training seeks to deepen the technical know-how of technology, IT and digital professionals to enable them to lead technological and digital transformation. The advanced course covers topics such as digital forensics and cybersecurity governance, referencing the Global Technology and Data Competency Framework developed by the Council for Digital Resource Development (CDRD).



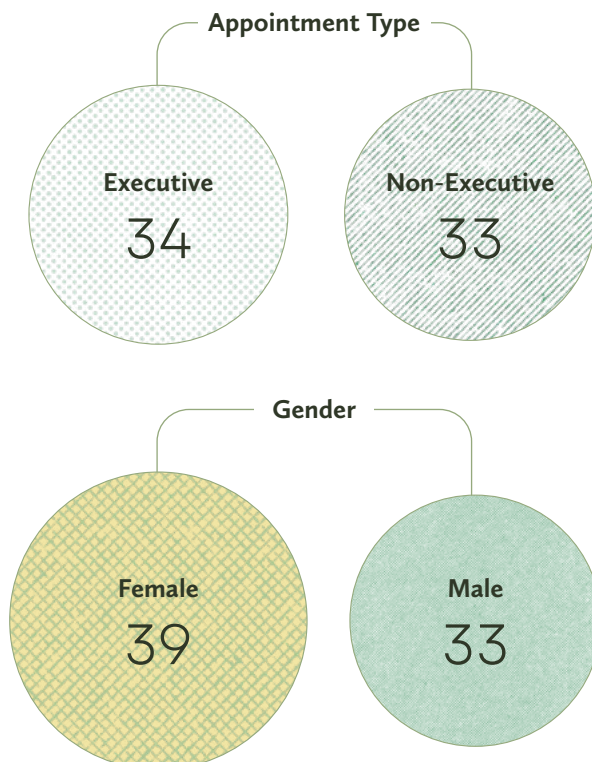
In 2023, PSA continued to provide training in various modalities. This includes:

- Structured classroom training
- Hybrid training including physical and both synchronous and asynchronous online learning
- Mentoring and coaching
- On-the-job training
- Cross-functional assignments
- Job rotations
- Long and short-term international postings
- Self-learning resources

Our training initiatives not only address specific functional job requirements but also aim at uplifting capabilities, leadership skills, and personal effectiveness. PSA aims to achieve an average of 16 training hours per employee* in 2023. Through our rigorous learning and development plans, we have achieved an average of 32 training hours per employee.

* For 2023, the target covered employees in business units with at least 50% effective interest. From 2024, this will be revised to cover employees in PSA and its subsidiaries.

Average number of Training Hours for PSA Employees in 2023



PSA UNIVERSITY AND THE SINGAPORE INSTITUTE OF TECHNOLOGY'S (SIT) MEMORANDUM OF UNDERSTANDING (MOU)

In a continuous endeavour to enhance our capabilities and foster skill development through strategic partnerships, PSA University has entered into a new MOU with SIT in 2023. Aimed at advancing collaborative efforts in upskilling programs for PSA employees in various areas such as cybersecurity, the MOU opens doors for innovation projects and research collaborations between both entities.

The collaboration entails co-creating training programs to support PSA's staff with relevant workplace learning and upskilling opportunities, as well as providing SIT students with internship and recruitment prospects. Additionally, both organisations will explore avenues for SIT students and faculty to engage in innovation projects addressing business challenges. The initial focus of this collaboration is a cybersecurity training program, jointly executed by PSA University and Group IT, with 13 PSA staff having completed the program. Future iterations of the PSA-SIT cybersecurity training program will continue to be a key area of collaboration under the MOU.

OCCUPATIONAL HEALTH AND SAFETY

GRI 3-3, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9

At the core of PSA's ethos lies an unwavering commitment to provide our workforce with a healthy and safe workplace. At PSA, we understand that our employees are the driving force behind our success, and safeguarding their safety and wellbeing is the top priority in all that we do.

Why It Is Important

Upholding occupational health and safety has material impacts on our most important asset – our people. Fostering a work environment that is physically and mentally safe fosters positive impacts such as allowing our employees to feel supported, which in turn, boosts employee morale and overall performance. Diligently safeguarding our employees and instilling a strong safety culture also aids better identification and management of actual and potential negative impacts arising from hazards within the working environment.

Our Approach

Given the context of our business and operations, segments of our employees can, at times, be exposed to potentially hazardous situations, such as operating heavy machinery and handling cargo. We take a comprehensive approach to uphold best practices to ensure the health and safety of our employees. To that end, we employ various measures to monitor and address health and safety issues in the workplace, including implementing a health, safety and security management system, facilitating incident reporting, and gathering feedback from our employees. These initiatives help foster a culture of safety awareness at PSA.

PSA Group Health, Safety, Security and Sustainability (HSSS) Policy

At the heart of PSA lies a strong, unwavering commitment to provide our people with a safe, secure and healthy workplace, and to promote sustainable development in the communities we operate in.

As an industry leader, we will continually upgrade our HSSS practices and performance to be an exemplary corporate partner on HSSS matters.

Health, Safety and Security Management System (HSS MS)

PSA upholds strict health and safety standards that adhere to prevailing international guidelines as well as relevant laws and regulations in the regions where we operate. This is accomplished through the PSA Group HSS Management System (HSS MS). Established by our Group Health, Safety and Security (GHSS) department, the HSS MS ensures that health and safety practices are implemented and enforced across our operations.

PSA commissioned an independent third-party auditor to assess and ensure that the HSS MS remains relevant and aligned to international standards such as the ISO 45001:2018. In addition, another auditing company was engaged to ensure the rollout and implementation process of the HSS MS continues to be effective. After rigorous reviews and checks, the HSS MS was certified to be fit for





purpose and aligned to the ISO 45001:2018 standard, and the implementation of system rollouts was deemed robust. Continuous improvements are identified and updated to the Board for further steer.

At PSA, all business units involved in hazardous work are mandated to implement the HSS MS, with GHSS conducting regular audits to ensure compliance. The HSS MS covers all employees and contractors who work in these business units. Following audits, the business units receive reports and are given approximately six months to address any identified gaps. In 2023, the audit framework was further enhanced, whereby terminals are prioritised for audits based on their safety risk profiles, enabling a more systematic and timely approach to safety performance review. Each business unit has a governance structure to oversee HSS MS implementation, with relevant groups tasked with monitoring and improving health and safety performance. All safety performance data is reported biannually to PSA's Senior Management Council and reviewed quarterly at Board meetings. The Group CEO personally conducts reviews on all significant incidents – safety incidents resulting in fatalities or permanent disabilities, reflecting the tone from the top.

For operations where the HSS MS is not implemented, the appropriate feedback channels and control measures have been put in place to ensure employee health and safety.

Complementing the HSS MS is the PSA Group's HSSS Policy. Upon joining PSA, all employees receive communication regarding the policy during their induction. Additionally, all business units are mandated to prominently display the policy within their premises to ensure ongoing reminders.

Besides prioritising the wellbeing of our employees, we also ensure the health and safety of suppliers and contractors working on our premises. During the bidding process, PSA evaluates contractors' safety performance and risk management capabilities. Once awarded the contract, contractors must assess and mitigate identified health, safety, and security risks and provide their employees with relevant training. Furthermore, we conduct HSS induction programs for contractors before they commence work with PSA, followed by continuous monitoring and assessment of their HSS performance.

Hazard Identification and Risk Assessment

Effective hazard identification and risk assessment are pivotal in workplace risk management. Within the HSS MS, business units are mandated to pinpoint location-specific hazards and risks inherent to their operations. Following systematic hazard identification, risks associated with these hazards are evaluated and controlled using our Hazards & Effects Management Process (HEMP). HEMP is also deployed in response to safety incidents or whenever there are significant changes to local regulatory circumstances or business unit operations.

To reduce the occurrence of incidents, business units conduct regular HSS inspections and review work practices for adherence to health and safety protocols. Any instances of non-compliance are followed by preventive and corrective actions, overseen by designated personnel who ensure closure on mitigating measures. Upholding the precautionary principle, PSA closely assesses health and safety risks to ensure full compliance with safety standards before commencing operations.

Incident Reporting and Investigation

At PSA, all personnel, including contractors, are required to report incidents to their respective supervisors. Moreover, employees are urged to report unsafe behaviours, hazardous situations, or any other safety concerns. We have made available multiple channels, including direct reports to managers, safety leaders and an online platform, to facilitate incident reporting. PSA ensures that all personnel can report on incidents and hazards without fear of reprisal. We believe that this fosters an environment where employees are empowered to halt work and remove themselves from potentially harmful situations.

We employ a systematic approach to log all incidents into an online platform, and data from this platform is further utilised to report and monitor safety statistics, including monthly employee and contractor exposure hours. In 2023, we introduced a comprehensive set of leading and process indicators covering areas such as Trained & Experienced Workers, Safety Inspections & Violations, Near-misses & Incident Reporting, System and Processes, and Safe Infrastructure. Business units must monitor and report on these indicators monthly. This set of indicators enables timely and targeted responses to any deviations from threshold numbers.

Once a significant incident report is received, the business unit must conduct a comprehensive investigation and analysis. This process begins with a preliminary investigation, followed by the utilisation of root cause analysis tools and risk assessment matrices to categorise the incident. Following this, a final investigation and incident review meeting, including with the Group CEO, is conducted. The outcome of this process yields a set of actionable learning points aimed at enhancing workplace safety protocols. Safety personnel are directly engaged throughout this process and input from relevant employees and contractors ensures the effectiveness of measures to mitigate future incidents. For example, a Group-wide Safe

Yard Operations Plan was developed and rolled out in 2022 in response to the numerous prime mover-related incidents which took place in the same year. This plan was instrumental in consolidating insights and actionable measures for deployment by all business units.

PROCESS UNDERTAKEN FOR INVESTIGATING INCIDENTS



Building a Culture of Safety

Ensuring employees possess essential safety awareness and knowledge of workplace hazards is paramount to preventing injuries. To facilitate this, we employ various communication methods:



Daily toolbox briefings



Notices via bulletin boards and employee communication apps



Email reminders



Safety review meetings



Safety training sessions and safety quizzes

Fostering a culture of open communication regarding safety concerns is essential to ensuring safety remains a top priority across all business levels. Employees, being the primary stakeholders with hands-on operational experience and the highest likelihood of encountering hazards, are actively involved in safety discussions. Multiple channels are provided for employees and contracted staff to report incidents and provide feedback on health and safety initiatives, which then informs role assignments, identifies training needs, and guides workplace risk assessments.

Employees are encouraged to participate in risk assessment teams and safety committees, which are essential components of each business unit's health and safety initiatives. Comprising representatives from management, employees and labour unions, these committees harness diverse perspectives to address workplace challenges effectively. They convene regularly to review incidents, discuss alignment to local regulations and take follow-up actions from reports and inspections.

Communications on Health and Safety Information

Every year, the first major event taking place is the annual PSA Safety Week, which is launched with safety-focused messages from our Group CEO and PSA leaders. Globally, we implement Group-wide programs like Understanding Your Culture (UYC), Starfish workplace safety workshops, and the Take 5 self-awareness program to engender a culture of safety. To reinforce safety messages, business units also implement campaigns suited to their local context. For example, PSA Antwerp, MSC PSA European Terminal (MPET) and Antwerp Terminal Services (ATS) have been conducting their "Doe het Tegoei" or "Do It Right" campaign among employees. Employing a variety of approaches including management briefings, dedicated coaching for drivers, distribution of flyers and simulators, these help to elevate the safety culture at the terminals.

Additionally, to equip employees with safe work practices, we provide technical skills training for activities such as port driving and handling dangerous cargo. Basic first aid and emergency response training are also provided to enable prompt responses to safety incidents. In addition, through PSA BDP University, we administer a thorough training regimen for employees, focusing on the safe handling and compliance protocols for various goods, with particular emphasis on chemicals.

Beyond physical workplace safety, PSA is dedicated to safeguarding the holistic wellbeing of our workforce. We believe that each business unit plays a pivotal role in nurturing a supportive workplace, offering access to educational resources and fostering open dialogue. Occupational health services are available, such as a manned para-counselling helpline as well as access to professional assistance through external referrals to medical institutions and psychotherapy treatment via the Employee Assistance Program.

Targeted initiatives and programs have also been implemented based on the specific needs of our workforce. For instance, PSA Singapore offered various health and wellness programs throughout 2023, including physical and mental health talks, fitness workout sessions, mental wellness workshops, as well as customised health screening and coaching programs. The PSA SG Health Roadshow 2023, featuring educational and interactive game booths, health screenings and other activities, was a successful event promoting healthy longevity and educating participants on managing chronic diseases and mental wellbeing. In addition, peer support training was designed to provide employees with the necessary skills to assist their colleagues in dealing with stress and everyday difficulties. Frontline departments will assign Caretree Mentors to attend this one-day training at PSAU's Singapore campus, while non-frontline departments will appoint Peer Support Leaders. At PSA Belgium, business units have established the Committee for Prevention & Protection at Work (CPBW) to manage the psychosocial load arising from work, with elected employee representatives, in compliance with Belgian legal requirements. PSA Belgium also leverages the MyMindScan digital tool to monitor the mental health evolution of employees and teams. Employees receive four hours of internal coaching annually upon request and can access mental wellness resources on the PSA Belgium HR platform.

These initiatives aim to destigmatise mental health conversations, empowering employees to take charge of their holistic wellbeing while offering appropriate support to peers. Feedback for these holistic wellbeing initiatives is solicited through the same channels used for health and safety matters.

Safety Performance and Progress

In 2023, PSA recorded 130.9 million hours worked, of which 66.2 million hours are from employees and 64.7 million hours are from contractors.

In 2023, PSA recorded seven significant incidents, with five resulting in fatalities amongst employees, contractors and third-party workers working within PSA premises. These incidents included three contractor fatalities, attributed to driving incidents and collisions against objects. Two employee fatalities occurred during the provision of tugboat and cargo discharging services.

As for the safety incidents resulting in permanent disability, these occurred to an employee and a third-party worker while they were operating trucks and working onboard a vessel respectively.

PSA renders the necessary support to aid the families affected during this difficult time. While we found that a significant number of these incidents could have been prevented with stricter adherence to the Safe Work Procedures, we recognise that workers may face challenges or pressures that impact their ability to consistently follow these procedures. As such, addressing these factors with understanding and support can contribute to a safer work environment.

Our Lost-Time Injuries Frequency Rate (LTIFR) in 2023 was 2.96 as compared to 2022's figure of 2.93. This is due to an increase in the number of lost-time injuries reported in 2023.

PSA continues to uphold the target of zero significant incidents. Any loss of life or injury is unacceptable and profoundly painful. We commit to thoroughly investigating every incident and implementing necessary measures to prevent reoccurrences in the future.

Health and Safety Performance in 2023

	FATALITIES		SAFETY INCIDENTS RESULTING IN PERMANENT DISABILITY		RECORDABLE WORK-RELATED INJURIES	
	Number	Rate	Number	Rate	Number	Rate
EMPLOYEES	2	0.03	1	0.015	140	2.11
CONTRACTORS	3	0.05	0	N.A.	248	3.83
THIRD-PARTY	0	N.A.	1	N.A.	N.A.	N.A.

Note: Rate is calculated by No. of incidents/No. of hours worked x [1,000,000]



Per million hours worked by employees and contractors

Protecting Our People

EMPLOYEE DIVERSITY AND INCLUSION

GRI 3-3, 405-1

At PSA, we embrace diversity and inclusion and firmly believe that long-term success hinges on fostering a progressive and inclusive culture where all employees are valued and diversity is celebrated.

Why It Is Important

PSA's services form a vital network for international trade, connecting businesses and people from all corners of the globe. Our approach to diversity and inclusion reflects the diversity of the global communities we serve. We actively embrace differences across individuals, valuing opinions, perspectives and experiences.

We aim to create a positive impact not only through a fair workplace free from discrimination, but to offer our employees the most conducive work environment to optimise performance. We nurture innovation through adopting an inclusive hiring approach and tapping into diversity of our employees. This will in turn increase employee engagement, enhance reputation, and reduce turnover for the organisation as a whole.

PSA's Group Human Resource department, in collaboration with other relevant units, oversees the implementation and enforcement of policies governing diversity and inclusion.

To ensure fair workplace conditions, multiple mechanisms including a whistle blowing hotline and mailbox are accessible to employees to report incidents of intimidation, discrimination or harassment without fear of reprisal and victimisation. For more information on PSA's Whistle Blowing policy and procedure, see [page 72](#).

Our Approach

Creating an Equitable and Inclusive Work Environment

PSA maintains a strict zero-tolerance policy towards all forms of discrimination and harassment regardless of race, gender, religion, age, disability, family status, sexual orientation, pregnancy, or any other attribute. The PSA Code of Business Ethics and Conduct (The Code) lays out the principles and guidelines that management and all employees must adhere to.



Diversity in Our Workforce

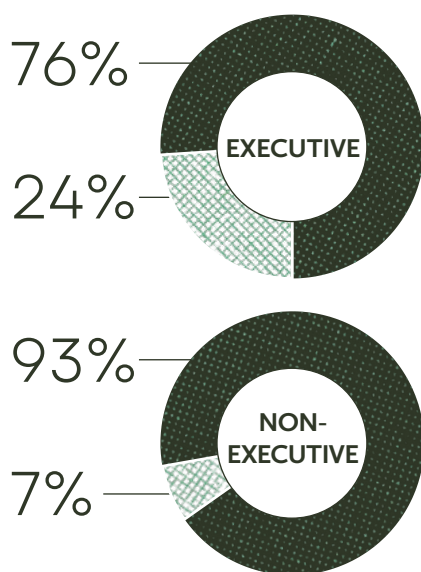
PSA is committed to promoting a balanced and diverse workforce with a wide range of backgrounds, races, cultures, genders, ages and religions across all levels. We believe in enforcing the principle of meritocracy, beginning from hiring and talent attraction, to managing the current workforce where all employees have access to equal opportunities to develop and progress in their careers. PSA's forward-looking and global approach helps maintain our position as an employer of choice in talent attraction and enables us to remain at the forefront of our industry.

While the ports and logistics industry has traditionally been predominantly male-dominated, PSA recognises the need to promote a gender-balanced composition. Starting at the Board and Senior Management levels, and across the business units, PSA will continue to promote gender equality throughout the organisation. We seek to reduce potential structural barriers in workforce participation by leveraging on innovations through automation and digitalisation and embracing the flexibility of work arrangements. As of 2023, the PSAI Board consists of 73% male and 27% female, with all members being over 50 years of age.

Across our operations, we strive to promote gender diversity and cultivate a culture of equal opportunities through ongoing initiatives. Across the organisation, we track and report our employee profiles by gender and age group.

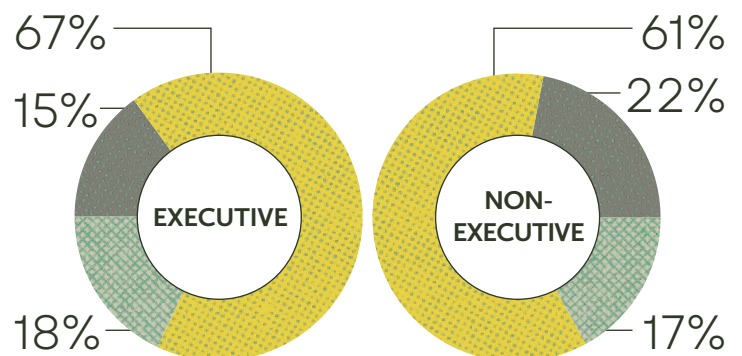
Diversity Profile of Our Workforce

Employees by gender in 2023



MALE FEMALE

Employees by age group in 2023



UNDER 30 YEARS OLD 30-50 YEARS OLD OVER 50 YEARS OLD

Note: This only includes direct hires

PSA BDP'S COMMITMENT TO FOSTERING A DIVERSE, EQUITABLE AND INCLUSIVE WORK ENVIRONMENT

Across its global offices, PSA BDP has put in place policies and processes to enable recruitment and retention of a diverse set of employees, as well as ensure a workplace environment that is inclusive for all. A Diversity, Equity and Inclusion (DEI) strategy which focuses on an authentic, employee-led approach has been implemented, with the following engagement efforts:

- Quarterly sessions with PSA BDP's DEI Steering Committee to update on progress
- Quarterly updates to leadership and leadership involvement to amplify messages on DEI initiatives
- Monthly strategy team alignment
- Monthly regional council meetings to track progress on DEI initiatives

PSA BDP also conducted a DEI survey called Diversity Atlas to provide a snapshot of the business unit from a diversity mapping standpoint. 70% of PSA BDP employees completed the survey. In 2023, in addition to the foundational DEI council in North America, PSA BDP also launched three DEI councils in Europe, the Middle East, Turkey, and Africa (META), and Latin America (LATAM). The process of forming the APAC council is ongoing.

LABOUR RELATIONS AND WORKER WELLBEING

GRI 3-3, 2-30, 401-2, 402-1

Prioritising the safety and interests of our employees is integral to the continuity of daily operations and long-term business success. We respect and uphold our employees' rights and foster an environment where they can excel.

Why It Is Important

The labour-intensive nature of the ports and supply chain industry requires the collective efforts of our workers globally to ensure operations run smoothly without disruptions. Beyond safeguarding the physical safety of our employees to minimise harm, fostering a conducive work environment through meaningfully engaging with and providing for our employees allows PSA to grow as an organisation with strong labour relations and an empowered workforce.

Our Approach

Alongside Our Unions

At PSA, we believe in building strong relationships with labour unions as they play a key role in cultivating a culture of open communication, mutual respect, and trust with and amongst our workers. This approach is enshrined within the PSA Code of Business Ethics and Conduct (The Code), which provides guidance to how we ought to uphold workers' rights and protect their interests.

Through regular dialogues with labour unions, we solicit honest and direct feedback that allows PSA to effectively address workplace issues, secure our employees' rights and ensure their wellbeing. Issues discussed during sessions include benefits, health and safety, training, restructuring of job roles, and operational changes.

At our flagship terminals in Singapore and Belgium, we continue to maintain an effective, high-performing and engaged workforce through close collaboration and cooperation with the unions. In Singapore, we partner with the Singapore Port Workers Union (SPWU) and the Port Officers' Union (POU) to implement initiatives and targeted programs to steer career development and to build a future-ready workforce. Discussions and get-togethers with PSA senior management are also held regularly to keep union leaders abreast of the business outlook, future developments and strengthen the 'X-factor' between unions and management.



Over in Belgium, the trade unions play an important role in representing workers' interests and wellbeing. The unions are involved through various consultative bodies, both at the sectoral and company levels, to represent the interests of workers and promote dialogue between the partners on various topics including health, safety, wellbeing, training, and employment.

When significant operational changes are proposed, local HR representatives will initiate timely discussions with employees and unions and give as much advance notice as possible. We value and prioritise constructive feedback from the unions and employees and work to actively propose solutions to address concerns and resolve pertinent issues highlighted by our workers.

Where significant operational and business changes could substantially affect our employees, we ensure that we provide minimum notice period to our employees, guided by the labour agreements and labour laws. At the global level, PSA actively engages with the International Transport Workers' Federation (ITF) to align our continuous efforts to protect and improve our workers' lives and futures.

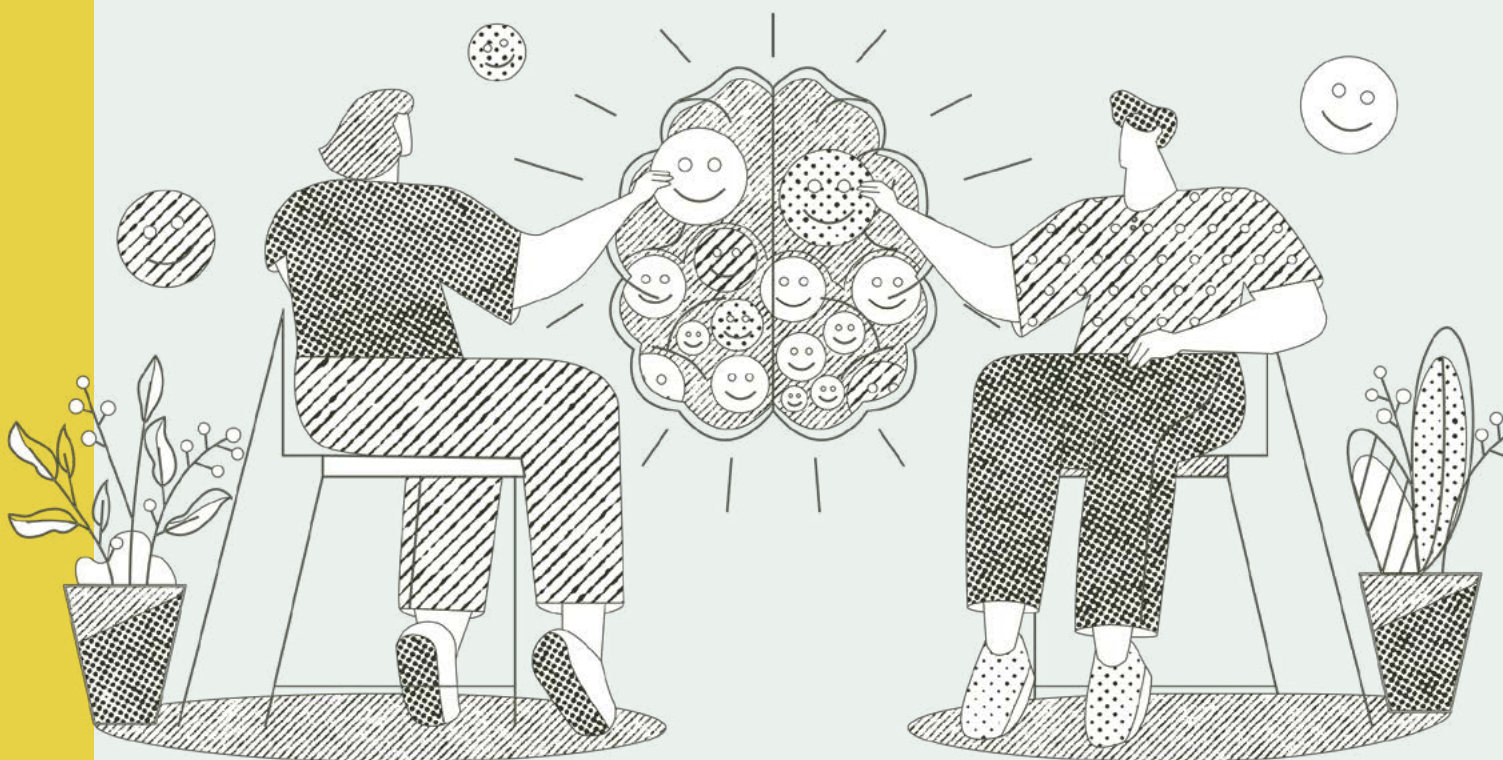
Supporting Our Employees' Physical and Mental Wellbeing

As an employer of choice, we offer a comprehensive and attractive compensation package, including competitive wages and benefits for our employees. We accord benefits to eligible employees based on local laws and practices. Most employees are covered under the company's health insurance plan albeit some variance due to differing countries of operations. Certain business units also subsidise medical consultation or health services at appointed clinics and health centres.

Caring for our employees goes beyond the provision of basic medical care. We are dedicated to promoting employee wellbeing through health initiatives that minimise occupational health hazards, talks addressing health awareness and smoking cessation, nutritionist consultations, and gym access. With mental wellbeing arising as a key focus, we seek to also roll out initiatives and provide resources to support our employees on this front.

Collective Bargaining Agreements

PSA supports our employees' right to exercise their freedom of association and collective bargaining. 67% of total employees are currently covered by collective bargaining agreements based on local laws, relevant regulations and best practices. Where segments of employees are not covered by a formal collective bargaining agreement, working conditions are based on the collective bargaining agreements that cover the majority of the workforce as well as prevailing market practices.



Supporting Our Communities

COMMUNITY RELATIONS

GRI 3-3

Building robust relationships with communities enhances the sustainability and resilience of our operations.

Why It Is Important

Businesses can play an important role in uplifting communities where they operate, either through community engagement programs or through creating economic opportunities. At PSA, we understand the importance of community relations and strive to build strong relationships that maintain our social license to operate. Taking an approach of cultivating trust and garnering support by providing ongoing engagement and being responsive to community needs, we seek meaningful collaborations and investments in community development for shared prosperity and wellbeing.

At the Group and business unit levels, PSA tailors community engagement and corporate social responsibility (CSR) initiatives to address diverse stakeholder needs. Centred on the following three key pillars, these efforts encompass fundraising for various social causes, community development projects, and educational programs aimed at uplifting local capabilities.

Employee volunteerism has been pivotal in our community initiatives, demonstrating the shared commitment of our leaders and staff to uplift and empower the communities we serve. In 2023, PSA employees across business units continued to be actively involved in various community initiatives.





Community Development



FOSTERING VOLUNTEERISM AND COMMUNITY ENGAGEMENT

Launched in 2015, PSA's Health@Home (H@H) program promotes volunteerism among its Singapore-based staff, with monthly volunteering activities expanded through collaborations with stakeholders and industry partners. In 2023, the National Volunteer & Philanthropic Centre (NVPC) highlighted PSA's efforts, showcasing the H@H program as an exemplar for other companies in the corporate purpose sphere. Moreover, PSA received the Friends of Community Care (FOCC) award from the Agency for Integrated Care (AIC) in 2023, affirming our commitment to supporting the community and empowering seniors. Through partnerships with NVPC and AIC, PSA's H@H program continues to make significant strides in the CSR community, emphasising PSA's dedication to creating value beyond volunteering.

Collaborating with industry partners, PSA worked to expand our "Doing Good" movement. In 2023, we held activities involving the packing and distributing of food to senior beneficiaries from the Thye Hua Kwan Moral Charities Active Ageing Centre, as well as celebrating Christmas with beneficiaries from HCA Hospice. During the annual PSA Golf Invitational, PSA staff and partners raised SGD 70,000 for Stroke Support Station - S3, supporting stroke survivors and caregivers in their recovery journey.



UNITING EFFORTS FOR TÜRKIYE EARTHQUAKE VICTIMS

In response to the devastating earthquakes that struck Türkiye in February 2023, various PSA business units rallied together to provide much-needed support to the affected communities.

Mersin International Port (MIP) swiftly mobilised aid efforts, offering construction machinery, essential supplies, and prioritising transport for relief materials to the affected regions. Colleagues from PSA business units across Europe, the Mediterranean, and the Americas demonstrated solidarity, organising bake sales and fundraisers that collectively raised USD 99,000 for earthquake relief efforts. PSA Panama International Terminal (PPIT) sold snacks and sweets, alongside setting up donation boxes to aid those who lost their belongings and homes. PSA Sines also played a vital role, raising funds and gathering supplies to aid Türkiye earthquake victims. Notably, one PSA Sines employee actively participated in rescue operations and successfully saved a woman trapped in the rubble.

Additionally, PSA BDP Cares made significant contributions, collectively donating more than USD 90,000 to relief efforts in both Türkiye and Morocco.



NOURISHING COMMUNITIES

Throughout 2023, PSA demonstrated its commitment to supporting communities in need through various initiatives. Ashcroft Terminal (ATL) organised six iterations of "Soups On Events", providing meals and companionship to those in need, as well as contributing more than CAD 3,000 to the cause. PSA Halifax contributed CAD 27,000 towards the Hope Cottage and Brunswick Street mission to provide meals for individuals in Halifax facing food insecurity, as well as towards the Mission to Seafarers – which supports seafarers visiting the Port of Halifax. Saudi Global Ports (SGP) partnered with the Saudi Food Bank, donating SAR 100,000 and engaging in volunteering sessions to pack food boxes and bags of fruits and vegetables for families in need during Ramadan and the Hajj season.



Arts, Education, Sports and Culture

PROMOTING ACCESS TO EDUCATION THROUGH SCHOLARSHIPS

PSA Singapore remains committed to supporting Singaporean students from lower-income households through the Howe Yoon Chong (HYC) PSA scholarship, with 37 scholarships awarded in 2023, totalling 381 beneficiaries since the program's inception in 2008.

Meanwhile, through International Trade Logistics (ITL), PSA contributes monthly donations to the Buenos Aires Municipal Government, financing scholarships and trainings programs to prepare vulnerable youth for employment opportunities.



SUPPORTING CULTURAL ENRICHMENT IN SINES

In January 2023, PSA Sines provided support to the Litoral em Cena theatre company, which stages performances in key municipalities of the Sines region year-round, fostering cultural enrichment in smaller communities across the country.

NURTURING SINGAPORE'S ART SCENE

Through our sponsorship of the Wild Rice theatre group, PSA demonstrates a commitment to preserving and promoting the local arts scene in Singapore. This support has enabled Wild Rice to sustain its theatrical productions, providing employment opportunities for over 800 freelance arts workers amidst the challenges posed by COVID-19. PSA's dedication to the arts was acknowledged by the Singapore National Arts Council, honouring PSA as a Friend of the Arts at the Patron of the Arts Awards 2023, which celebrates contributions made by organisations to the development of Singapore's arts landscape.

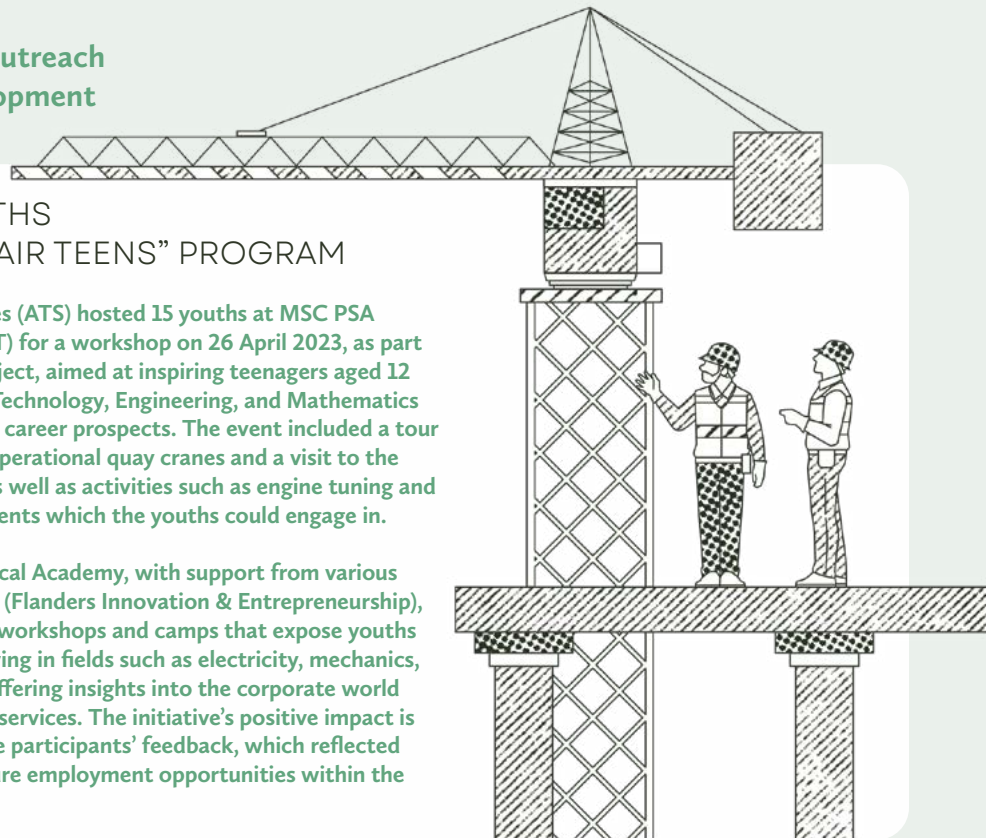


Industry Outreach and Development

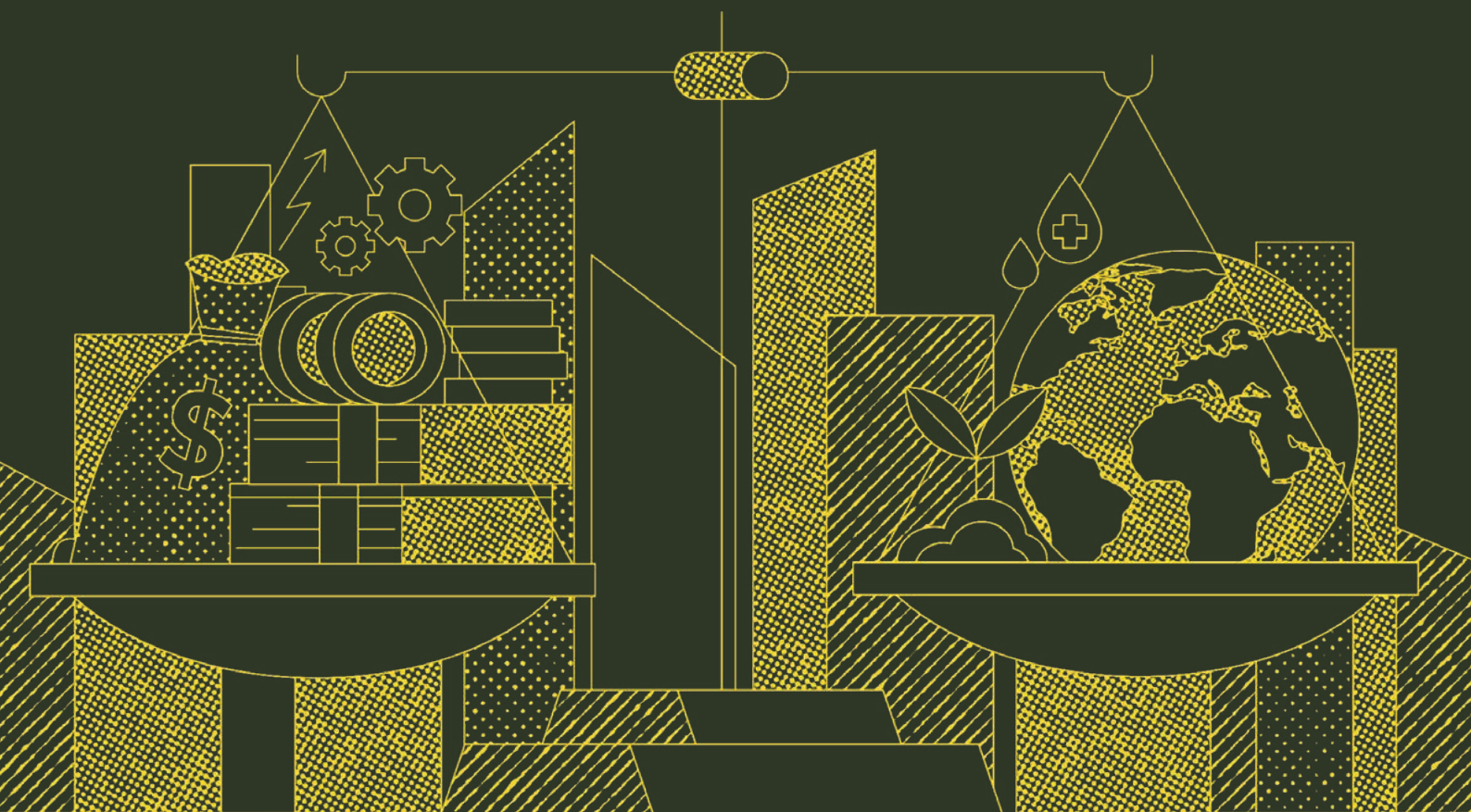
INSPIRING YOUTHS THROUGH "REPAIR TEENS" PROGRAM

Antwerp Terminal Services (ATS) hosted 15 youths at MSC PSA European Terminal (MPET) for a workshop on 26 April 2023, as part of the "Repair Teens" project, aimed at inspiring teenagers aged 12 to 14 to pursue Science, Technology, Engineering, and Mathematics (STEM) studies for future career prospects. The event included a tour of the quay showcasing operational quay cranes and a visit to the straddle carrier garage, as well as activities such as engine tuning and resistance box measurements which the youths could engage in.

Established by the Technical Academy, with support from various partners including VLAIO (Flanders Innovation & Entrepreneurship), "Repair Teens" organises workshops and camps that expose youths to technical problem-solving in fields such as electricity, mechanics, and programming, thus offering insights into the corporate world and its technical support services. The initiative's positive impact is further exemplified by the participants' feedback, which reflected their keen interest in future employment opportunities within the port industry.



GOVERNANCE AND ECONOMIC



IN THIS SECTION

Transforming Supply Chains

Optimisation of
Global Supply Chains

Innovation and
Technology

Acting With Integrity

Ethical Business
Conduct

Sustainable
Procurement

Ensuring Responsible Operations

Sustainable Port
Development

Keeping Our Operations Safe and Secure

Port Security

Cybersecurity and
Data Privacy

Transforming Supply Chains

OPTIMISATION OF GLOBAL SUPPLY CHAINS

GRI 3-3

PSA strives to create more sustainable, efficient, and optimised global supply chains. Leveraging our position as a global port operator and supply chain provider, we seek to drive collaboration with our partners towards sustainable innovation and transformation within the industry.

Why It Is Important

Emissions arising from international trade through global supply chains can be substantial. Leveraging our global network of ports, reinforced by our port adjacencies and differentiated supply chain solutions, PSA seeks to curb emissions by making supply chains more efficient, catalysing ecosystem change to enable sustainable trade. By increasing efficiencies through our own operations and helping our partners and customers develop sustainable supply chain solutions, we seek to create positive impact and contribute to lowering emissions.

Our Approach

Through collaboration with partners, we strive to develop and co-create multi-modal solutions to be more integrated, transparent, and sustainable.

We leverage on innovation, digitalisation, and our extensive network of supply chain partners and infrastructure assets to design and deliver efficient and optimised freight and transport routes. We also focus on developing digital applications for visible supply chain monitoring and intervention.

By end 2024, we aim to execute 10 projects that provide sustainable logistics and transport solutions impacting at least 3,000 TEUs of cargo volume per project.

In 2023, we implemented

six projects,

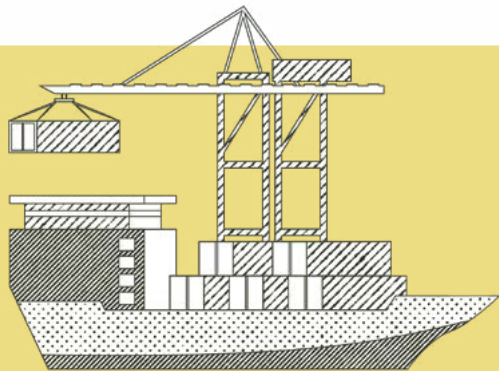
impacting more than

277,000
TEUs in total.



Enabling Efficient and Sustainable Supply Chains

We continue to invest in enhancing our digital and data capabilities to improve the operational efficiency of shipping and to develop integrated platforms to enhance the transparency and reliability of our solutions to better serve the needs of our customers and our partners.



Enhancing Operational Efficiency for the Shipping Industry Through Data Sharing

PSA Singapore's OptEVoyage digital solution enables just-in-time vessel arrivals at our terminals. Facilitated by real-time activity synchronisation on vessel locations and berth availability, OptEVoyage allows 24/7 ship-to-port data exchange which allows liners to adjust sailing speeds, in turn resulting in significant bunker and carbon emissions savings.

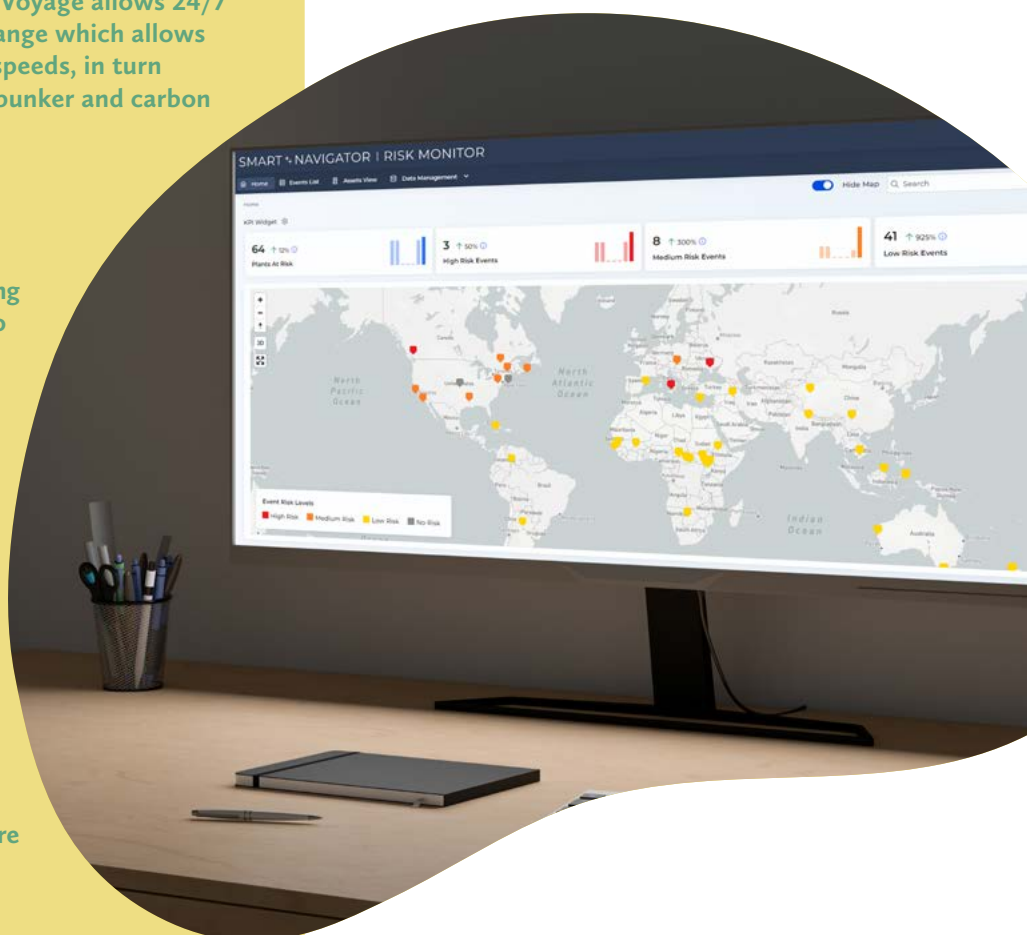
A joint study has also demonstrated that OptEVoyage can enable most vessels approaching the port of Singapore to have less variability in speed profiles, with the potential to reduce their fuel consumption and carbon emissions by up to 7%.

In 2023, OptEVoyage witnessed substantial growth, doubling to six liners on board, with Pacific International Lines (PIL) being the latest liner to sign up to the program. Presently, there are close to 90 services under this initiative.

PSA is a founding member of the Global Shipping Business Network (GSBN), a not-for-profit organisation that manages a secure and trusted data exchange platform to power global shipping trade. In 2023, GSBN was awarded "Best in Future of Industry Ecosystems" at the IDC Future Enterprise Awards for Hong Kong. The award acknowledges GSBN's commitment towards efficient digital trade and fraud risk management, while making transportation safer and more sustainable.

SGTraDex, which includes PSA as a founding member, focuses on the adoption of digital solutions and fosters data connectivity within the maritime and logistics ecosystem. In July 2023, PSA, via SGTraDex, reaffirmed our partnership in an MOU on Digital Collaboration for Logistics Innovation. The MOU aims to create a standardised and inter-connected supply chain digital ecosystem through joint development of industry tools and applications, for increased visibility and traceability of trade flows.

PSA BDP's Smart Navigator and Smart Classify platforms provide real-time tracking and support of trade management, while the Risk Monitor platform seeks to detect and manage disruptions in the transportation of goods and services. BridgeNet Solutions, a subsidiary under PSA BDP, develops products and services improving end-to-end supply chain visibility, as well as providing insights into emissions data.



Greening Our Services Through Sustainable Intermodal Offerings

PSA continues to sharpen our delivery edge through innovative port adjacencies, by expanding our intermodal transport offerings, providing optimised routing over air, ocean, road, and rail which enables our partners to save costs and contribute to their sustainable efforts to reduce emissions.

PSA BDP, in conjunction with PSA Italy, conducted PSA's first movement of a reefer container by train in Europe for a major pharmaceutical customer. The new solution is powered by PSA Italy's Southern Express rail service between Basel, Switzerland, and the Port of Genoa, Italy. By switching from road to rail, this enables shippers to significantly reduce their carbon footprint. PSA seeks to expand this offering via the Southern Express rail service and other networks to help our customers design more sustainable routing options to reduce their emissions.

Eastern Sea Laem Chabang Terminal (ESCO), together with JWD Transport Services (JTS), are pioneering sustainable supply chain solutions in Thailand with the launch of the Green Transport Lane service. As a dedicated Electric Vehicle (EV) trucking route between Laem Chabang seaport and Lat Krabang Dryport, the Green Transport Lane service is the first of its kind in Thailand and offers not only first mile and last mile services, but also sustainable solutions for beneficial cargo owners as it reduces carbon emissions in comparison to the current conventional diesel trucking.

In India, PSA BDP collaborated with Dow India to create a zero emissions transport corridor in Nhava Sheva with the deployment of electric trucks. The trucks will be powered by PSA Mumbai's Open Access Solar Plant, making available a zero emissions transportation solution that is the first of its kind in the Indian market, delivering greater optionality and connectivity for customers seeking more sustainable solutions.

Integration and Collaboration Through Industry-Wide Cooperation

At PSA, we believe collective action with our partners and wider international associations and forums can serve as a catalyst to the development and proliferation of efficient and sustainable solutions.

PSA engages the international community through relevant forums and associations in the ports and supply chain industry. In 2023, PSA hosted the World Economic Forum (WEF) Supply Chain and Transport (SCT) Governors Meeting in Singapore, actively engaging with industry leaders to advocate meaningful change in the areas of energy transition, and to advance the role of the global port ecosystem and digital technologies to drive more resilient and sustainable supply chain solutions. In addition, we endorsed the Global Maritime Forum's commitment to adopt vessel optimisation strategies and formalised our support by signing an ambition statement for collective action. This collective agreement seeks to improve the operational efficiency of vessels and bring operational efficiency to the forefront of the sustainable shipping agenda.

In support of the clean energy transition, PSA continues to partner with other industry leaders through green corridors, coalitions, and alliances. In 2023, PSA Singapore joined Singapore's Ministry of Transport (MOT) and Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) as a port partner to establish the Singapore-Japan Green and Digital Shipping Corridor.

During the Global Sustainable Transport Forum held in Beijing in September 2023, the Global Sustainable Transport Innovation Alliance (GSTIA) was announced with PSA being one of 42 founding members across the land, marine, air transportation sectors from China and globally. The alliance aims to pool together resources within the global transportation industry to promote innovative and sustainable transportation.



INNOVATION AND TECHNOLOGY

GRI 3-3

Innovation and continuous improvement, and our leverage on technology, have been instrumental in PSA's success as a global port operator and leading supply chain solutions provider.

Why It Is Important

PSA actively invests in innovative solutions to drive positive impacts, such as reducing our environmental footprint and supporting decarbonisation goals. We also invest in building our own capabilities and leverage on strategic partnerships with customers, industry associations, governments, startups, venture capitals and other ecosystem players.

Given our position as a global ports and logistics company, PSA has a unique opportunity to spearhead impactful initiatives and set the pace for coordinated actions within the industry. By embracing innovation and green technologies, we aim to drive sustainable growth while reducing reliance on fossil fuels and meeting net zero targets.

Our Approach

Fostering the Attitude of Innovation at Our Core

PSA's vibrant organisational culture inspires creative thinking and provides robust support for innovative ideas. This creates an environment where our employees can freely exchange ideas and take risks to drive breakthroughs.

Guided by INNOVISION@PSA, our innovation vision, we work to embed a culture where our employees "Dare to innovate", "Never stop trying" and "Accept failure as learning". This mindset is integral to PSA's identity as an organisation that consistently prioritises excellence and fosters creativity. Conducted annually, the INNOVISION@PSA survey engages employees to gauge their attitudes toward innovation and evaluates leadership support. This feedback informs the effectiveness of our innovation initiatives and allows business units to benchmark their performance against the global average score.

PSA's approach to innovation is spearheaded by the Innovation for Excellence team at the Corporate Centre and supported by a global network of more than 80 global innovation catalysts across five regions. We are committed to fostering innovation throughout the PSA Group, ensuring that innovation, which is in our corporate DNA, drives sustained business growth in a dynamic global market.



Providing Opportunities for Creativity and Collaboration

One of PSA's key initiatives in driving innovation is iCAN, an online platform which facilitates knowledge exchange between global business units and where top contributors are recognised and rewarded. Since its inception in 2016, iCAN has onboarded over 15,000 members and generated more than 800 ideas.

In addition, PSA holds the annual Kua Hong Pak Innovation Awards (KHPIA), which encourages employees to propose improvement projects either within their business units or in collaboration with other business units. In 2023, we received 682 submissions, marking a significant increase of 24% as compared to 2022. Projects developed across the globe through KHPIA are assessed based on their positive impact on the business or the environment, measured by savings in cost, manpower or carbon emissions.

The PSA's Group Innovation Fund also sets aside USD 1 million annually to support innovative solutions and applications. In 2023, USD 75,000 was disbursed to two projects. One project involved leveraging Artificial Intelligence and Video Analytics for early detection and repair of road infrastructure defects in the terminals. The second project used Augmented Reality technology to streamline the verification process of physical documents such as Certificates of Origin (CoO), replacing manual inspections.

The PSA Global Data Story Challenge held its fourth edition in 2023 under the theme "Infinite Data, Infinite Solutions". The event showcased the numerous ways in which our people can tap on data to drive innovation, solve problems and bring advancements to the business. The winning teams presented innovative solutions to bring about bunker savings, reduce carbon emissions, enhance traffic flow in terminals, among others.

PSA unboXed, our hub for innovation and corporate venture capital, pursues groundbreaking collaborations with various partners to tackle both business imperatives and sustainability goals. The team actively supports PSA's global units by sourcing emerging technologies and facilitating proof-of-concept trials to drive innovation. As part of this, PSA unboXed has partnered with ZEBOX, a global startup accelerator to co-create innovative solutions that will help to reshape our industry. Complementing our technology initiatives, PSA unboXed has also invested in Supply Chain & Logistics and Maritime Funds globally to keep abreast of industry trends and identify promising startups.

PSA recognises the potential of digital technology in empowering our customers to address supply chain challenges proactively with real-time visibility, predictive analytics and agile solutions. PSA BDP launched Risk Monitor, a digital solution designed to monitor risks proactively for shippers and consignees. This tool enables users to anticipate and manage potential disruptions in international trade, thereby enhancing operational efficiency and resilience in dynamic market conditions. Integrated with Smart Navigator, Risk Monitor utilises innovative in-house technologies to deliver timely and pertinent data on supply chain threats that are verifiably substantiated or anticipated by PSA BDP.

PSA employs several processes to monitor the effectiveness of our innovation initiatives. Key metrics such as KHPIA submissions, iCAN participation, PSA Group Innovation Fund deployment, as well as results from the INNOVISION@PSA survey are tracked and communicated at Innovation festivals and webcasts.



DRIVING THE ELECTRIC VEHICLE (EV) SUPPLY CHAIN THROUGH INNOVATION AND COLLABORATION



Partnership with Hyundai Motor Group Innovation Centre in Singapore (HMGICS)

The development of bespoke solutions by the PSA Singapore team has been pivotal in delivering successful outcomes for HMGICS. In this partnership, PSA Singapore assumed the role of Lead Logistics Service Orchestrator for HMGICS' Smart Factory in Singapore. This collaboration marked a significant milestone as the factory is pioneering the manufacture of Singapore-made Electric Vehicles (EVs).

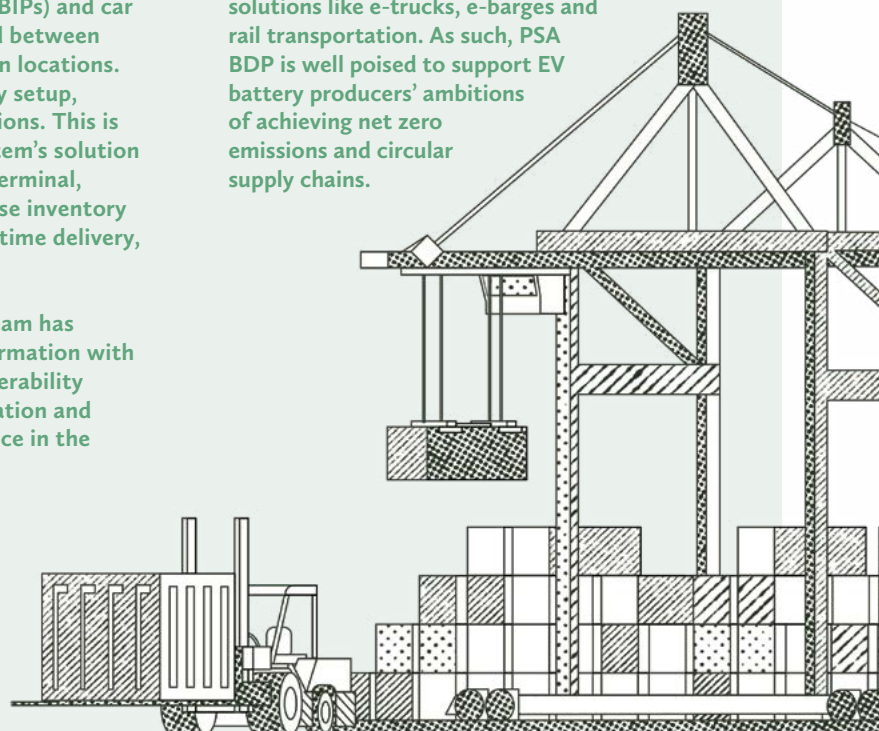
PSA Singapore was able to provide comprehensive solutions for HMGICS' challenges to meet the supply chain requirements for HMGICS. These included leveraging real-time GPS tracking and bespoke trailers such that Bodies-In-Paint (BIPs) and car parts can be efficiently transported between separate warehouse and production locations. This integration mimics a proximity setup, enabling a seamless flow of operations. This is complemented by our Port Ecosystem's solution for scalable virtual storage in the terminal, leveraging data analytics to optimise inventory management and facilitate just-in-time delivery, reducing warehouse space.

Furthermore, the PSA Singapore team has seamlessly integrated delivery information with HMGICS' system, enabling interoperability of systems, and facilitating automation and manufacturing activities taking place in the production plant.



Launch of New Electric Vehicle Battery Warehouse by PSA BDP

PSA BDP celebrated the opening of a new EV battery logistics warehouse in Dunkirk, France. With this highly specialised warehouse, PSA BDP offers contract logistics services to the region's rapidly growing Auto EV cluster. Featuring in-rack sprinklers, temperature and humidity cameras, quarantine containers and water basins, the facility has achieved BREEAM (Building Research Establishment Environmental Assessment Method) certification and meets the highest standards for sustainable EV battery handling. With its proximity to the Port of Dunkirk logistics zone, the warehouse is strategically positioned to enhance connectivity and deploy sustainable solutions like e-trucks, e-barges and rail transportation. As such, PSA BDP is well poised to support EV battery producers' ambitions of achieving net zero emissions and circular supply chains.



Acting With Integrity

ETHICAL BUSINESS CONDUCT

GRI 3-3, 2-23, 2-24, 2-25, 2-26, 2-27, 205-2

PSA upholds the highest standards of ethics and integrity in all our business endeavours. Given PSA's position as a leading global port group, we recognise that PSA can play a key role in collaborating with various stakeholders to uphold the stability of global supply chains while ensuring seamless goods flow.

Why It Is Important

At PSA, integrity is ingrained in our operational ethos; we implement stringent policies and initiatives to eliminate bribery, corruption and fraud both within PSA and throughout our supply chain.

We acknowledge that upholding good business ethics and integrity is fundamental to maintaining a high level of trust while achieving quality, resilient

and sustainable operations. By prioritising ethical conduct, we not only safeguard our reputation but also build trust with stakeholders, facilitating cooperative efforts toward sustainable global supply chains.

Our Approach

Group Policies on Business Ethics

PSA upholds a stringent zero-tolerance policy against corruption, bribery, and fraud, as outlined in our [Code of Business Ethics and Conduct \(The Code\)](#). In 2022, The Code underwent a thorough review and update to ensure alignment with evolving business landscapes, reinforcing our commitment to upholding the highest standards of ethics and integrity. All policies within The Code are reviewed and endorsed by PSA's Senior Management Council for consistency and adherence across PSA.

All employees are required to adhere strictly to The Code, which outlines ethical and professional standards for conduct. Employees who are found in violation of The Code will be disciplined accordingly.

THE
CODE
BUSINESS ETHICS & CONDUCT
2023 UPDATE

The Code is designed to be as comprehensive as possible and addresses various topics integral to our operations, including:

	The ethical foundations upon which our business is built, including our Core Values and Business Principles
	Respectful workplace culture based on responsibility to one another and teamwork
	Ethical behaviour when doing business, including fair and open competition, anti-bribery and corruption, anti-fraud
	Prohibition of conflicts of interest
	Prohibition of improper behaviour or any conduct that would otherwise bring PSA into disrepute, such as money-lending and illegal possession of drugs
	Assurance of a healthy, safe and secure work environment
	Respect for the environment and compliance with all local environmental laws
	Prohibition of discrimination against employees based on race, gender, religion, age, disability, family status, sexual orientation, pregnancy or any other similar attribute or conditions
	Treatment of information and social media
	Relationships with stakeholders
	Whistleblowing

In line with our dedication to ethical business conduct, which includes upholding human rights, PSA BDP has renewed its commitment to the United Nations Global Compact (UNGC) and the Sustainable Development Goals (SDGs), adhering to their principles on human rights, labour, environment and anti-corruption.

The Code also outlines PSA's commitment to providing a work environment that is safe, conducive, and supportive of employees' health and welfare. Upholding safe working conditions safeguards the fundamental human rights of our workforce.

Communication and Training

PSA upholds integrity and ethics as the foundation of its management and business operations by ensuring that all employees understand and adhere to the expected standards of behaviour outlined in The Code. Upon joining PSA, employees are educated on The Code, which is readily accessible and publicly available on [PSA's website](#). Any updates to The Code are promptly communicated via email to all employees. Aligned with the 2022 revisions to The Code, Group HR collaborated with PSA University to provide "The Code Refresher" e-learning program. 31% of employees have received training on anti-corruption in 2023. Additionally, PSA communicates its anti-corruption policies and procedures to all Board Members through Board and Committee meetings. PSA extends this emphasis on integrity and ethics to its relationships with business partners supplying goods and services. Throughout PSA's operations, business partners are expected to adhere to [PSA's Supplier Code of Conduct](#) (SCC). The SCC outlines standards and guidelines for conduct for all suppliers, contractors, service providers and business partners, as well as their subsidiaries, affiliates, subcontractors, and agents. PSA communicates its policies and procedures to these entities by incorporating relevant clauses into contracts and making them accessible on our corporate website for all stakeholders.



OUR COMMITMENT

We conduct our business with the highest standards of ethics and integrity and ensure full compliance with anti-bribery and anti-corruption laws.

Corporate Governance

Embedding business ethics and integrity within PSA's corporate governance framework is essential for responsible decision-making, transparency and accountability across our operations.

The Audit and Risk Committee acts on behalf of the Board to conduct regular reviews of the PSA Group's risks. This includes risks arising from violations of or non-conformance with laws, rules, regulations, internal policies and ethical standards. Meeting at least thrice a year, the Audit & Risk Committee evaluates the effectiveness and sufficiency of risk management controls, processes, and procedures to uphold robust governance.

For more information on our sustainability governance, please refer to [Our Approach to Sustainability](#).

Compliance with Laws and Regulations

PSA remains dedicated to conducting business responsibly such that our operations contribute to sustainable community development. Our commitment entails strict adherence to local laws and regulations, cooperation with authorities, respect for local customs and conscientious consideration of social and environmental factors in all business endeavours. Notably, in 2023, there were no significant* instances of non-compliance with laws and regulations, demonstrating PSA's unwavering commitment to responsible corporate citizenship.

* PSA defines significant instances of non-compliance as cases amounting to more than SGD 1 million.

Mechanisms for Raising and Reporting Concerns

PSA has a Whistle Blowing Policy in place, which enables employees, business partners, and others to report concerns related to compliance with The Code or relevant laws and regulations. The policy is crucial for identifying and addressing grievances, enabling PSA to proactively address issues and mitigate potential negative impacts. The Whistle Blowing Policy condemns various types of misconduct including but not limited to:



Fraud or suspected fraud, thefts and dishonest acts



Profiteering as a result of insider knowledge



Accepting or giving bribes



Intimidation, discrimination or harassment of staff and other persons during the course of work or in the capacity of a PSA employee



Misappropriation of funds



Disclosure of confidential information to outside parties



Conflict of interest in business dealings with external parties

PSA ensures that employees can report any improprieties, grievances and instances of non-compliance without fear of reprisal. To facilitate this, PSA established a channel and structure for whistle blowing that is managed by PSA's Whistle Blowing Unit. Each case is taken seriously, with a commitment to conduct a prompt review and thorough investigation if needed. Serious matters may be escalated to a Review Panel comprising PSA's Group CEO, Group CFO, and Group Head of Human Resource for timely resolution. Various avenues such as the following are available for individuals to raise concerns in good faith:

- The immediate supervisor
- The head of department
- Head, Group Internal Audit
- Group Head of Human Resource
- Audit Committee Chairman or members
- The Board of Directors

Following the resolution of an issue, PSA takes preventive measures and disciplines offenders where appropriate.

For more information on the Whistle Blowing Policy, refer to [The Code](#).



SUSTAINABLE PROCUREMENT

GRI 3-3, 308-1, 414-1

Meaningful progress in sustainability occurs when sustainability practices are extended beyond our immediate operations and to our procurement chain. By prioritising ESG considerations in our supply chain, we can benefit the business, community and the planet.

Why It Is Important

As a global organisation, PSA relies on an extensive array of over 10,000 partners and suppliers to support its operations internationally. We work to positively influence our supply chain by raising expectations for our procurement partners to integrate ESG considerations into their products and services.

Our Approach

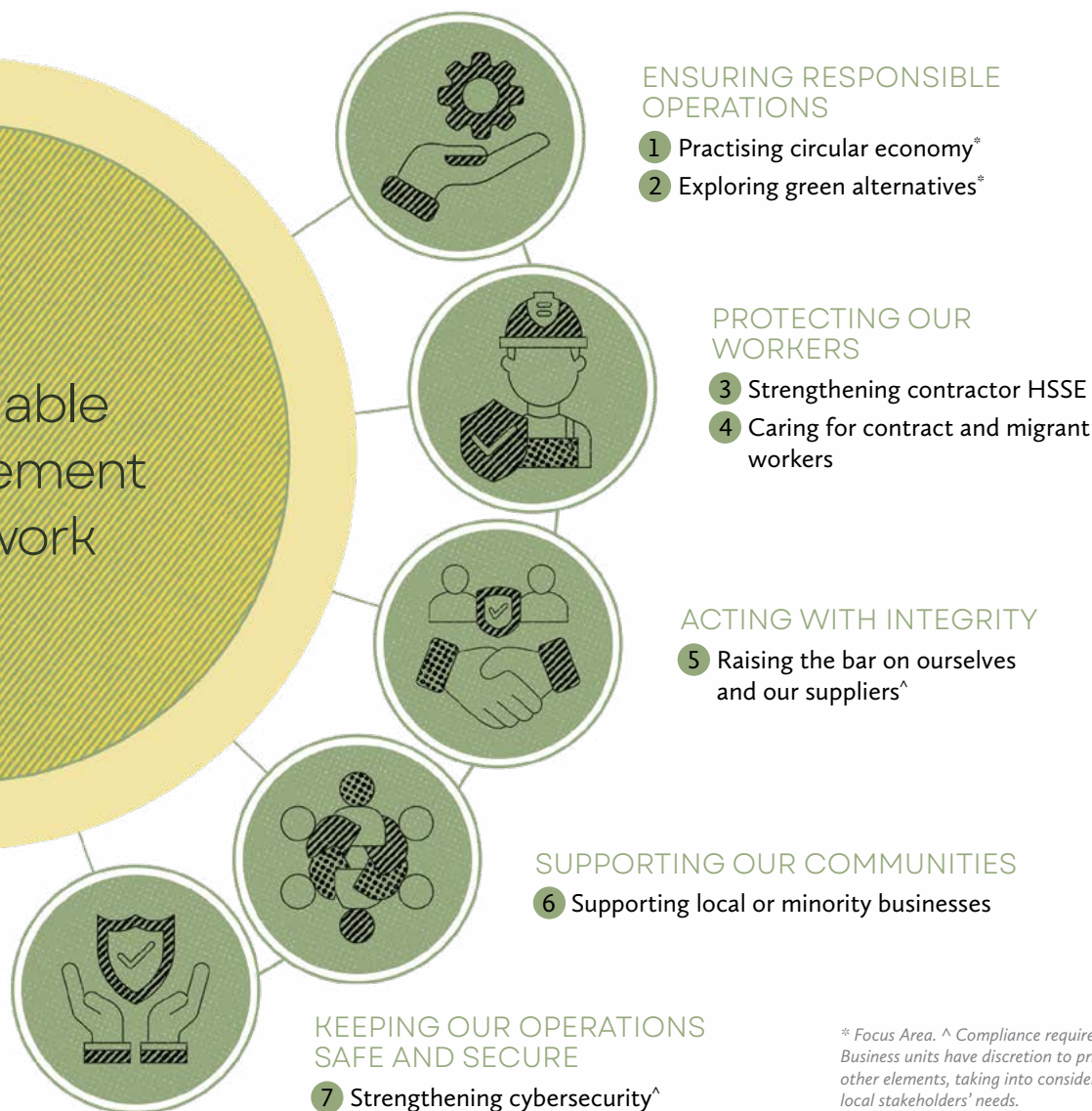
PSA mainly procures within the geographic locations of our business units, leveraging regional and group procurement where necessary, with the majority of expenditures arising from the indirect procurement of goods and services required for our daily operations. Key operating expenditures include energy (fuel and electricity), manpower (labour, logistics, services), maintenance (spare parts and services) and consumables (wire-ropes, lubricants, tyres, PPE). For capital expenditures, key categories include port construction (design, dredging, civil and construction), port equipment (ship-to-shore and yard cranes), and IT (infrastructure, network and software development).

All business units adhere strictly to PSA's policies, including Group Finance Policies and Procedures, the Group Health, Safety, Security and Sustainability (HSSS) Policy, and The Code. These policies provide key guidelines on ethical, safety and environmental issues arising from all business dealings. PSA business units also comply with all local legislations, examples being the Workplace Safety and Health Act, and the Environmental Protection and Management Act in Singapore.

In 2022, the Group Procurement department established PSA's sustainable procurement framework to manage the Group's procurement practices through a risk-based approach. In alignment with our Sustainability Strategy Framework, the sustainable procurement framework aims to provide guidance on upholding our ESG commitments in procurement decisions across the Group. While the framework sets out common mandatory ethics, health and safety, and environmental protection and cybersecurity requirements for all suppliers, business units have the discretion in prioritising other aspects of ESG based on the local context and prevailing practices.



PSA Sustainable Procurement Framework



The [Supplier Code of Conduct \(SCC\)](#) was developed to reinforce sustainable and ethical practices within our value chain. The SCC details our business principles and key expectations for suppliers and tenderers, and includes guidelines on areas such as anti-corruption, health and safety, cybersecurity and data security.

All of PSA's buildings, civil and construction tenders incorporate ESG assessments. As a standard practice, tenderers are invited to propose greener alternatives for PSA's consideration. This includes but is not limited to demonstrating the use of energy-efficient building designs and sustainable concrete. Comprehensive and strict cybersecurity requirements covering operational and information technology platforms are also set in place, with a screening process for all new suppliers requiring IT connectivity or data exchange with PSA.

PSA launched a supply chain sustainability platform to track the carbon footprint of our suppliers and tenderers and to

assess their ESG maturity. To facilitate this, a customised ESG survey covering areas such as compliance, health, safety and environment, labour rights and cybersecurity was developed. Initially tested with selected key suppliers, and further refined in the first half of 2023, these surveys are now an integral part of our key tenders and provide an ESG lens to our procurement and supplier management processes. For each of the surveyed suppliers, a score is derived from their survey responses and this score is tracked and benchmarked by Group Procurement. The ESG performance of our suppliers are assessed alongside Technical & Commercial evaluation criteria.

Taking the lead, PSA Singapore has screened 100% of their awarded suppliers for key tenders in the second half of 2023. In total, 97 local and international suppliers were screened and scored in 2023. These engagements will help to ensure that PSA works with like-minded suppliers who share our vision for reducing carbon emissions and promoting ESG principles.

Ensuring Responsible Operations

SUSTAINABLE PORT DEVELOPMENT

GRI 3-3

Leveraging on our extensive expertise in port development and management, PSA develops ports that are sustainable, operationally-efficient, and future-ready. Integrating sustainable design and climate adaptation measures into our port infrastructure, we ensure our assets are resiliently adapted to the changing climate.

Why It Is Important

PSA's ports act as vital hubs for international trade and port infrastructure is a key part of PSA's physical assets. To address and prepare for climate change, we work to reduce carbon footprint of our infrastructure while increasing their resilience against the growing physical risks brought about by climate change. In this manner, PSA limits the potential for future disruptions within the supply chain by securing our assets.



Our Approach

At PSA, all new infrastructure projects are developed in compliance with environmental requirements, including local legislations. Additionally, the PSA Civil Infrastructure Sustainability Roadmap sets out the minimum requirements, frameworks and key sustainability considerations required when carrying out civil infrastructure projects. The Roadmap is dedicated to establishing minimum sustainability requirements across four key domains: Sustainable management of civil infrastructure projects, integration of sustainability in the construction and design of civil infrastructure, minimum requirements for sustainable buildings, and the use of durable and sustainable concrete. The Roadmap also provides guidelines for sustainability programs within the Group, such as sustainability for existing buildings, and climate risk assessment and adaptation.

Sustainable Civil Infrastructure

As part of the overall Civil Infrastructure Sustainability Roadmap, we established the Managing Sustainable Civil Infrastructure Projects Framework to implement a structured approach to managing sustainability risks on PSA's civil infrastructure development projects and ensure alignment with PSA's sustainability goals and [Equator Principles](#). Applying to greenfield and brownfield civil infrastructure projects over USD 10 million, the Framework sets out the general process for managing sustainability on civil infrastructure projects from the planning and design stage to completion of construction, integrating sustainability considerations through the process.

The Framework also identifies ten areas of focus for the construction stage of our civil infrastructure projects.

Areas of Focus for Civil Infrastructure Projects



Focus on Sustainable Concrete

With cement production being a major source of carbon emissions worldwide, we developed recommendations for the use of sustainable concrete to ensure our major projects incorporate a "Sustainable Concrete Plan" for the concrete used in construction. We assess and implement sustainable cement substitutes such as ground granulated blast furnace slag (GGBS), which is an industrial by-product. The use of GGBS, when maximised in the concrete mix, yields carbon emissions reduction of up to 70%. GGBS also enhances concrete durability.



In 2023, we have achieved our target of implementing the PSA requirements for sustainable concrete in 50% of our new major civil infrastructure construction projects and we are in the process of achieving implementation in

80%

of these projects by 2030.

Efforts in Sustainable Construction

Tuas Port encapsulates Singapore's visionary ambition to remain at the very forefront of sustainability and innovation in the maritime sector. Upon its full completion in the 2040s, Tuas Port is expected to be the world's largest fully automated container terminal in a single location powered by smart technology and green energy, with an annual handling capacity of 65 million TEUs.

The use of sustainable concrete in the construction of the berths and yards at Tuas is a clear demonstration of our commitment to sustainability. Replacing 80% of the use of ordinary portland cement with GGBS, we significantly reduce the embodied carbon of the Tuas Port development. Furthermore, carbon mineralisation has also been introduced following the successful test-bedding of the CarbonCure Technology. By injecting carbon dioxide into concrete, the carbon dioxide undergoes a mineralisation process to become permanently embedded in the concrete. Together, these initiatives will lead to more than 1.4 million tonnes of carbon savings for the Tuas Port development.

At PSA Mumbai in India, construction is currently underway to further increase the terminal's capacity and operational capabilities, while also prioritising sustainable construction practices throughout the project. Some of these initiatives include:

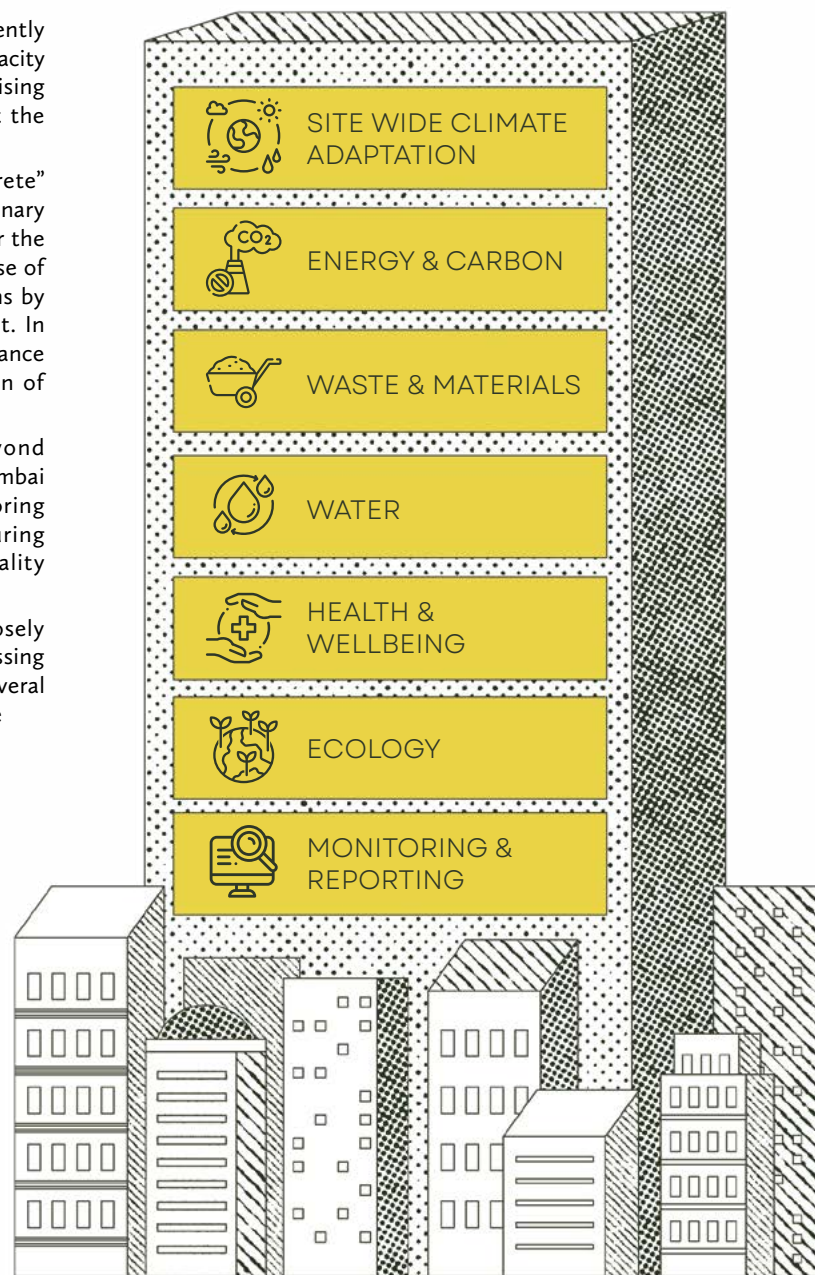
- **Using sustainable concrete:** A "green concrete" mix that replaces approximately 50-65% ordinary portland cement with GGBS is being used for the wharf and infrastructure construction. The use of GGBS is estimated to lower carbon emissions by approximately 69,000 tCO₂e for the project. In addition, the use of GGBS is expected to enhance concrete durability and prolong the lifespan of the infrastructure.
- **Meeting environmental standards:** Beyond incorporating sustainable materials, PSA Mumbai mandates stringent environmental monitoring throughout the construction phase, ensuring compliance with air, noise and water quality regulations.
- **Going beyond compliance:** By working closely with the contractors, PSA Mumbai is surpassing regulatory requirements by implementing several additional sustainability measures. These include installation of toilets with bio-digester tanks at the wharf front and precast yards, the use of solar powered lights at various locations, and the reuse of rainwater to reduce the water consumption at the construction site.

Building Sustainability Framework

Our approach to building infrastructure is guided by our commitment to sustainable design. PSA's mandatory application of its building sustainability framework provides the overall governing principles and guidelines in addressing the seven key areas for sustainable buildings. These principles are taken into account not only in the development of new infrastructure, but are also applied to retrofitting our existing buildings, improving energy efficiency in our assets where possible.

In managing building infrastructure, PSA's sustainability considerations extend beyond the environment. We ensure holistic integration of social factors, including health and wellbeing. By prioritising sustainable design, PSA has been able to provide our people with a conducive workplace, while benefiting from cost savings.

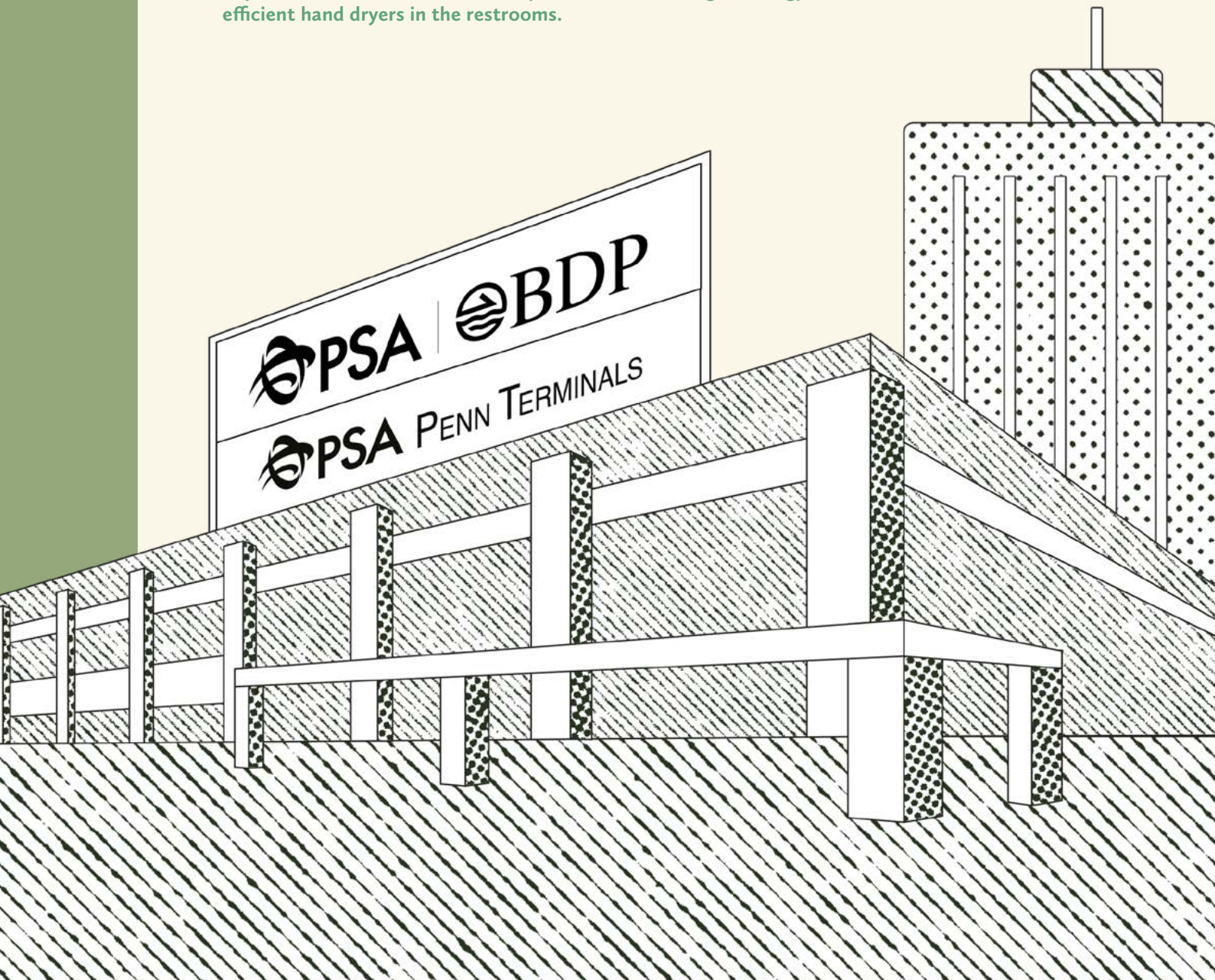
7 Areas of Sustainable Buildings



SUSTAINABLE OFFICE BUILDING AT PSA PENN TERMINALS AND PSA BDP ASTON

PSA Penn Terminals and PSA BDP Aston have officially inaugurated their new office building located just outside of PSA Penn Terminals' grounds in Philadelphia, USA.

With an eye towards energy reduction, the design included new double-paned windows which reduce heat and air conditioning needs in the winter and summer, and the walls and roof have been well insulated. The offices' energy-efficient LED lighting has a feature called "light harvesting" which facilitates automatic dimming of the overhead lights proportional to the amount of daylight detected. Paper waste will also be reduced by the users switching to energy-efficient hand dryers in the restrooms.



Keeping Our Operations Safe and Secure

PORT SECURITY

GRI 3-3

As a global terminal operator and active stakeholder in the fight against illicit cross-border activities, we strive to uphold the highest standards of port security to foster a safe and secured global trade landscape.

Why It Is Important

While ports are vital for facilitating national and international commerce, global interconnectedness and the ports' centrality in global trade networks render them susceptible to various threats. This vulnerability exposes ports to potential criminal or terrorist activities, underscoring the critical importance of robust security measures to mitigate risks and ensure uninterrupted trade operations.

Comprehensive port security begins with identifying and addressing actual and potential risks. This includes the susceptibility of our networks to exploitation by traffickers to smuggle drugs and other dangerous illegal goods by disguising them as legitimate cargo.

Recognising this, PSA remains vigilant and works closely with the relevant authorities to implement the necessary preventive measures to fortify the security of our operations. By pre-empting and swiftly responding to illegal activities, we maintain our status as a trusted and preferred port of call.

Our Approach

Beyond ensuring regulatory compliance, PSA has implemented multiple layers of safeguards to enhance the security of its operations.

Managing Port Security Across Business Units

Through PSA's Group HSS Management System and Group-wide security standard, we implement stringent measures to uphold port security. These directives are crucial in the establishment of robust governance structures within each business unit to comprehensively oversee port security management.

PSA also consistently emphasises the need for business units to develop robust Port Facilities Security Plans in accordance with the International Ship and Port Facility Security (ISPS) Code, endorsed by the relevant port authority or Recognised Security Organisation. Customised to meet the specific operational requirements of each business unit, these plans are implemented by specialised teams comprising security managers and port security facilities officers. As a repository of security protocols, the Port Facilities Security Plan equips employees with the necessary guidance to effectively execute critical security functions. Business units are required to track and report physical security incidents in compliance with the HSS MS requirements. This includes contraband or smuggling incidents, stowaways, theft of terminal assets and incidents of unauthorised access into facilities. These indicators are closely monitored by Group HSS and reported to the Senior Management Council at least twice a year, which in turn guide PSA's strategies and future responses to such incidents.



Training Employees on Security Management

Fostering a shared understanding of our employees' roles and responsibilities is fundamental to ensuring port safety and security. At PSA, we accomplish this by building effective cooperation and competence within our workforce.

Our security management staff receive ongoing training and refresher courses to stay abreast of the latest security developments, covering a spectrum of topics such as ISPS compliance, counterterrorism tactics, dangerous cargo management, and overall security awareness. Furthermore, we conduct quarterly port security drills to provide hands-on experience for employees, allowing them to familiarise themselves with key procedures and identify potential areas for improvement in our Port Facilities Security Plan.



OUR COMMITMENT

We ensure the highest security standards wherever we operate.

Identifying and Pre-Empting Potential Threats

PSA's approach to upholding port security goes beyond responding to security threats as they arise – we are proactive in anticipating potential risks. Across our business units, PSA engages external accredited security experts to perform Threat, Vulnerability, and Risk Assessments (TVRAs). TVRAs analyse potential security vulnerabilities, evaluating the readiness of our assets and locations to withstand various scenarios and deriving actionable insights from these assessments. Through this process, our business units can effectively monitor their security status and take decisive measures to strengthen protection in key areas.

Working with Local Authorities

PSA acknowledges the importance of a strong partnership with local authorities to uphold national security and address security concerns. All business units are mandated to engage with local customs authorities to eliminate undeclared hazardous goods and all illicit activities. For instance, PSA Singapore actively participates in initiatives aimed at ensuring the safety of transported goods, such as the Cargo Targeting System (CTS), the Container Security Initiative (CSI) targeting US-bound shipments and the Radiation Detection Initiative for export containers. In the event of a security breach, PSA promptly initiates its incident investigation procedure and escalates significant incidents to the relevant local authorities.



CYBERSECURITY AND DATA PRIVACY

GRI 3-3, 418-1

PSA considers the continual fortification of our cybersecurity resilience as an absolute necessity. We recognise the need for consistent efforts to safeguard our systems, securing stakeholders' data and information amidst the growing threat of cyberattacks.

Why It Is Important

As companies embrace the widespread application of digitalisation throughout their operations, the threats of cyberattacks and risks to data privacy rise in tandem. The management of potential cybersecurity threats has become as crucial as the protection of physical assets and infrastructure as an essential hygiene factor for all companies to protect their operations, customers, and reputation. As a global port operator with a wide range of customers along the supply chain, PSA understands the importance of robust governance and security processes in protecting our stakeholders.

Our Approach

To promote strong data governance across the organisation, PSA developed the Group Data Policy. This policy covers the five key governance principles of data accountability, data access, data usage, data integrity and data retention. All subsidiaries and joint ventures within the PSA Group are obligated to adhere to the PSA Group Data Governance Standards (DGS), which encompass these fundamental principles. In addition, the Group Personal Data Protection Policy requires business units to comply with relevant data protection laws in their country of operation, for example the General Data Protection Regulation in Europe, and the Personal Data Protection Act in Singapore.

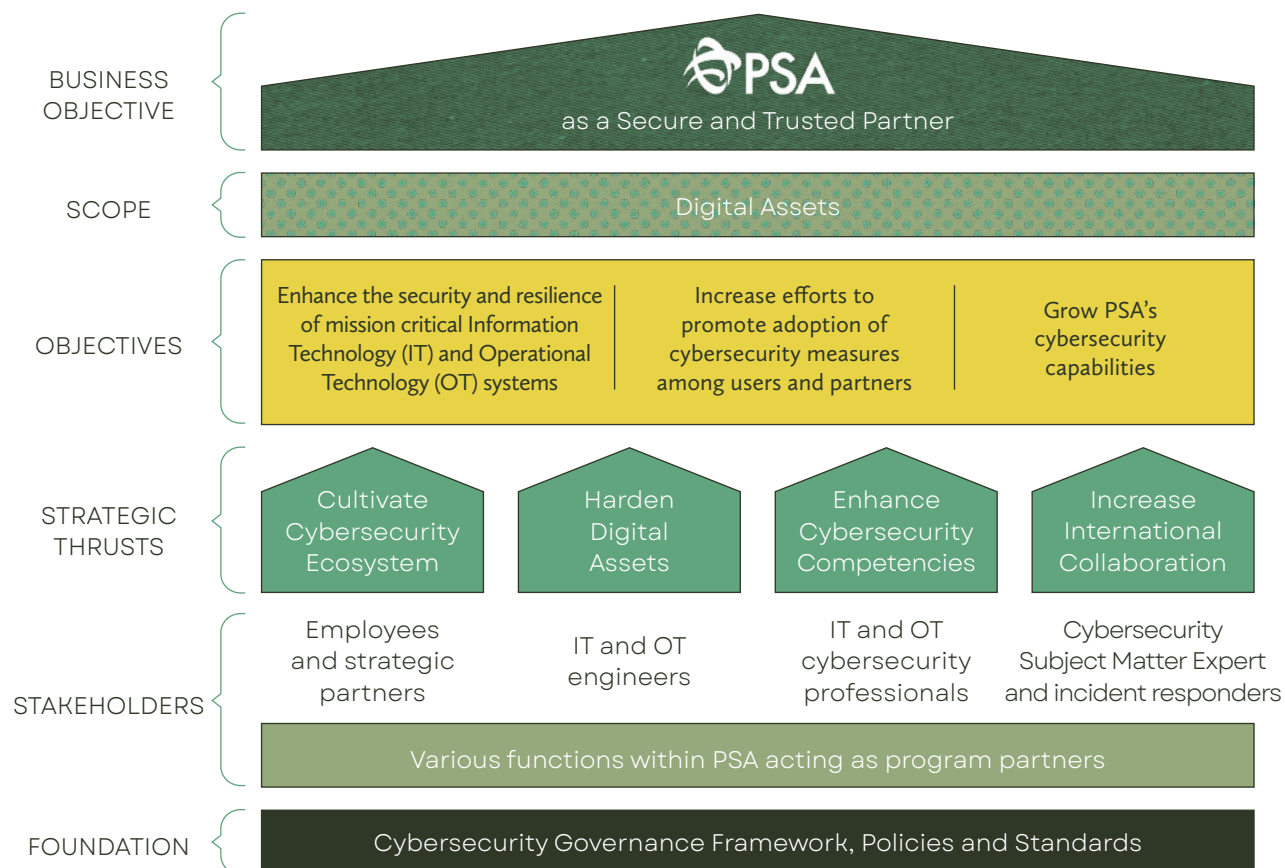


OUR COMMITMENT

We seek to adopt cybersecurity best practices and ensure full compliance with all applicable laws.

To ensure PSA's digital assets and services maintain a high level of security, resilience and availability, the Group-wide PSA Cybersecurity Master Plan (CSMP) was launched. Built on four strategic thrusts, the masterplan enhances PSA's cybersecurity by providing a systematic framework of programs and projects.

PSA Cybersecurity Master Plan



The foundation of the CSMP is established by PSA's Group-wide Cybersecurity Management System and Group Information Technology Security Standard, Group Operational Technology Security Standards, and the corresponding Acceptable Use Policies. Providing the mandatory governance policies, standards, procedures and security requirements that all employees, external contractors and service providers have to adhere to, helps ensure the safety of PSA's systems and data. PSA also requires all business units to adhere to the cybersecurity standards and regulations of their respective country of operation. Across our operations, we implement cybersecurity management systems aligned with internationally recognised standards and best practices such as ISO 27001 standard and NIST Cybersecurity Framework. This ensures we maintain high visibility over digital processes and have the necessary infrastructure to detect and respond to potential breaches and attacks. To ensure that business units' cybersecurity systems and processes meet the necessary requirements, PSA Group conducts assessments on their overall cybersecurity postures. The assessment includes overall posture assessment, vulnerability management, security information and event management, cybersecurity awareness training coverage and effectiveness.

To further foster a culture of cybersecurity, PSA holds an annual cybersecurity campaign and all new hires are required to complete the PSA Swordfish e-learning modules as part of their induction into our organisation. This ensures a strong foundation in cybersecurity best practices and continued learning as potential cyber threats evolve.

In 2023, there were no complaints concerning breach of customer privacy. There were also no breaches to the organisation's IT or OT systems which led to any leaks, theft, or loss of customer data.

CYBERSECURITY DAY 2023

PSA organised its annual Cybersecurity Day on 19 July, emphasising the theme of "Cybersecurity in the new Quantum & Artificial Intelligence (AI) age". Attended by over 300 employees, the event underscored the critical significance of cybersecurity awareness amidst evolving cyber threats. Topics of discussion included the strategies by Group IT to fortify cyber-resilience, in alignment with advancements in AI and quantum computing. Attendees were also educated on phishing tactics, the limitations of Multi-Factor Authentication (MFA) and tactics to bolster personal and organisational security against such threats.

The event also celebrated the achievements of 13 participants from across the PSA Group who completed the inaugural PSA-SIT Cybersecurity training program, a collaborative endeavour between PSA University, Group IT, and the Singapore Institute of Technology (SIT).

DATA AND ASSURANCE



IN THIS SECTION

**ESG Data
Summary**

**PSA BDP Data
Summary**

**GRI Content
Index**

**Taskforce
on Climate-
related
Financial
Disclosures**

**Independent
Limited
Assurance
Statement**

ESG DATA SUMMARY

ENVIRONMENT

		Units	2021	2022	2023
Direct (Scope 1) Greenhouse Gas Emissions	Scope 1 GHG emissions	kTCO ₂ e	497	484	473
		Units	2021	2022	2023
Energy Indirect (Scope 2) Greenhouse Gas Emissions	Scope 2 GHG emissions – Market-based	kTCO ₂ e	285	261	229
	Scope 2 GHG emissions – Location-based		307	288	275
		Units	2021 ⁽²⁾	2022	2023
Other Indirect (Scope 3) Greenhouse Gas Emissions ⁽¹⁾	Total Scope 3 GHG emissions	kTCO ₂ e	-	1,499	1,562
	Cat 2 – Capital goods		-	138	200
	Cat 3 – Fuel and energy-related activities		-	149	142
	Cat 9 – Downstream transportation and distribution		-	790	778
	Other categories		-	422	442
		Units	2021	2022	2023
Greenhouse Gas Emissions Intensity	Emissions intensity (container terminals only)	kgCO ₂ e/TEU	11.4	11.1	9.7
		Units	2021	2022	2023
Energy Consumption ⁽³⁾	Fuel consumption from non-renewable sources	TJ	9,642	9,571	9,302
	Fuel consumption from renewable sources		39	39	39
	Purchased grid electricity		4,689	4,533	4,332
	Self-generated electricity		27	43	47
		Units	2021	2022	2023
Water Withdrawal	Total water withdrawal from water-stressed areas ⁽⁴⁾	megalitres	382	503	823
	Surface water		0	0	3
	Groundwater		32	31	53
	Seawater		0	0	0
	Third-party water		350	472	767
	Total water withdrawal from non water-stressed areas	megalitres	2,494	2,447	1,957
	Surface water		31	21	16
	Groundwater		35	38	52
	Seawater		0	0	0
	Third-party water		2,428	2,388	1,889

Notes: ⁽¹⁾ All Scope 3 categories data were calculated using equity-based approach.

⁽²⁾ Scope 3 emissions data is unavailable for 2021, as data collection exercise only commenced in 2022.

⁽³⁾ Energy consumption data is on 100% equity basis.

⁽⁴⁾ Water-stressed areas are determined using the WRI Aqueduct Water Risk Atlas tool.

ENVIRONMENT

		Units	2021	2022	2023
Waste Generated	Total generated waste	metric tons	90,700	28,500	48,280
	Industrial waste		17,700	12,100	14,460
	Construction waste		61,400	9,600	18,310
	General waste		9,400	5,100	13,570
	Packaging waste		1,300	1,200	1,530
	Office waste		700	400	370
	Other waste		200	100	40
	Effluents	megalitres	1,308	880	1,350

SOCIAL

		Units	2021 ⁽²⁾	2022	2023
Total Workforce ⁽¹⁾	Total workforce	No. of employees	42,000	49,000	55,000
	PSA Corporate Centre		-	500	500
	Ports – Southeast Asia		-	15,100	16,500
	Ports – Europe and Mediterranean		-	15,300	11,200
	Ports – Americas				4,800
	Ports – Middle East South Asia		-	4,900	4,800
	Ports – Northeast Asia		-	5,400	7,000
	PSA Marine		-	1,000	1,900
	CrimsonLogic		-	1,200	1,300
	PSA BDP		-	5,600	7,000

		Units	2021	2022	2023
New Employee Hires and Employee Turnover ⁽³⁾	Total number of new employee hires	No. of employees	4,122	4,200	3,896
	Total number of employee turnover		-	3,184	3,223

		Units	2021 ⁽⁴⁾	2022 ⁽⁴⁾	2023 ⁽⁵⁾
Average Hours of Training Per Year Per Employee ⁽³⁾	Average training hours per employee	Hours	69	33	33

		Units	2021	2022	2023
Work-Related Fatalities and Injuries	Fatalities				
	Employees	No. of Incidents	1	0	2
	Contractors		1	3	3
	Third-party workers		1	6	0
	Safety incidents resulting in permanent disability				
	Employees	No. of Incidents	0	0	1
	Contractors		0	2	0
	Third-party workers		0	0	1
	Recordable work-related injuries				
	Employees	No. of Incidents	128	129	140
	Contractors		213	235	248
	Lost Time Injuries Frequency Rate (LTIFR)	-	2.94	2.93	2.96

Notes: ⁽¹⁾ The numbers represent headcount at the end of each reporting period, 31 December of each year. PSA BDP, ALISAN, and SOTRANS figures have been included in the 2023 headcount figures. The reporting scope in 2023 was enhanced to include additional entities from the Ports – NEA and PSA Marine regions for which headcount figures were previously not captured in 2021 and 2022.

⁽²⁾ Figures of workforce breakdown by regions/business units were not disclosed in 2021.

⁽³⁾ This only includes direct hires.

⁽⁴⁾ Training hours data only covers employees in PSA Corporate Centre, PSA Singapore and Belgium entities.

⁽⁵⁾ 2023 training hours data covers all our business units.

SOCIAL

		Units	2021	2022	2023
Diversity of Governance Bodies and Employees – By Gender	Percentage of individuals within the Board				
	Male	%	80	80	73
	Female		20	20	27
	Percentage of executive employees				
	Male		75	77	76
	Female		25	23	24
	Percentage of non-executive employees				
	Male		92	90	93
	Female		8	10	7

		Units	2021	2022	2023
Diversity of Governance Bodies and Employees – By Age Group	Percentage of individuals within the Board				
	Over 50 years old	%	100	100	100
	Percentage of executive employees				
	Under 30 years old		14	12	15
	30 – 50 years old		68	69	67
	Over 50 years old		18	19	18
	Percentage of non-executive employees				
	Under 30 years old		17	22	22
	30 – 50 years old		66	62	61
	Over 50 years old		17	16	17

GOVERNANCE

		Units	2021	2022	2023
Kua Hong Pak Innovation Awards (KHPIA)	No. of submitted projects	No. of submissions	556	550	682
		Units	2021	2022	2023
Communication and Training about Anti-Corruption Policies and Procedures ⁽¹⁾	Percentage of employees received anti-corruption training	%	42	46	31
		Units	2021	2022	2023
Substantiated Complaints Concerning Breaches of Customer Privacy	Substantiated complaints received	No. of complaints	0	0	0
		Units	2021	2022	2023
IT System Breaches Leading to Leaks, Theft or Loss of Customer Data	Breach of IT or OT systems	No. of incidents	0	0	0

Note: ⁽¹⁾ For 2021 and 2022, the figures report employees who have gone through anti-corruption training before with no stipulated timeline. For 2023, this has been tightened to report employees who have gone through anti-corruption training in the reporting year.

PSA BDP DATA SUMMARY

The key performance data for PSA BDP is included in [page 87](#) for a comprehensive view of our overall performance. The pre-assurance exercise is done for the data set presented in this section, and PSA BDP is preparing for future assurance process.

ENVIRONMENT

Greenhouse Gas Emissions ⁽¹⁾

		Units	2023
Direct (Scope 1) Greenhouse Gas Emissions	Gross direct Scope 1 GHG emissions	tCO ₂ e	121
Energy Indirect (Scope 2) Greenhouse Gas Emissions ⁽²⁾	Gross direct Scope 2 GHG emissions – Market-based	tCO ₂ e	0
	Gross direct Scope 2 GHG emissions – Location-based		0
		Units	2023
Energy Consumption ^{(2), (3)}	Fuel consumption from non-renewable sources	TJ	1.6

Notes: ⁽¹⁾ Carbon emissions in the above table are computed based on an equity share consolidation approach. Greenhouse gases included in the calculation are CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃. Emissions factors for Scope 1 emissions were sourced from GHG Protocol Emissions Factors for Cross Sector Tools (March 2017).

⁽²⁾ There was no electricity, heating, cooling, or steam purchased for self-owned assets. There was also no electricity, heating, cooling or steam sold.

⁽³⁾ Energy consumption data is on 100% equity basis.

SOCIAL

New Employee Hires ⁽¹⁾	AGE GROUP						GENDER ⁽²⁾			
	Under 30 years old		30-50 years old		Over 50 years old		Male		Female	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
	283	45%	296	47%	54	9%	338	53%	294	46%

Employee Turnover ⁽¹⁾	AGE GROUP						GENDER ⁽²⁾			
	Under 30 years old		30-50 years old		Over 50 years old		Male		Female	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
	338	40%	87	10%	423	50%	382	45%	465	55%

Notes: ⁽¹⁾ New employee hires and employee turnover figures refer to direct hires only.

⁽²⁾ One employee did not disclose gender.

GRI CONTENT INDEX

Statement of use	PSA International has reported in accordance with the GRI Standards for the period 1 January to 31 December 2023
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	N/A

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION
General disclosures		
GRI 2: General Disclosures 2021	2-1 Organizational details	p. 9-10 Annual Report 2023
	2-2 Entities included in the organization's sustainability reporting	p. 3 The performance data from p. 23 – 86 of this report covers all our business entities involved in container terminals, rail/inland terminals, inland container depots/warehouses, marine and IT services. The data of select indicators for PSA BDP is available on page p. 87 .
	2-3 Reporting period, frequency and contact point	p. 3, 6, 8
	2-4 Restatements of information	p. 33-34, 44
	2-5 External assurance	p. 3, 93-96
	2-6 Activities, value chain and other business relationships	p. 10-11 PSA has expanded its markets served and activities through PSA BDP, bringing our global footprint to 170 locations in more than 40 countries. For more information on new activities, see our Annual Report 2023.
	2-7 Employees	p. 47, 85 Information unavailable/incomplete: will come to report employee breakdown by gender and category in the future when information is more complete.
	2-8 Workers who are not employees	p. 47
	2-9 Governance structure and composition	p. 20 Annual Report 2023 p. 11-12
	2-10 Nomination and selection of the highest governance body	Confidentiality constraints: PSA is a private entity and does not currently disclose the following information.
	2-11 Chair of the highest governance body	p. 20 Annual Report 2023
	2-12 Role of the highest governance body in overseeing the management of impacts	p. 20
	2-13 Delegation of responsibility for managing impacts	p. 20
	2-14 Role of the highest governance body in sustainability reporting	p. 20
	2-15 Conflicts of interest	Confidentiality constraints: PSA is a private entity and does not currently disclose the following information.

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION
General disclosures		
GRI 2: General Disclosures 2021	2-16 Communication of critical concerns	p. 20
	2-17 Collective knowledge of the highest governance body	p. 20
	2-18 Evaluation of the performance of the highest governance body	Confidentiality constraints: PSA is a private entity and does not currently disclose the following information.
	2-19 Remuneration policies	Confidentiality constraints: PSA is a private entity and does not currently disclose the following information.
	2-20 Process to determine remuneration	Confidentiality constraints: PSA is a private entity and does not currently disclose the following information.
	2-21 Annual total compensation ratio	Confidentiality constraints: PSA is a private entity and does not currently disclose the following information.
	2-22 Statement on sustainable development strategy	p. 5-8
	2-23 Policy commitments	p. 70-72
	2-24 Embedding policy commitments	p. 5
	2-25 Processes to remediate negative impacts	p. 72
	2-26 Mechanisms for seeking advice and raising concerns	p. 72
	2-27 Compliance with laws and regulations	p. 72
	2-28 Membership associations	p. 12-13
	2-29 Approach to stakeholder engagement	p. 21-22
	2-30 Collective bargaining agreements	p. 59
Material topics		
GRI 3: Material Topics 2021	3-1 Process to determine material topics	p. 17
	3-2 List of material topics	p. 18-19
Creating Sustainable Value		
Taking Climate Action: Climate Change Adaptation		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 24-31
Taking Climate Action: Emissions and Energy		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 32-38
GRI 302: Energy 2016	302-1 Energy consumption within the organisation	p. 34
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	p. 33-34
	305-2 Energy indirect (Scope 2) GHG emissions	p. 33-34
	305-3 Other indirect (Scope 3) GHG emissions	p. 35
Transforming Supply Chains: Optimisation of Global Supply Chains		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 64-66

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION
Transforming Supply Chains: Innovation and Technology		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 67-69
Nurturing a Future-Ready Workforce: People Development		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 46-51
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	p. 48
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	p. 59
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	p. 51
Nurturing a Future-Ready Workforce: Occupational Health and Safety		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 52-55
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	p. 52-53
	403-2 Hazard identification, risk assessment, and incident investigation	p. 53-54
	403-3 Occupational health services	p. 53-54
	403-4 Worker participation, consultation, and communication on occupational health and safety	p. 53-54
	403-5 Worker training on occupational health and safety	p. 53-54
	403-6 Promotion of worker health	p. 53, 59
	403-7 Prevention and mitigation of occupational health and safety impacts linked by business relationships	p. 52-55
	403-8 Workers covered by an occupational health and safety management system	p. 53
	403-9 Work-related injuries	p. 55
Stewarding Responsible Business		
Ensuring Responsible Operations: Sustainable Port Development		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 75-78
Ensuring Responsible Operations: Marine Protection and Conservation		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 39-40
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	p. 39-40
Ensuring Responsible Operations: Waste Management and Recycling		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 41-42
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	p. 41-42
	306-2 Management of significant waste-related impacts	p. 41-42
	306-3 Waste generated	p. 41-42

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION
Ensuring Responsible Operations: Water Use and Pollution		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 43-44
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	p. 43 At present, while PSA has water conservation activities, a specific water-related target has not yet been set.
	303-2 Management of water discharge-related impacts	p. 43, 52-53
	303-3 Water withdrawal	p. 44
Protecting Our People: Employee Diversity and Inclusion		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 56-57
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	p. 57
Protecting Our People: Labour Relations and Worker Wellbeing		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 58-59
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	p. 59
Acting with Integrity: Ethical Business Conduct		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 70-72
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	p. 71
Acting with Integrity: Sustainable Procurement		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 73-74
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	p. 74
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	p. 74
Supporting Our Communities: Community Relations		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 60-62
Keeping Our Operations Safe and Secure: Port Security		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 79-80
Keeping Our Operations Safe and Secure: Cybersecurity and Data Privacy		
GRI 3: Material Topics 2021	3-3 Management of material topics	p. 81-82
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	p. 82

TASKFORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

DISCLOSURE	LOCATION
GOVERNANCE	
Describe the board's oversight of climate related risks and opportunities.	Board and Committee Oversight, p. 25
Describe management's role in assessing and managing climate related risks and opportunities.	Management Structure, p. 25
STRATEGY	
Describe the climate related risks and opportunities the organisation has identified over the short, medium, and long term.	Climate-Related Risks Assessment and Scenario Analysis Methodology, p. 26
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	Physical Risk Assessment, p. 28 Transition Risk Assessment, p. 29-30
Describe the resilience of the organisation's strategy, taking into consideration different climate related scenarios, including a 2°C or lower scenario.	Climate-Related Risks Assessment and Scenario Analysis Methodology, p. 26 Physical Risk Assessment, p. 28 Transition Risk Assessment, p. 29-30
RISK MANAGEMENT	
Describe the organisation's processes for identifying and assessing climate-related risks.	Risk Identification & Assessment Process, p. 27
Describe the organisation's processes for managing climate related risks.	Physical Risk Assessment, p. 28 Transition Risk Assessment, p. 29 Risk Management, p. 31
Describe how processes for identifying, assessing, and managing climate related risks are integrated into the organisation's overall risk management.	Risk Management, p. 31
METRICS & TARGETS	
Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Metrics and Targets, p. 31
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Metrics and Targets, p. 31
Describe the targets used by the organisation to manage climate related risks and opportunities and performance against targets.	Metrics and Targets, p. 31

INDEPENDENT LIMITED ASSURANCE STATEMENT

To: THE Management of PSA INTERNATIONAL PTE LTD (PSA)



INTRODUCTION AND OBJECTIVES OF WORK

Bureau Veritas Singapore (Bureau Veritas) has been engaged by PSA International Pte Ltd (PSA) to provide limited assurance on its Sustainability Report 2023 (the Report). This Assurance Statement applies to the related information included within the scope of work described below. The aim of this process is to provide assurance to PSA's stakeholders over the accuracy, reliability and objectivity of the reported information and that it covers the issues material to the business and its stakeholders.

SCOPE OF WORK

(i) Selected Information

The scope of our work was limited to assurance over performance data for PSA's Ports core business and information included within the PSA's Sustainability Report 2023 ('the Report') for the period 1st January 2023 – 31st December 2023, (the 'Selected Information') as listed below:

- General Disclosures as per GRI 3: Material Topics 2021 Universal Standards (Disclosure 3-3 Management of material topics) for following material topics.
 - Climate Change Adaptation
 - Emissions & Energy
 - Optimisation of Global Supply Chains
 - Innovation & Technology
 - People Development
 - Occupational Health & Safety
- Performance data for 2023 has been assured for the following GRI indicators.
 - 302-1 Energy consumption within the organisation
 - 305-1 Direct (Scope 1) GHG emissions
 - 305-2 Energy indirect (Scope 2) GHG emissions
 - 401-1 New employee hires and employee turnover
 - 403-9 Work-related injuries
 - 404-1 Average hours of training per year per employee

(ii) Reporting Criteria

The Selected Information has been assessed against the Reporting Criteria within the basis of preparation and/or additional information for PSA's Sustainability Report 2023 performed in compliance with the requirements specified in 'Reporting in accordance with the GRI Standards' ("the Reporting Criteria").

(iii) Management Responsibility

Management is responsible for establishing suitable criteria for preparing the Selected Information and for the preparation of the Selected Information in accordance with the Reporting Criteria. The responsibility includes:

- Designing, implementing and maintaining internal control relevant to the preparation of Selected Information that is free from material misstatement, whether due to fraud or error; and
- Measuring and reporting the Selected Information based on the Reporting Criteria.

The Board has ultimate responsibility for the company's sustainability reporting.

(iv) Auditor's Responsibility

A limited assurance engagement involves assessing the suitability in the circumstances of PSA's use of the Reporting Criteria as the basis for the preparation of the Selected Information, assessing the risks of material misstatement of the Selected Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Selected Information.

The procedures selected included inquiries, observations of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records. Given the circumstances of the engagement, we also performed the following:

- Evaluated the suitability of the Reporting Criteria as a basis to prepare the Selected information;
- Interviewed management and personnel from the relevant parties in relation to the Selected Information;
- Obtained an understanding of how the Selected Information is gathered, collated and aggregated internally;
- Performed limited substantive testing, on a selective basis, of the Selected Information
 - To verify the assumptions, estimations and computations made in relation to the Selected Information, and
 - To check that data has been appropriately measured, recorded, collated, and reported, to the extent we considered necessary and appropriate to provide sufficient evidence for our conclusion; and
- Assessed the disclosure and presentation of the Selected Information.

(v) Inherent Limitations

In designing these procedures, we considered the system of internal controls in relation to the Selected Information and reliance has been placed on internal controls where appropriate. Because of the inherent limitations in any internal control system, errors and irregularities may nevertheless occur and not be detected.

RESPONSIBILITIES

The preparation and presentation of the Selected Information in the report, as defined in the scope of work, is the sole responsibility of the management of PSA.

Bureau Veritas was not involved in the drafting of the report. Our responsibilities were to:

- Obtain limited assurance about whether the Selected Information has been appropriately and accurately prepared;
- Form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- Report our conclusions to the management of PSA.

ASSESSMENT STANDARD

We performed our work in accordance with the International Standard on Assurance Engagements (ISAE3000), referring to Global Reporting Initiative (GRI Standard).

SUMMARY OF WORK PERFORMED

Our procedures performed, which are set out in more detail below, included assessments of the risks of material misstatement of selected performance indicators and disclosures and underlying internal controls relevant to the information published in the sustainability report. Our procedures were designed to gather sufficient and appropriate evidence to determine that the selected performance information is not materially misstated.

To reach our conclusions we undertook the following activities:

- Assessing the data collection and consolidation processes used for gathering and reporting of the information listed in the assurance scope above.
- Conducting onsite data verification at PSA Headquarters, and two container terminals located in Singapore – Pasir Panjang Terminals and Tuas Port. In addition, data verification was performed for two other port locations in China – Guangzhou Container Terminal and Belgium – MSC PSA European Terminal, deploying a risk-based approach as mentioned in the point above.
- Conducting remote interview with personnel responsible for data collection, collation and reporting at two port locations in China – Guangzhou Container Terminal and Belgium – MSC PSA European Terminal.
- Testing of the sample data and reviewing evidence provided through a risk based approach;
- Comparing the information presented in the report with corresponding evidence in the source materials to ensure the reported data is supported by underlying records.
- Assessing the disclosure and presentation of the Selected Information to ensure consistency with assured information.

CONCLUSION

Based on the procedures we have performed and the evidence, nothing has come to our attention that causes us to believe that the Selected Information presented in PSA's Sustainability Report 2023 is not fairly stated in all material respects.

KEY OBSERVATIONS

Without affecting the conclusion presented above, we would like to draw the readers' attention to the following:

- Standard work processes are in place to collect relevant data from various stakeholders for GHG emissions, new hires, attrition and training hours reporting, and Occupational Health & Safety management.
- PSA is actively adopting advanced technological solutions such as battery energy storage systems and hydrogen fuel-based systems to optimise energy efficiency across their operations, in their efforts to reduce their carbon footprint.
- PSA has systems such as the Climate Response Management System (CRMS) in place to guide sustainability project management.
- PSA has an advanced GHG quantification platform to centralise carbon emissions data collection and computations for Scope 1 & 2 carbon emissions, as well as a platform to collate data and information related to safety incidents.
- PSA has developed a GHG methodology handbook that provides detailed guidelines to assist relevant internal stakeholders.

STATEMENT OF INDEPENDENCE, INTEGRITY AND COMPETENCE

Bureau Veritas is an independent professional services company that specializes in quality, environmental, health, safety and social accountability with over 185 years history. Its assurance team has extensive experience in conducting verification over environmental, social, ethical and health and safety information, systems and processes.

Bureau Veritas operates a certified Quality Management System which complies with the requirements of ISO 9001:2015, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Bureau Veritas has implemented and applies a Code of Ethics that meets the requirements of the International Federation of Inspections Agencies (IFIA) across the business to ensure that its employees maintain integrity, objectivity, professional competence, due care, confidentiality, professional behaviour and high ethical standards in their day-to-day business activities. The assurance team for this work does not have any involvement in any other Bureau Veritas projects with PSA.

PURPOSE AND RESTRICTION ON DISTRIBUTION AND USE

This report and the conclusions drawn are intended solely for PSA, as stipulated in our engagement agreement. To the fullest extent permitted by law, Bureau Veritas accepts no liability or responsibility to any party other than PSA for any analysis, interpretation, or conclusion contained in this report.

Bureau Veritas Singapore Pte. Ltd.**Date: 20.06.2024**

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