

Transcending. Next Level.



PETRONAS



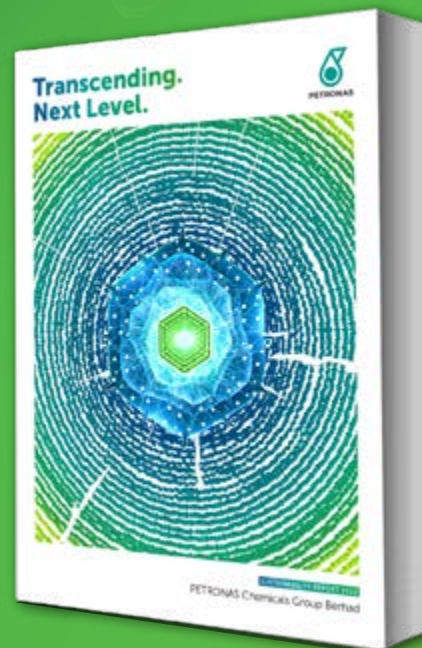
SUSTAINABILITY REPORT 2022

PETRONAS Chemicals Group Berhad



TRANSCENDING. NEXT LEVEL.

Last year, we showcased how sustainability is a large part of our DNA. The landmark acquisition in 2022 takes us further into specialties and strengthens the Group's sustainability. Our cover reflects our ongoing value creation journey, a true embodiment of how we are Transcending. Next Level.





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Our Capitals

Financial	Intellectual	Social & Relationship
Manufactured	Human	Natural

Our Strategic Thrusts

Operational Excellence	Commercial Excellence	Growth Delivery Excellence
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Principal Risks

Health, Safety and Environment Risk	COVID-19 Risk
Strategic Investment Risk	Market Risk
Project Execution Risk	Operational Risk
Cybersecurity Risk	Plant Turnaround Risk
Sustainability Risk	Feedstock and Utilities Risk
	Regulatory Risk



Material Matters

- Climate Change
- Environmental Stewardship
- Innovation & Product Stewardship
- New Plastics Economy (NPE)
- Workplace and Occupational Safety & Health (OSH)
- Supply Chain Management
- Community Engagement
- Talent Development
- Corporate Governance
- Strategy Purpose & Financial Resilience
- Human Rights
- Cybersecurity & Digitalisation
- Plant Operations

Key Stakeholder Groups

- Employees
- Customers
- Suppliers & Vendors
- Business Partners
- Shareholders & Investment Community
- Government & Regulators
- Communities
- Media

The coloured goals represent PCG's priority SDGs.

BASIS OF THIS REPORT

BALANCED REPORTING APPROACH

PETRONAS Chemicals Group Berhad (PCG or the Group) is one of the largest companies listed on Bursa Malaysia by market capitalisation and our activities are of interest to a wide range of stakeholders. As part of our commitment to good governance practices and transparency, we ensure that our performance reporting is presented in a holistic and balanced manner. This is communicated through PCG's Sustainability Report 2022, which also includes discussions surrounding sustainability and outlook to give our stakeholders insights into our future orientation over the short, medium and long term.

SCOPE AND BOUNDARY

This Sustainability Report (SR) covers the reporting period of 1 January 2022 to 31 December 2022, unless otherwise stated. Information presented relates to the activities of the Group comprising our subsidiaries, joint operations, joint ventures and associates. The subsidiaries included are based on the Malaysian Financial Reporting Standards (MFRS) 10 Consolidated Financial Statements and Companies Act 2016. This report provides information on all our manufacturing subsidiaries, where we have more than 50% ownership.

This report also adheres to the following local and international reporting frameworks:

KEY FRAMEWORKS APPLIED	IR	FR	SR
Integrated Reporting Framework (IRF) by Value Reporting Foundation (VRF) (previously known as International Integrated Reporting Council)	✓		
Malaysian Code on Corporate Governance (MCCG)	✓		
Main Market Listing Requirements (MMLR) issued by Bursa Malaysia	✓	✓	
Companies Act 2016 (CA 2016)	✓	✓	
Malaysian Financial Reporting Standards (MFRS)	✓	✓	
International Financial Reporting Standards (IFRS)	✓	✓	
Corporate Governance Guide - 4 th Edition issued by Bursa Malaysia	✓		
Global Reporting Initiative (GRI) Universal Standards 2021			✓
MMLR on Sustainability Reporting			✓
FTSE4Good Bursa Malaysia Index's Environmental, Social and Governance (ESG) indicators			✓
International Petroleum Industry Environmental Conservation Associations' (IPIECA) Sustainability Reporting Guidance for the Oil and Gas Industry - 4 th edition, 2020			✓
Dow Jones Sustainability Indices (DJSI)			✓
The United Nations Sustainable Development Goals (UN SDGs)			✓

BASIS OF THIS REPORT

LIMITED ASSURANCE STATEMENT

KPMG PLT has been engaged to provide assurance on the sustainability section in this report. The assurance is limited to environmental, occupational health and safety data, as listed in the following nine indicators:

1. Effluent Pollution Loading - Chemical Oxygen Demand (COD)
2. Scope 1 Greenhouse Gas (GHG) Emissions
3. Scope 2 GHG Emissions
4. Lost Time Injury Frequency (LTIF)
5. Total Recordable Occupational Illness Frequency (TROIF)
6. Total Non-Renewable Energy Consumption
7. Total Municipal Water Supplies (or from other water utilities)
8. Total Weight of Nitrogen Oxides (NOx) and Sulfur Oxides (SOx) Emissions
9. Tier 1 Process Safety Event (T-1 PSE)

MATERIALITY

The information presented in this report addresses matters that are most material to our business and stakeholders. We identify, prioritise and validate our material matters via a four-step materiality assessment. The report also addresses our response to 12 material matters that impact business and stakeholder value, as shown on pages 12 - 19. Plant Operations material matter is elaborated further under Operational Excellence in our Integrated Report 2022, pages 69 - 70.

FEEDBACK

PCG is committed to continuously improving our reporting quality, and we value input from our stakeholders in making these enhancements. Should you have any queries or feedback on this report, please contact us through the following:

Name : Zaida Alia Shaari
Position : Head of Investor Relations
Email : petronaschemicals_ir@petronas.com

FORWARD-LOOKING STATEMENTS

This report contains certain forward-looking statements relating to future performance. These statements and forecasts are based on current assumptions and circumstances, which could change, hence involve uncertainty. Various factors could cause actual results to differ materially from those expressed or implied by these forward-looking statements.

BOARD RESPONSIBILITY STATEMENT

The Board acknowledges its responsibility in ensuring the integrity of this Sustainability Report. It is in the Board's opinion that this report addresses all the issues that are material to the Group's ability to create value, and fairly presents the integrated performance of PCG Group. This report has been prepared in accordance with the Global Reporting Initiative Universal Standards 2021. This report was approved by the Board on 23 February 2023.

DATUK IR. (DR.) ABDUL RAHIM HASHIM

Chairman

IR. MOHD YUSRI MOHAMED YUSOF

Managing Director/
Chief Executive Officer (MD/CEO)

Our Reporting Suite

PCG is a global integrated chemicals company with a strong network of stakeholders. These stakeholders and the trust they have in PCG are important to our long-term growth. To build on this trust, we strive to provide clarity on our business direction, strategies and performance while articulating our material risks.



Integrated Report (IR) 2022

PCG's IR aims to provide our stakeholders a comprehensive overview and a balanced assessment of our financial and non-financial performance.

In reading this report, stakeholders will better understand our business and sustainability strategies, performance, our approach to governance and risks as well as our future orientation. The report demonstrates our commitment to accountability and seeks to strengthen the confidence of our stakeholders.

The governance section presents detailed reporting of our Corporate Governance activities via the Corporate Governance Overview Statement, Nomination and Remuneration Committee Report, Board Audit Committee Report, Board Sustainability and Risk Committee Report and Statement on Risk Management and Internal Control.

Financial Report (FR) 2022

Our FR consists of the Directors' Report, Audited Financial Statements and Independent Auditors' Report. The FR provides detailed financial disclosures to our shareholders, investors, analysts and other interested parties.

Sustainability Report (SR) 2022

PCG's SR details the disclosures of our performance in Economic, Environmental, Social and Governance (EESG) contexts. The report describes our initiatives and their outcomes that are aimed at creating positive and sustainable impacts for all our stakeholders.

MESSAGE FROM LEADERSHIP

SUSTAINABILITY AT THE CORE

DATUK IR. (DR.) ABDUL RAHIM HASHIM

Chairman

IR. MOHD YUSRI MOHAMED YUSOF

*Managing Director/
Chief Executive Officer
(MD/CEO)*



Dear Stakeholders,

As future generations will inherit the world we live in, we have a responsibility to protect and preserve it. We recognise the immense threat of climate change and the finite nature of the resources we consume in conducting our business. Therefore, we aim to be more than just a chemical company by weaving sustainability into every fibre of our business and be part of the solution.

We aspire to achieve net zero carbon emissions by 2050, which stands as our biggest challenge and requires us to transform the way we conduct our business. Beyond this, we aim to drive the transition to a circular economy and create positive impacts to society and nature by being a responsible and ethical partner to our stakeholders.

Our sustainability journey has improved remarkably over the years as we have achieved significant milestones in creating long-lasting positive impacts for people and the planet. We have embarked on our Net Zero Carbon Emissions (NZCE) 2050 Roadmap, which is aligned with PETRONAS Group's roadmap of achieving net zero carbon emissions by 2050. We have taken concrete steps towards safeguarding the human rights of our employees and external stakeholders by adopting PETRONAS Diversity & Inclusion (D&I) statement and enhancing the implementation of the Contractors Code of Conduct on Human Rights (CoCHR).

We are pleased to report that our sustainability performance continued to meet national and global Economic, Environmental, Social and Governance (EESG) benchmarks and indices during the year under review. We remain a constituent of the FTSE4Good Bursa Malaysia Index for the ninth consecutive year since its inception despite the higher and more demanding requirement by Bursa, especially in the area of climate change. In addition, we maintained our top 10% position on the Dow Jones Sustainability Indices (DJSI) for the Chemicals industry, and are the only Malaysian company in the DJSI World in 2022.

ENHANCING OUR SUSTAINABILITY AGENDA

In the year under review, we enhanced our Sustainability Agenda and made 'Sustainability at the Core' the cornerstone of our business. Underpinning our commitment to EESG considerations, the enhanced Sustainability Agenda aims to address all topics that are material to stakeholders as well as PCG.

One of the key enhancements we made was adopting a more strategic approach towards driving Sustainability Agenda in PCG. The enhancement created better alignment with international standards and frameworks such as the Global Reporting Initiative (GRI) Standards, Task Force on Climate-Related Financial Disclosures (TCFD) and the CDP (formerly the Carbon Disclosure Project).

Key Enhancements Sustainability at the Core

Sustained
**TOP 10%
POSITION IN
DJSI**
for second
consecutive
year

Signed
**FIVE
AGREEMENTS**
to advance New
Plastics Economy
(NPE)

Enhanced
**SUSTAINABILITY
AGENDA &
Governance
Structure**

Publication of
**TASK FORCE ON
CLIMATE-RELATED
FINANCIAL
DISCLOSURES
(TCFD)
REPORT**

We also enhanced the Sustainability Governance Structure at PCG to provide greater oversight and purview on sustainability matters at the Board and Management level by enhancing two committees. The Board Risk Committee is now the Board Sustainability and Risk Committee (BSRC) and the Risk Management Committee is the Sustainability and Risk Management Committee (SRMC).

We remain a constituent of the FTSE4Good Bursa Malaysia Index for the ninth consecutive year since its inception despite the higher and more demanding requirement by Bursa, especially in the area of climate change.

In addition to this, Sustainable Development Steering Committee (SDSC) was formed at all our Operating Units to effectively drive PCG's Sustainability Agenda across the organisation. Overall, these enhancements will provide a clear pathway for us to deliver our short, medium and long-term sustainability goals.

STEPPING UP CLIMATE ACTION

We have been taking urgent climate action to mitigate climate risks and adapt to climate change. Our NZCE 2050 Roadmap is aligned with the recommendations of the TCFD to better inform our stakeholders and investors of our climate-related risks and opportunities. In 2022, we published our first TCFD standalone report¹, which was critical for us to improve our own understanding of our long-term climate-related risks and opportunities and provide transparency on how we manage climate-related issues. The standalone report, which discloses our climate action in relation to the four pillars of TCFD—governance, strategy, risk management as well as metrics and targets, provides a clearer perspective of our NZCE progress. Beyond that, we recognise the need to collaborate with various stakeholders to execute the NZCE pathways for technological and nature-based solutions. We will also evaluate our alignment with the Science Based Targets initiatives (SBTi) to strengthen our commitment to NZCE 2050 Roadmap.

➤ PCG's first TCFD standalone report

¹ Read more about PCG's first TCFD standalone report at https://www.petronas.com/pcg/sites/default/files/2023-02/PCG%20TCFD%20Report%202022_Website.pdf



MESSAGE FROM LEADERSHIP

SUSTAINABILITY PERFORMANCE IN 2022

PCG performed well in its sustainability journey in 2022, with various robust initiatives implemented across the EESG pillars. Through operational optimisation, we managed to reduce 55,269 tonne CO₂e (tCO₂e) in 2022, accumulating a total reduction of more than 108,000 tCO₂e well ahead of our short-term target of reducing our Scope 1 and Scope 2 GHG emissions by 100,000 tCO₂e by 2024.

In effort to drive PCG's New Plastics Economy (NPE) agenda, PCG formed collaborations with four waste management companies and a potential technology partner to unlock the value of plastic waste and advance towards NPE.

Our sustainability journey was made even more meaningful with the completion of the Perstorp Group's acquisition, a global leader in sustainable specialty chemicals, renowned for its Pro-Environment products and solutions used by and required for the sustainable transformation of many industries and end products.

In the year under review, PCG's top management successfully undertook and delivered key sustainability driven goals and KPIs, notably in retaining our position in the DJSI World Index and the publication of our first TCFD report.

Perstorp Group's holistic and innovative approach to become Finite Material Neutral by switching to alternative resources that are abundant and/or renewable, or closing loops, and recycling or reusing those that are finite will reduce environmental impact. These approaches are in line with PCG's aim for positive environmental and social contributions. We are confident that the acquisition of Perstorp Group will accelerate our sustainability journey towards a circular economy and positively impact our NZCE's aspirations.

As a progressive organisation, diversity is a key consideration at PCG, and we respect the rights of all our employees regardless of their background. We champion the role of women in leadership and are pleased to share that we have increased the number of female Board members and attained 33% female representation on the Board in 2022.

In 2022, we continued to organise our yearly flagship programme, 'Be Green', by collaborating with Malaysia's Ministry of Education, local government agencies, waste concessionaires and local recyclers. Through this initiative, which saw the participation of





selected students, teachers and local communities, we successfully collected almost 64,000 kg of recyclable waste.

PCG's Health, Safety and Environment (HSE) performance is generally comparable to, and in certain cases is better than industrial standards. For instance, our Lost Time Injury Frequency (LTIF) rate, which stands at 0.17, better than the industrial standard of 0.22. However, there are still a lot of opportunities to further improve PCG's HSE performance. Despite our best efforts, we recorded one major Loss of Primary Containment (LOPC) incident in 2022.

Recognising this, we continuously strive to improve our HSE performance across our operating units. This includes enhancing our Felt Leadership Programme and contractor management. In addition, we continue to drive our HSE Generative Culture initiatives to realise our "Strive for Zero, Zero is Possible" campaign.

MOVING FORWARD

We aim to strengthen our sustainability journey by implementing strategic measures that involve both internal and external stakeholders. Internally, we will establish roadmaps in other sustainability areas and continue to guide all operating units in developing their own targets to support PCG's enhanced Sustainability Agenda. To this end, we aim for our manufacturing plants to accelerate operational optimisation to reduce Scope 1 and 2 carbon emissions. We will also continue to nurture a culture of sustainability across the Group to positively impact EESG.

Recognising that sustainability is a multistakeholder effort, we will continue to establish partnerships with key stakeholders to advance our sustainability goals, particularly in circular economy. In the next three to five years, we aim to further strengthen our foothold in the NPE and commence our first plastic waste to circular naphtha conversion plant. The plant will subsequently be used to produce circular polymer, as part of realising PCG's aspiration of recovering 100% of plastic waste equivalent to domestic sales by 2030.

MESSAGE FROM LEADERSHIP

In 2023, we will complete our baseline assessment of Scope 3 emissions and identify opportunities to reduce our carbon emissions across our supply chain. Moving forward, we aspire to foster collaborations and provide support to encourage suppliers to commit to carbon emissions reduction to truly embed sustainability in our value chain.

We foresee new challenges in the area of regulations and sustainability requirements as we enter European markets and their mature EESG landscape following the acquisition of Perstorp Group. We will endeavour to align the disclosures of PCG's and Perstorp Group's data and targets to ensure compliance with all reporting requirements and global EESG benchmarks.

We will remain committed to reducing greenhouse gas (GHG) emissions and contributing to a sustainable future for all. Moreover, we will continue to step up our climate action and further invest in low carbon technology and renewables to achieve our NZCE 2050 target.

ACKNOWLEDGEMENTS

Our journey of value creation would not have been possible without the participation of and feedback from both internal and external stakeholders. We want to record our sincere appreciation to the Board for its valuable insights and guidance on sustainability matters. We would also like to thank the Management and our employees for their dedication in materialising our enhanced Sustainability Agenda and aspirations. The pursuit to create long-lasting positive EESG impacts is indeed a collective effort, and on this note, we would like to thank our external stakeholders for their continuous support to help make our sustainability journey possible.



OVERVIEW OF PCG

STATEMENT OF PURPOSE

A progressive energy and solutions partner enriching lives for a sustainable future

VISION

To be the preferred chemical company providing innovative customer solutions

PCG is the chemical arm of PETRONAS and Malaysia's leading integrated chemicals producer. We operate in the manufacturing, marketing and selling of a diversified range of petrochemicals. We were established more than 30 years ago, and publicly listed on 26 November 2010.

Our Operational Excellence and Commercial Excellence have propelled us to become one of the largest integrated chemicals producers in Southeast Asia. We currently operate from 19 manufacturing sites in Malaysia, the Netherlands, Sweden, Singapore, Germany, Italy, China, the United States of America (USA) and Canada. The Group's Growth Delivery Excellence has been a driving force in expanding into derivatives and specialty chemicals to future-proof the business.

As we realise our vision of becoming 'The Preferred Chemical Company Providing Innovative Customer Solutions', we remain focused on creating positive Economic, Environmental and Social (EES) impacts. With sustainability at the centre of all our decisions, we are on track to achieving net zero carbon emissions by 2050.

SHARED VALUES



Our shared values are deeply embedded in our culture to ensure we operate with integrity at all times while contributing to the well-being of people in every nation where we have a presence.

OUR STRATEGY

TWO-PRONGED STRATEGY

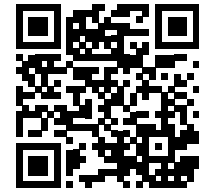
FIRST-PRONG

Sustain strength in basic petrochemicals through Operational Excellence & Commercial Excellence in Maximising Cash Generation from existing business

SECOND-PRONG

Selectively diversify into derivatives, specialty chemicals and solutions through Growth Delivery Excellence via Expanding Core & Stepping-out opportunities

To access more information on our product portfolio, log on to <https://www.petronas.com/pcg/our-business> or scan the QR code:



MARKET CAPITALISATION:
As at 31 December 2022

RM68.8 billion

TOTAL ASSETS BASE:

RM55.4 billion

PRODUCTION CAPACITY:

15.4 million tpa

ONE OF THE

LARGEST

INTEGRATED CHEMICALS PRODUCERS IN SOUTHEAST ASIA

DOW JONES SUSTAINABILITY INDICES (DJSI) 2022:


TOP 10 COMPANIES

DJSI WORLD (CHEMICALS INDUSTRY)

9-YEAR CONSTITUENT OF

FTSE4GOOD

BURSA MALAYSIA INDEX

 For more information on our presence and integrated product value chain, please turn to page 10-11 of integrated report.

WHAT WE DO



OUR STRENGTHS

As Malaysia’s leading integrated chemicals producer, we believe that our strength is premised on our belief that long-term business success goes hand-in-hand with a strong respect for sustainable practices. While our Two-Pronged Strategy and Sustainability Agenda provide both the framework and context for this to happen, it is only through diligent execution that will see results. Over the years, we have been able to be resilient, agile and adaptable even during the most testing of times, as we consistently invested into strengthening both physical and human capabilities, ensured that we are doing the best we can to protect the environment and adequately managed our risks and opportunities through robust governance structures.

ECONOMIC

- Integrated manufacturing facilities and infrastructure
- World-class Health, Safety and Environment (HSE) standards and plant performance
- Diversified product portfolio to meet current and future needs
- Strong customer relationships
- Reputable industry and market leader
- Capacity growth and portfolio expansion into derivatives and specialty chemicals
- Commitment to sustainable investments
- Strong returns and capacity to fund future growth
- Attractive dividend policy with a payout ratio of around 50% of Group Profit After Tax and Non-Controlling Interests

ENVIRONMENTAL

- Established Net Zero Carbon Emissions (NZCE) 2050 roadmap
- International recognition for sustainable business practices
- Efficient resource management

SOCIAL

- Competent talent equipped with right competencies and leadership traits for growth and portfolio expansion
- Diverse and inclusive workforce creating a more progressive and creative work environment that delivers better results

GOVERNANCE

- Recognition of high standards of good corporate governance



SUSTAINABILITY STRATEGY

Sustainability is the core of our business management and operations as we seek to create value for people and the planet. We are committed to support the transitioning to a low-carbon economy through our Net Zero Carbon Emissions (NZCE) 2050 Roadmap.

Our Sustainability Agenda has been crucial in enabling us to drive sustainability across our organisation. Serving as the overarching framework, our Sustainability Agenda is anchored on the four key sustainability pillars, Economic, Environmental, Social and Governance (EESG), and consists of key focus areas. It is also mapped against 13 selected UN Sustainable Development Goals (UN SDGs), which encompassed all the four pillars.

We review our Sustainability Agenda from time to time to stay relevant and to align with the evolving developments of the sustainability landscape. Refreshing our Sustainability Agenda also allows us to meet increasing stakeholder demands and improve our EESG ratings. As such, our robust Sustainability Agenda has led to the improvement of PCG's ranking on DJSI, which rose significantly from 81st in 2018 to top 10 in 2021. The top 10 ranking was maintained in 2022.

In 2022, we enhanced our Sustainability Agenda to adopt a more comprehensive sustainability approach. One of the main enhancements was the addition of "Sustainability at the Core" aspiration to better embed sustainability across our organisation. Our key focus areas were reviewed, renamed and consolidated to ensure that the Sustainability Agenda addresses all the key topics that are material to us and our stakeholders.

The enhancements included:

ENVIRONMENT

- Consolidation of energy, waste and water under Environmental Stewardship to adopt a holistic approach for the Sustainability Agenda
- Realignment of New Plastics Economy (NPE) under Growth Delivery Excellence to drive growth in circularity
- Addition of Biodiversity Conservation as a focus area to meet increasing stakeholder expectations

ENHANCING OUR SUSTAINABILITY AGENDA



Task Force on Climate-Related Financial Disclosures

United Nations Human Rights Council

SUSTAINABILITY STRATEGY

SOCIAL

- Addition of Employee Well-being and Talent Development as a focus area to meet increasing stakeholder expectation
- Elevating Corporate Social Responsibility to Social Impact to measure the direct outcome from Corporate Social Responsibility initiatives
- Restructuring of Social Risk Assessment to Human Rights to adopt a holistic approach for the Sustainability Agenda

GOVERNANCE

- Addition of standards and ratings that PCG complies with, to demonstrate PCG's commitment and alignment to well-established standards

SUSTAINABILITY AT THE CORE

ENVIRONMENT

Environmental Stewardship & Resources Efficiency

Net Zero Carbon Emissions

Environmental Stewardship

Biodiversity Conservation

SOCIAL

Social Responsibility

Human Rights

Employee Well-being & Talent Development

Social Impact

GOVERNANCE



FTSE4Good Bursa Malaysia

Global Reporting Initiative

Dow Jones Sustainability Indices

The CDP (formerly the Carbon Disclosure Project)

MATERIAL MATTERS



A solid understanding of industry trends, operating challenges and stakeholder expectations is essential to delivering long-term value. With that, we devise our strategies according to the material aspects of business growth and stakeholders' needs. These material matters guide our Board and leadership team in building the company towards sustainable growth.

MATERIALITY METHODOLOGY

At PCG, we conduct an extensive materiality assessment involving internal and external stakeholders once every two years to ensure that our sustainability material matters remain relevant and timely. Our recent in-depth materiality assessment was conducted in 2021 and included an online survey as well as interviews with stakeholders. As a result, 13 material matters were identified, of which five were of high priority, as shown in the materiality matrix below.

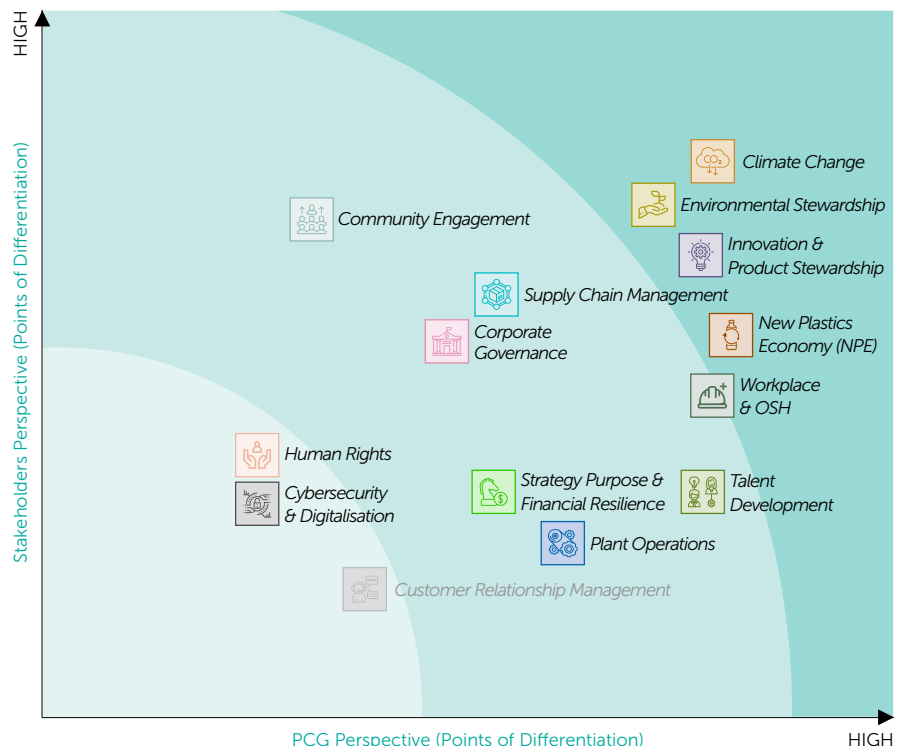
Material Matters

- | | | |
|----------------------------------|---|-----------------------------------|
| Climate Change | Supply Chain Management | Plant Operations |
| Environmental Stewardship | Community Engagement | Human Rights |
| Innovation & Product Stewardship | Talent Development | Cybersecurity & Digitalisation |
| New Plastics Economy (NPE) | Corporate Governance | Customer Relationship Management* |
| Workplace & OSH | Strategy Purpose & Financial Resilience | |

* Read more on page 13 of this report.

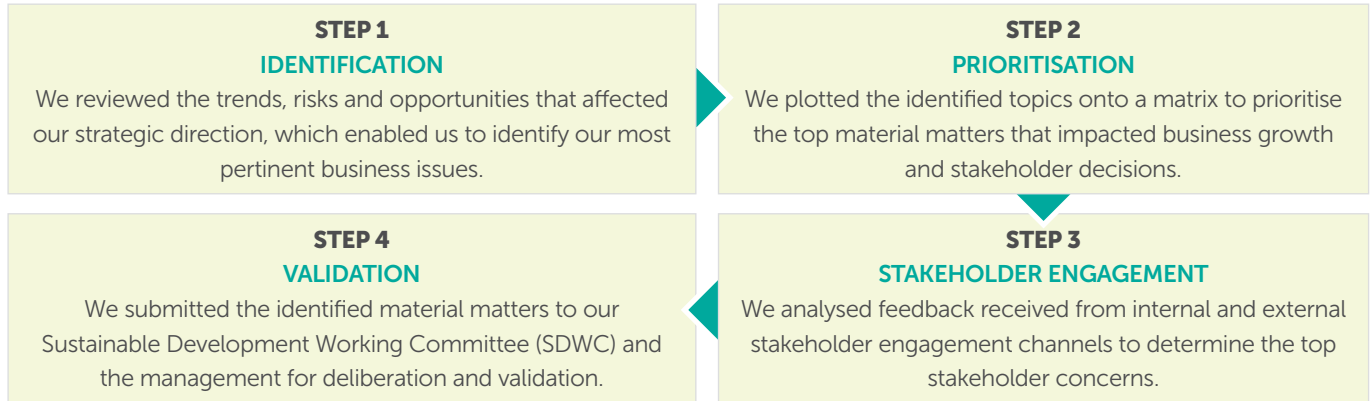
The Materiality Matrix impacts value creation in PCG within the three areas according to the colour shades below:

- **Points of Differentiation**
Topics where PCG can lead
- **Value Enhancement**
Topics that can add operational value to PCG
- **Value Protection**
Foundation topics for PCG



MATERIAL MATTERS

The materiality assessment in 2021 consisted of four key steps:



Material matters are key sustainability issues from the Economic, Environmental, Social and Governance (EESG) pillars that are significant to our business and stakeholders. Identifying material matters enable us to better understand industry trends and to identify the risks and opportunities of the material matters.

In 2022, we reviewed the 14 material matters through a desktop validation to ensure that our material matters were updated from our last full materiality exercise in 2021. The material matters were aligned with local, regional and global industry peers, as well as national and international guiding principles such as those set by the Sustainability Accounting Standards Board (SASB) Chemical Industry, International Petroleum Industry Environmental Conservation Association (IPIECA) and UN Sustainable Development Goals (UN SDG). We also aligned our material matters with the 11 common material matters listed by Bursa Malaysia in its enhanced Main Market Listing Requirement’s (MMLR) sustainability disclosure requirements.

While the validation process showed that almost all of our material matters are aligned with industry peers and the selected guiding principles, we incorporated Customer Relationship Management (CRM) into Innovation & Product Stewardship. This is to reflect our commitment to go beyond providing the usual customer relationship management and our focus on providing innovative and bespoke products and solutions that meet customer needs. In conclusion, we retained 13 material matters, which were presented to the SDWC and the management before they were endorsed by the Board.

PCG’S MATERIAL MATTERS FOR 2022









GOVERNANCE


















Corporate Governance

PCG'S MATERIAL TOPICS









To provide a comprehensive overview of our material matters, we mapped the material matters to their impacts on the Group and the stakeholder groups affected. The mapping of the material matters has been enhanced to include impact, response and opportunity.

Sustainability Pillars	Material Topic	Impact on PCG	PCG's Response to the Matter	Opportunities	Stakeholder Groups Affected	SDGs
ECONOMIC	Innovation & Product Stewardship 	<p>Positive:</p> <ul style="list-style-type: none"> Enables us to maintain our competitive edge, build meaningful relationships with customers and retain customer loyalty <p>Negative:</p> <ul style="list-style-type: none"> The Company will lose its competitive edge, its customers and the ability to thrive 	<ul style="list-style-type: none"> Co-creating application solutions with customers and executing product Research and Development (R&D) programmes Diversifying derivatives and specialty chemicals to expand the business through Research & Technology (R&T) programmes to keep up with market demands Incorporating product care and management with the product's R&D process to ensure specialty chemicals are handled safely and sustainably developed Providing various customer segments unique value propositions that are relevant to their needs Ensuring the provision of reliable and efficient services to customers through utilisation of digital platforms 	<ul style="list-style-type: none"> Expanding our product line enables our customers to attract new markets and build their business The increasing demand for sustainable products expands our portfolio and inspires innovation Forming strategic partnerships with customers will expand the local and international market 		
	Supply Chain Management 	<p>Positive:</p> <ul style="list-style-type: none"> Creates long-lasting value for all stakeholders through a well-managed supply chain <p>Negative:</p> <ul style="list-style-type: none"> Increases overall risks and costs, including reduced customer satisfaction and business opportunities 	<ul style="list-style-type: none"> Ensuring our suppliers are reliable by conducting a structured risk assessment to make sure that they are free from HSE and EESG risks Procurement Governance is to ensure fair and transparent process to secure the best value in procurement of goods and services Pursuing bio-based products with carbon neutral feedstock such as Bio-MEG Influencing our supply chain to apply green practices in transportation such as the use of AireBlue 	<ul style="list-style-type: none"> Building strong partnerships with suppliers will enhance downstream supply and increase productivity Suppliers with the expertise and skills will help us maintain our standard of HSE performance Implementing a solid procurement governance embedded with EESG elements will attract credible and commercially attractive vendors to the business 		










PCG'S MATERIAL TOPICS

Sustainability Pillars	Material Topic	Impact on PCG	PCG's Response to the Matter	Opportunities	Stakeholder Groups Affected	SDGs
ECONOMIC	Strategy Purpose & Financial Resilience 	<p>Positive</p> <ul style="list-style-type: none"> Improves Company's sustainable growth and boosts employee morale <p>Negative:</p> <ul style="list-style-type: none"> Affects the overall success of the Company, leading to decreased competitive advantage, financial instability and loss of investors 	<ul style="list-style-type: none"> Ensuring the implementation of our Two-Pronged Strategy through three strategic thrusts and incorporating EESG elements into our growth levers Prioritising projects that have strategic benefits as well as potential projects with mid-term prospects Identifying sustainable, technology and products that will allow us to meet the demands of our ever-expanding portfolio 	<ul style="list-style-type: none"> Strengthening our strategies and finances will increase our stakeholder's trust in us Having strong business fundamentals is key to attracting investment and funding for projects 	   	   
	Plant Operations 	<p>Positive</p> <ul style="list-style-type: none"> Increases Operational Excellence and efficiency <p>Negative</p> <ul style="list-style-type: none"> Exposes the Company to disrupted operations, which will affect productivity Exposes the Company to financial loss 	<ul style="list-style-type: none"> Ensuring a safe workplace at plant operations and incorporating a generative culture to encourage compliance to HSE requirements and promote excellence Intensifying reliability programmes through identification of plant threats and alignment of Asset Life Study (ALS) findings with maintenance strategies and execution of reliability projects with enhancement using digital solutions Integrating activities to optimise plant operations through establishing multiple platforms by all parties across all levels to discuss, collaborate and align their activities within the value chain to minimise impact of external challenges on plant operations 	<ul style="list-style-type: none"> The implementation of HSE Excellence programmes will ensure a safe working environment for all We will be able to achieve Operational Excellence through digitalisation, building solid partnerships with feedstock, utilities and chemical suppliers, and resolving plant issues to improve their reliability Integration of activities optimises plant operations and enables higher production volume. The cash generated will be invested to fund our growth investments 	   	  










PCG'S MATERIAL TOPICS

Sustainability Pillars	Material Topic	Impact on PCG	PCG's Response to the Matter	Opportunities	Stakeholder Groups Affected	SDGs
ECONOMIC	Cybersecurity & Digitalisation 	<p>Positive</p> <ul style="list-style-type: none"> Strengthens business growth and investor confidence Builds trust among stakeholders <p>Negative</p> <ul style="list-style-type: none"> Exposes the Company to cyber risk, which could lead to legal consequences and affect the Company's reputation 	<ul style="list-style-type: none"> Adoption of Secure by Design approach for all digital projects to ensure systems are secured and low risk before implemented into production environment Compliance towards Enterprise Cybersecurity Governance Framework that covers Information Technology and Operational Technology domains Ensuring there is a governance framework to support established work processes that are in operation Enabling full utilisation and assurance by identifying suitable digital tools via Cybersecurity Business Impact Assessment (CBIA) and Legal & Regulatory Assessment (CSBIA-LRA), Third Party Assurance, Cybersecurity Business Risk Assessment (CSBRA) and by decommissioning legacy systems 	<ul style="list-style-type: none"> Providing cybersecurity assurance will cultivate stakeholders' trust in our secure and sustainable business operations Digitalisation enables better control and management of our operations and provides better services to customers and increases efficiency 		
	Climate Change 	<p>Positive:</p> <ul style="list-style-type: none"> Reduces the Company's carbon footprint Strengthens Company's climate resilience <p>Negative:</p> <ul style="list-style-type: none"> Exposes Company to various climate risks, which can affect the Company's financial growth and operations in the long term 	<ul style="list-style-type: none"> Ensuring our climate-related risks and opportunities are well-managed with the support of the PETRONAS Climate Change Commitment and guided by the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations Enforcing Net Zero Carbon Emissions (NZCE) 2050 Roadmap across the board 	<ul style="list-style-type: none"> Effective management of our carbon footprint will improve stakeholder trust and public perception Improving our energy efficiency ensures better performance and cost savings Strengthening our positioning in low carbon solutions market will allow us to meet rising demands 		  











PCG'S MATERIAL TOPICS

Sustainability Pillars	Material Topic	Impact on PCG	PCG's Response to the Matter	Opportunities	Stakeholder Groups Affected	SDGs
ENVIRONMENTAL	Environmental Stewardship 	<p>Positive:</p> <ul style="list-style-type: none"> Reduce the Company's environmental footprint <p>Negative:</p> <ul style="list-style-type: none"> May cause financial loss, regulatory fines, disruptions of operations and damage to the Company's reputation 	<ul style="list-style-type: none"> Implementing a Biodiversity & Ecosystem Service (BES) risk profiling process to identify the risk to biodiversity and ecosystem services from our operations Investing in new technology to reduce material consumption, waste production and wastewater discharge 	<ul style="list-style-type: none"> Avoiding, minimising, restoring and offsetting impacts to biodiversity Reducing waste and managing our resources will reduce operational costs Environmental initiatives will draw interest from investors and provide more avenues for funding 		
	New Plastics Economy (NPE) 	<p>Positive:</p> <ul style="list-style-type: none"> Enables PCG to lead the industry in sustainability Reduces and mitigates negative environmental and social impacts from PCG's products <p>Negative:</p> <ul style="list-style-type: none"> Affects the Company's sustainability and long-term financial growth 	<ul style="list-style-type: none"> Establishing strategic collaborations with innovative solutions to minimise the use of plastic Developing tactical partnerships to develop an operational and viable waste recovery system Organising awareness campaigns to promote change and correct mindsets Raising awareness on the critical state of the environment by highlighting the 3Rs, Social Impact activities and environmental campaigns 	<ul style="list-style-type: none"> Our progress in NPE will further strengthen our positioning as the leader in Malaysia's NPE Converting plastic waste into circular feedstock will improve our resources and create new business opportunities 		
SOCIAL	Workplace and Occupational Safety & Health (OSH) 	<p>Positive:</p> <ul style="list-style-type: none"> Boosts employee morale and productivity <p>Negative:</p> <ul style="list-style-type: none"> Exposes the Company to regulatory, legal and reputational risks Increases operational costs due to workplace accidents and injuries 	<ul style="list-style-type: none"> Ensuring we reach our goals for HSE by reinforcing the Felt Leadership programme, reviving Focused Learning (Learning from Incidents) and adopting HSE Balance of Consequence Inculcating a culture of HSE Excellence by enforcing a robust HSE framework Improving our OSH and environmental practices via the Mandatory Control Framework 	<ul style="list-style-type: none"> Prioritising health and safety will attract and retain top talents in the industry Our commitment towards OSH will appeal to investors and boost our brand as one that is safe and reliable 		

PCG'S MATERIAL TOPICS

Sustainability Pillars	Material Topic	Impact on PCG	PCG's Response to the Matter	Opportunities	Stakeholder Groups Affected	SDGs
SOCIAL	Community Engagement 	<p>Positive:</p> <ul style="list-style-type: none"> Boosts the Company's image Enables Company to contribute to sustainable development by fulfilling community needs <p>Negative:</p> <ul style="list-style-type: none"> May lead to loss of investors, disharmony in the community and affect the Company's reputation 	<ul style="list-style-type: none"> Supporting communities through educational programmes and other initiatives to educate them on NPE and safe handling of chemicals Ensuring the protection and rehabilitation of our environment through education and awareness programmes Providing assistance to communities during disasters such as floods and COVID-19 	<ul style="list-style-type: none"> Social responsibility programmes will safeguard our reputation as one that cares for people and the environment Constant engagement with the community will give us better insight to the execution of significant projects such as NPE 		
	Talent Development 	<p>Positive:</p> <ul style="list-style-type: none"> Boosts employee morale and productivity <p>Negative:</p> <ul style="list-style-type: none"> Lack of succession planning, reduced capabilities and inadequate manning 	<ul style="list-style-type: none"> Implementing robust succession plans to ensure continuous pipeline of ready talent Providing employees with relevant technical leadership skills through an integrated talent development programme to deliver business results Frequent engagement to keep employees motivated and connected Accelerating our efforts to recruit talents with core and niche competencies to support our operations and propel our growth 	<ul style="list-style-type: none"> Talent development priorities focusing on developing future-ready talents with agile and innovative mindsets 		
	Human Rights 	<p>Positive</p> <ul style="list-style-type: none"> Boosts employee morale, retains talent and improves organisational reputation <p>Negative</p> <ul style="list-style-type: none"> Exposes the Company to regulatory, legal and reputational risks, which would affect the Company's license to operate 	<ul style="list-style-type: none"> Ensuring the PETRONAS Human Rights Commitment, as underscored by the UN's Guiding Principles on Business and Human Rights, is embedded in all employees, contractors and stakeholders Taking care of employees by providing competitive salaries, benefits and ensuring all that we do complies to the relevant labour laws to protect the rights of our employees Ensuring that all employees are well versed on the importance of Human Rights Management through the e-learning module Establishing the Diversity & Inclusion Framework to promote a more inclusive and equitable society 	<ul style="list-style-type: none"> Protecting the rights of those we employ will draw top quality talents Enforcing human rights practices will emphasise our role as a responsible corporate citizen Cultivating an inclusive and positive work culture that creates a more agile and creative work environment that delivers superior results 		

PCG'S MATERIAL TOPICS

Sustainability Pillars	Material Topic	Impact on PCG	PCG's Response to the Matter	Opportunities	Stakeholder Groups Affected	SDGs
GOVERNANCE	<p>Corporate Governance</p> 	<p>Positive:</p> <ul style="list-style-type: none"> Improves Company's sustainable growth and boosts employee morale Increases Operational Excellence and efficiency Safeguards the Company's reputation <p>Negative:</p> <ul style="list-style-type: none"> Affects the Company's long-term business growth Exposes the Company to financial, legal and reputational risks Reduces shareholder value and overall decline in efficiency 	<ul style="list-style-type: none"> Ensuring that our operations comply to the Malaysian Code on Corporate Governance (MCCG) and other guidelines relevant in markets where we operate Increasing the diversity and representation of the Independent Directors of the Board Ensuring our compliance to PETRONAS' Code of Conduct and Business Ethics (CoBE) and reinforcing CoBE through regular trainings 	<ul style="list-style-type: none"> Business transparency will enable us to execute business plans and strategies efficiently Practicing good governance instils a high-performance work culture 	       	

STAKEHOLDER ENGAGEMENT



EMPLOYEES

Employees are the backbone of the Group. Their competencies, leadership and commitment are central to achieving our strategic priorities.

Number of Employees:

6,288



CUSTOMERS

The trust and support of customers is the reason we exist. Our ability to deliver innovative products and solutions that meet their evolving needs is key to our sustainable growth.

**Number of product stewardship
and technical seminars:**

13



SUPPLIERS & VENDORS

A resilient value chain is essential for our continuous operations. Therefore, we create strong relationships with our suppliers and vendors that benefits everyone across the supply chain.

**Percentage of local* suppliers
and vendors:**

80%

* local suppliers of Malaysian operations



BUSINESS PARTNERS

We form strategic partnerships and joint ventures (JVs) with other industry players to exchange ideas and expertise, as well as further expand our business.

Number of JVs:

13



SHAREHOLDERS & INVESTMENT COMMUNITY

As essential providers of financial capital, we regularly engage with our shareholders and investors so that they can make fair and informed decisions.

Number of Shareholders:

18,901 (as at 31 December 2022)



GOVERNMENT & REGULATORS

With a wide international presence, we work closely with relevant authorities to navigate regulatory challenges, ensure consistent compliance and attract Foreign Direct Investments.

Number of Engagement Sessions:

58*

* Data only represent high level engagement in both local and international level



COMMUNITIES

The long-term health of our business is linked to the health of the communities we serve. We strive to create meaningful and inclusive contributions for everyone impacted by our operations.

Number of volunteer hours

1,683



MEDIA

Our media partners help share essential and transparent information with our other stakeholders, such as the public, investors, regulators and others, thus protecting our business from misinformation and unfair perceptions.

Media mileage

RM18.7 million

STAKEHOLDER ENGAGEMENT

Our long history in the chemicals industry is built on the trust and support of our stakeholders. Therefore, an essential aspect of our sustainability efforts involves maintaining open communication with our key stakeholders to keep them informed and updated, while understanding how to create value for them in the many years to come. Our strategy and decisions are based on their feedback and expectations.

FREQUENCY OF ENGAGEMENT

<ul style="list-style-type: none"> ◆ Daily ◆ Weekly ◆ Monthly ◆ Alternate Month ◆ As Required 	<ul style="list-style-type: none"> ◆ Quarterly ◆ Annually ◆ Bi-Annually ◆ Bi-Monthly
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QUALITY OF ENGAGEMENT

No existing relationship

Relationship established, but much work to be done to improve the quality of relationship

Relationship established, value-generating connection, but with some room for improvement

Good-quality, mutually beneficial relationship, with some room for improvement

Strong relationship of mutual benefit

EMPLOYEES

ENGAGEMENT PLATFORM

- Virtual townhalls ◆
- Digital communication ◆
- Staff engagement and appreciation sessions ◆
- HSE campaigns ◆
- Organisational Culture Survey ◆

CUSTOMERS

ENGAGEMENT PLATFORM

- Meetings with customers ◆
- Customer satisfaction surveys ◆
- Feedback management system ◆
- Customer appreciation programmes ◆
- Product stewardship seminars ◆

WHY WE ENGAGE

We have 6,288 skilled and dedicated employees to drive our business objectives and execute our world class manufacturing operations.

KEY CONCERNS

- Health, safety and environment
- Cybersecurity
- Well-being and mental health
- Work-life balance
- Human rights

RESPONSE

- Implement more initiatives on employee's well-being and mental health
- Provide a safe working environment to our employees
- Offer flexible working arrangements

WHY WE ENGAGE

Our customers play an integral role in our business growth. In order to deliver quality value-added products, we need to understand their expectations which will, in turn, build customer loyalty.

KEY CONCERNS

- Product quality and delivery
- Plastic and waste management
- Product pricing and credit terms

RESPONSE

- Design distinct value propositions for each customer segment
- Integrate product stewardship into the Research & Development process to develop safe and sustainable products
- Collaborate with strategic partners to create high performance and competitive products



STAKEHOLDER ENGAGEMENT

SUPPLIERS & VENDORS

ENGAGEMENT PLATFORM

- Regular meetings ■
- Day-to-day interactions ■
- Forums ■
- Site visits ■

BUSINESS PARTNERS

ENGAGEMENT PLATFORM

- Periodic meetings ■
- Day-to-day interactions ■
- Strategic dialogues ■
- Conferences and forums ■

SHAREHOLDERS & INVESTMENT COMMUNITY

ENGAGEMENT PLATFORM

- Investors and analysts briefings ■
- Meetings and conferences ■
- Annual reports ■
- Annual general meetings ■
- Announcements via Bursa Malaysia ■
- Company website ■

WHY WE ENGAGE
Our suppliers and vendors support us in delivering high-quality products and services, which will in turn enable us to create value for our own products. This relationship means we also provide suppliers with the right support to thrive in the market.

KEY CONCERNS

- Health, safety and environment
- Human rights
- Ethical business practices
- Sustainability in supply chain

RESPONSE

- Implement stringent policies that protect suppliers' well-being
- Provide robust grievance mechanisms for suppliers
- Incorporate environmental and social standards in our procurement process
- Conduct governance-related sharing sessions

WHY WE ENGAGE
Our business partnerships - largely created through joint ventures, joint operations and associates - provide beneficial support to the growth of all respective businesses.

KEY CONCERNS

- Company performance
- Ethical business practices
- Good governance
- Continuous value creation

RESPONSE

- Closely monitor and build upon partnership benefits
- Strengthen good governance by leveraging each shareholders' governance practice
- Provide a reliable supply of feedstock to partner ventures

WHY WE ENGAGE
With the financial capital from our shareholders and investors enabling our sustainable growth, we are required to maintain their confidence in our ability to generate sustainable financial returns in a responsible manner.

KEY CONCERNS

- Sustainable value creation
- Company's operational, commercial and financial performance
- Growth project progress and deliverables
- Environmental management
- Corporate governance

RESPONSE

- Access to board members and senior management
- Increase communication frequency utilising available communication platforms such as conference calls, virtual conferences and one-on-one meetings
- Improve communication materials including easy website navigation
- Ensure compliance of disclosure guidelines
- Timely disclosure on key topics

STAKEHOLDER ENGAGEMENT

GOVERNMENT & REGULATORS

ENGAGEMENT PLATFORM

- Regular reporting to relevant agencies ◆
- Joint working committee with state governments ◆
- Regular meetings and briefings with agencies/regulators ◆

COMMUNITIES

ENGAGEMENT PLATFORM

- Social Impact programmes ◆
- Briefings and engagement with local communities ◆

MEDIA

ENGAGEMENT PLATFORM

- Virtual press conferences ◆
- Press releases ◆ ◆

WHY WE ENGAGE
Our strong relationship with the government and regulators ensures that we operate within legal requirements and stay on top of any of the changing regulations.

KEY CONCERNS

- Regulatory compliance
- Environmental management

RESPONSE

- Establish transparent communication with relevant bodies
- Collaborate with relevant agencies with common objectives

WHY WE ENGAGE
Our operations may directly or indirectly impact communities; therefore, community engagement is important for us to understand their concerns. This will also highlight our social citizenship and instil public trust.

KEY CONCERNS

- Safety of plant operations
- Quality of air and water emissions
- Jobs and other income-generating opportunities

RESPONSE

- Adopt stringent HSE best practices at PCG manufacturing plants
- Regularly monitor air and water quality surrounding operations
- Invest in community development programmes

WHY WE ENGAGE
The media is an integral communication link between our business and our stakeholders. It is a key player when it comes to distributing significant information about our business and brand reputation.

KEY CONCERNS

- Business performance
- Environmental management and sustainability efforts
- New innovation and technology

RESPONSE

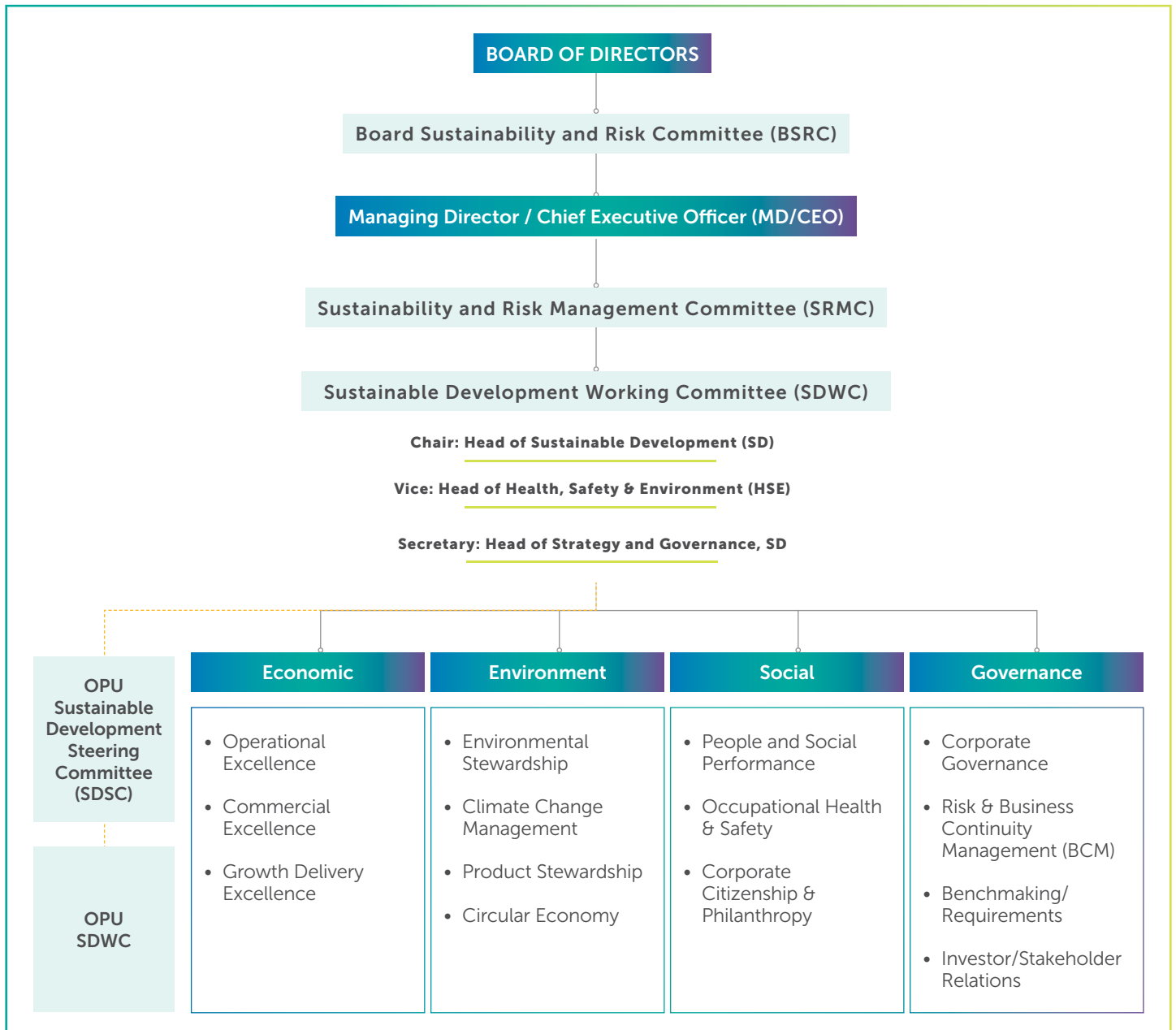
- Foster open and transparent communication with the media
- Provide a speedy response to media enquiries on business developments
- Organise rapport-building activities



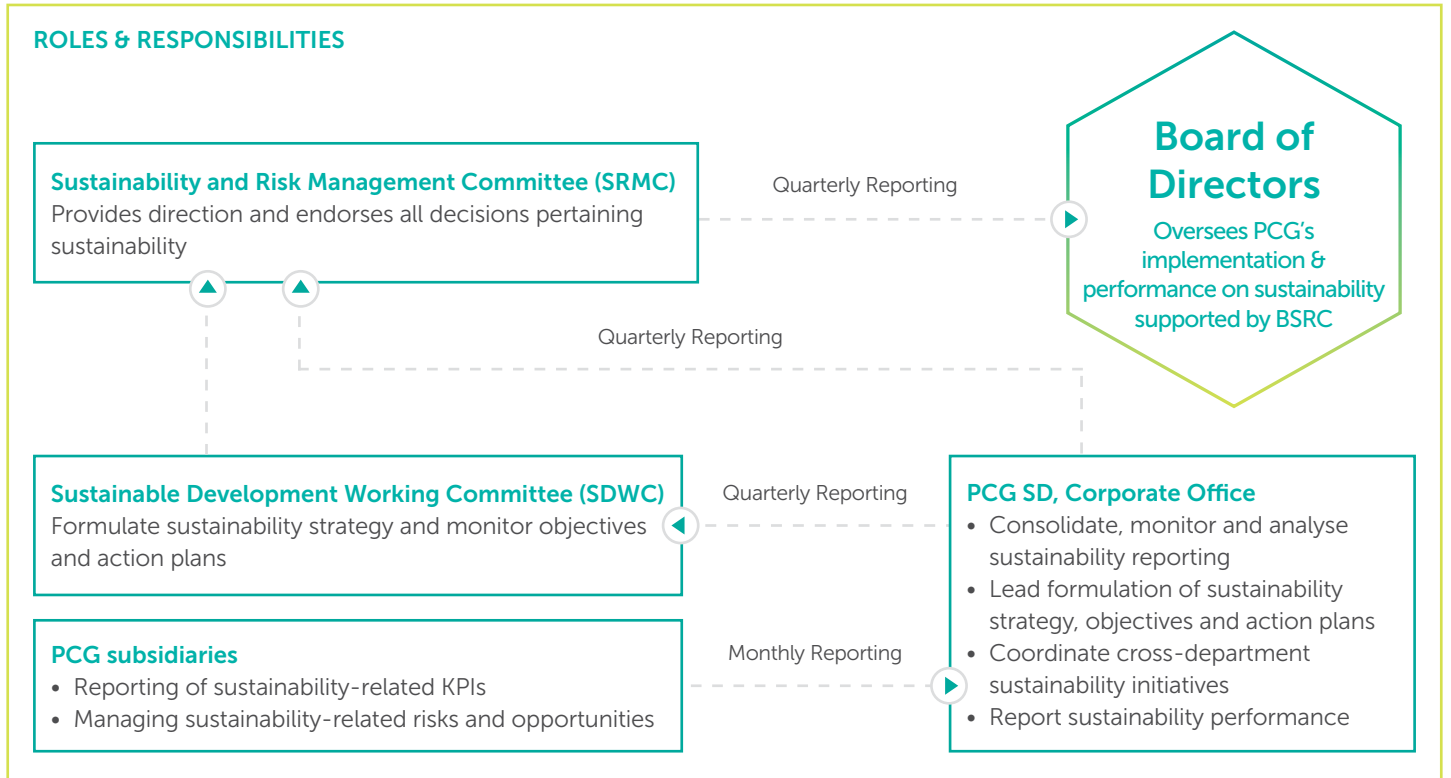
GOVERNANCE STRUCTURE

At PCG, we strive to always uphold the highest level of integrity and accountability while promoting a solid sustainability mindset across the Board and leadership team. This year, we introduced sustainability Key Performance Indicators (KPIs) in top management performance appraisals. Additionally, the Board holds quarterly deliberations on sustainability issues and undergo external training on sustainability-related matters. Similarly, we have included PCG’s sustainability performance as a permanent agenda in quarterly Board meetings.

PCG’s sustainability governance prioritises transparency and accountability when delivering our sustainability strategies. A Sustainable Development Working Committee (SDWC) leads our Sustainability Agenda, which is then reviewed and approved by the Sustainability and Risk Management Committee (SRMC) and reported to the Board. The clear delineation of roles and responsibilities enables us to uphold the highest level of integrity and efficiency in our Sustainability Agenda and its implementation.



GOVERNANCE STRUCTURE



ROLE OF THE SDWC



SUSTAINABILITY & RISK MANAGEMENT

At PCG, we proactively identify, analyse and manage risks that materially impact our value creation abilities, including sustainability related risks and opportunities. Economic, Environmental, Social and Governance (EESG) factors are fundamental to business resilience and stakeholder trust. Therefore, we adopt a holistic view in managing interrelation between our strategy, EESG risks and sustainability.

We have embedded effective risk management processes across the entire value creation in all our lines of business. We identify, assess, treat and monitor all risks that could potentially impact our business, including inherent risks, as early as possible. During the year under review, sustainability risk was added to include climate change as well as circular economy, previously known as the 'War on Plastic'.

We are also conscious of the rapidly rising climate change risks, which include both physical and transition risks. In response, we developed PCG's Net Zero Carbon Emissions 2050 Roadmap, which is aligned with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. This guides our analysis of climate-related risks and opportunities, which is regularly deliberated by the Board and driven by the management team. We also assess physical and transition risks using qualitative and quantitative climate-related scenario analysis. Furthermore, PCG has integrated climate risks identification, prioritisation management and disclosure processes as well as various GHG mitigation initiatives into our Corporate Risk Profile (CRP).

PCG has allocated around 10% of its planned annual capital expenditure to scale up decarbonisation, renewables and low carbon portfolio from 2023 to 2027. We strongly believe that by collaborating closely with the government and businesses to enforce, enact or invest in effective climate change adaptation and mitigation measures, preserve ecosystems, protect populations and transition to a net zero economy, climate change will continue to be an emerging risk.

We strive to adhere to the standards of global sustainability indices to improve our governance and disclosures on sustainability related risks to meet our stakeholder expectations.

Climate Change

Climate change will have wide ranging effects on the environment and socio-economic related sectors. These include water resources, agriculture and food security, human health, terrestrial ecosystems, and biodiversity and coastal zones. Delays in our climate change response lower our competitive edge against changing markets, regulations and technologies.

This risk is likely to continue to exist if governments fail to establish and enforce effective policies to support climate change-related initiatives and businesses fail to execute and leverage the opportunities.








Despite the latest Nationally Determined Contributions (NDCs) to decarbonisation made at the 2021 COP26, the rising temperature trend indicates that it will still fall short of the 1.5°C goal set out in the Paris Agreement.

SUSTAINABILITY RISK







Circular Economy

With global awareness of the circular economy increasingly shaping stakeholder expectations, aggressive environmental pushes by policymakers and environmentalists may affect our business performance, reputation and long-term growth.

SUSTAINABILITY GUIDELINES

MATERIAL MATTERS	LIST OF POLICIES & GUIDELINES	AIM OF POLICIES & GUIDELINES
Climate Change 	PETRONAS Technical Standards on Greenhouse Gas (GHG) Emissions Management	To provide guidance on climate risks, opportunities and mitigation
	PCG Net Zero Carbon Emissions 2050 Roadmap	To provide guidance on the selection of pathways for decarbonisation
Environmental Stewardship 	PCG Health, Safety and Environment (HSE) Policy	To iterate PCG's aspiration and commitments to attain and sustain excellence in environmental matters
	PETRONAS Mandatory Control Framework (MCF)	To strengthen our governance on responsible environmental management
Innovation & Product Stewardship 	Research & Development (R&D) for PETRONAS Chemicals Group	To provide guidance for the selection and execution of Research & Technology projects through a stage-gate process
	Product Sustainable Design Guideline	To guide the incorporation of sustainable product criteria into the design and development of innovative product selection
	PETRONAS Anti-Bribery and Corruption Policy & Guidelines (ABC Manual)	To help employees learn how to deal with improper solicitation, bribery and corruption activities and issues that may arise in the course of business
	PETRONAS Code of Conduct & Business Ethics (CoBE)	To emphasise and advance the principles of discipline, ethical conduct, appropriate standards of behaviour, professionalism, loyalty, integrity and cohesiveness in our business conduct and operations
New Plastics Economy (NPE) 	PCG Sustainability Agenda	To set the path towards recovering plastic waste into a circular economy
	NPE Communication Plan	To increase public awareness and community outreach on the aims and aspirations of NPE
Workplace and Occupational Safety & Health 	PCG Health, Safety and Environment (HSE) Policy	To reinforce our commitment to health and safety excellence
	PETRONAS Mandatory Control Frameworks (MCF)	To strengthen HSE governance and expedite the implementation of process safety aspects and clearly defined scope of HSE assurance
Supply Chain Management 	PETRONAS Contractors Code of Conduct on Human Rights (CoCHR)	To strengthen the implementation of PETRONAS Human Rights Commitment and practices across the business value chain
	PETRONAS Procurement Standard (PPS)	To secure the best value in the procurement of goods and services while upholding good procurement governance
	Compliance Clauses (Ethics and Anti-Bribery, Anti-Money Laundering, Competition Laws, Personal Data Protection, Sanctions, Human Rights)	To mitigate legal, financial and reputational risks to PETRONAS, which extend to our supply chain
Community Engagement 	Yayasan PETRONAS Guidelines for Donation	To define the standard procedures and guidelines for donation management
	Yayasan PETRONAS Guidelines for Programme Development and Execution	To define the standard procedures and guidelines on matters related to the Social Impact programme development and execution
	PETRONAS Strategic Communications Management System	To provide guidance for the PETRONAS Group to plan, implement and execute strategic communications activities

SUSTAINABILITY GUIDELINES

MATERIAL MATTERS	LIST OF POLICIES & GUIDELINES	AIM OF POLICIES & GUIDELINES
Talent Development 	Talent Development for PETRONAS PCG Leadership Development Framework	To provide an enabling environment for employees to self-drive performance and development in order to create and add value to the individual and organisation's growth and sustainability To create a ready pool of talents that are agile and well-equipped with the necessary skills and experience to thrive in the long term through the right exposure from the early stages of their career
Corporate Governance 	PETRONAS Anti-Bribery and Corruption Policy & Guidelines (ABC Manual) PETRONAS Code of Conduct & Business Ethics (CoBE) PETRONAS Whistleblowing Policy PCG Risk Policy PETRONAS Tender and Contracts Administrative Manual (PTCAM)	To provide guidance on how to deal with improper solicitation, bribery and corruption activities and issues that may arise in the course of business To advance the principles of discipline, good conduct, professionalism, loyalty, integrity and cohesiveness, which is critical to the success and well-being of the PETRONAS group To provide an avenue for stakeholders to disclose any improper conduct in accordance with the procedures, ensuring whistleblowers are protected from any retaliation To be a risk resilient organisation in achieving business objectives To secure the best value in procurement of goods and services while upholding good procurement governance
Strategy Purpose & Financial Resilience 	PCG Two-Pronged Strategy PCG Sustainability Agenda	To develop a portfolio of derivatives and specialty chemicals while sustaining PCG's strength in basic petrochemicals To build and grow a sustainability portfolio with the aim for net zero carbon emissions by 2050
Plant Operations 	Production & Operations Management System Physical Asset Management System Quality Management System	To provide the minimum requirements to manage plant operations safely and efficiently To effectively manage maintenance and physical assets, including the Turnaround Management system To ensure the effective management of product quality throughout the whole process
Human Rights 	PETRONAS Contractors Code of Conduct on Human Rights (CoCHR) PETRONAS Human Rights Commitment Compliance Clauses (Ethics and Anti-Bribery, Anti-Money Laundering, Competition Laws, Personal Data Protection, Sanctions, Human Rights)	To strengthen the implementation of PETRONAS' Human Rights Commitment and practices across the business value chain To state the company's respect for human rights through management commitment To mitigate legal, financial and reputational risks to PETRONAS
Cybersecurity & Digitalisation 	PETRONAS ICT Principles PETRONAS Enterprise Cybersecurity Governance Framework PETRONAS Cybersecurity Control Standards PETRONAS Cybersecurity Risk Management Guidelines PETRONAS Records Management Standards & Guidelines	To serve as the overarching statements that set out the purpose, commitment, and governance of ICT and records management To provide a single consolidated view of the frameworks, standards, and guidelines required to govern and manage cybersecurity across PETRONAS, with clear lines of accountability To provide relevant employees, contractors and third parties across the PETRONAS group of companies with guidance on how to apply cybersecurity control requirements To establish the governing elements and processes to assess, evaluate, treat, monitor and review cybersecurity risk To standardise documents classified in accordance to the appropriate document security classification (i.e. secret, confidential, internal and open)

MEMBERSHIP AND ASSOCIATIONS

ASSOCIATIONS	PCG'S CONTRIBUTION
Methanol Institute (MI)	<ul style="list-style-type: none"> • Board Member advocating for cleaner feedstocks, i.e. methanol for marine fuel and fuel cells • Chairperson for Product Stewardship Committee to drive safe handling and responsible use of methanol • Promoted gas-based production through MI Beijing Office, which supports China's move on Carbon Neutrality (a plan which includes gas-based methanol) with a commitment to achieve carbon neutrality by 2060 • Regular discussions on product development updates, i.e. e-methanol and bio-methanol • Participating in the methanol low-carbon task force
International Fertilizer Association (IFA)	<ul style="list-style-type: none"> • Producing sustainable fertiliser to increase PCG's energy efficiency and meeting CO₂e emission targets • Active participation through quarterly Board meetings to drive the industry towards sustainability efforts in agriculture, as well as in the production of ammonia and fertilisers • Leveraging IFA Green Fertilizers platform as an advocator for Stabilised Nitrogen Fertiliser (SNF) and Enhanced Efficiency Fertiliser (EEF) products
Malaysian Plastics Manufacturers Association (MPMA)	<ul style="list-style-type: none"> • MPMA in collaboration with PCG, organised 2 webinars to enhance technical knowledge and skills among the plastic industry players • PCG participated in the ASEAN Federation of Plastics Industries (AFPI) / Asia Plastics Forum (APF) / Global Plastics Alliance (GPA) Joint Conference in Bangkok, Thailand where MPMA is the Secretariat for APF • PCG is a part of MPMA's delegation in meetings with the Malaysia Ministry of Natural Resources, Environment and Climate Change and related agencies • MPMA promoted Separation at Source (SAS) and 3R via the MPMA Green Truck at PCG Be Green events throughout Malaysia • PCG is the first signatory to Operation Clean Sweep (OCS) in Malaysia, launched by MPMA in Kerteh, Terengganu
Malaysian Petrochemicals Association (MPA)	<ul style="list-style-type: none"> • Held the leading position as the President of the MPA Council from 2020-2022 • MPA, in collaboration with PCG, played a crucial role in organising the inaugural Petrochemicals Sustainability Conference 2022 (PSC 2022) as part of the steering committee and the platinum sponsor
Plastics Sustainability and Circularity Think Tank	<ul style="list-style-type: none"> • Key Members in the Plastics Sustainability and Circularity Think Tank as part of the implementation of Malaysia Plastics Sustainability Roadmap, 2021 - 2030 by Ministry of Ministry of Natural Resources, Environment and Climate Change (NRECC)
Fertilizer Industry Association of Malaysia (FIAM)	<ul style="list-style-type: none"> • Initiated the standardisation of fertilisers vocabulary, jargon and terms to match international standards

SUSTAINABILITY SCORECARD

ECONOMIC



<p>Production Volume</p> <p>10.4** million tpa</p> <p>2021: 10.4 million tpa</p>	<p>Sales Volume</p> <p>8.3** million tpa</p> <p>2021: 8.2 million tpa</p>
<p>70%</p> <p>total procurement spending for Malaysian business sourced from local suppliers</p> <p>2021: 66%*</p> <p><small>* We have revised our 2021 figure due to recounting adjustment. The changes have been restated in our disclosed values in this year's report.</small></p>	<p>Plant Utilisation (PU)</p> <p>89%</p> <p>2021: 93%</p>
<p>Number of new products</p> <p>15**</p> <p>2021: 16</p>	<p>Order Fulfilment Reliability</p> <p>95%</p> <p>2021: 87%</p>
<p>Number of Co-created Solutions</p> <p>12</p> <p>2021: 16</p>	

ENVIRONMENTAL

<p>AIR</p> <p>GHG Emissions</p> <p>7.05 million tonne CO₂e</p> <p>2021: 7.00 million tonne CO₂e</p>	<p>WASTE</p> <p>Hazardous Waste Generation</p> <p>29.4 kilotonne</p> <p>2021: 26.2 kilotonne</p>
<p>GHG Emissions Intensity</p> <p>0.70 tonne CO₂e/ tonne</p> <p>2021: 0.67 tonne CO₂e/tonne</p>	<p>Hazardous Waste 3R</p> <p>76%</p> <p>2021: 75%</p>
<p>Reduction of GHG Emissions</p> <p>more than 108,000 tonne CO₂e</p> <p><small>Cumulative reduction from numerous projects since 2019</small></p>	<p>ENERGY</p> <p>Energy Intensity</p> <p>17.08 GJ/tonne</p> <p>2021: 15.76 GJ/tonne</p>
<p>Air Emissions (NOx)</p> <p>18.51 kilotonne</p> <p>2021: 25.07 kilotonne</p>	<p>Energy Consumed</p> <p>104.90 million GJ</p> <p>2021: 102.27 million GJ</p>
<p>Air Emissions (SOx)</p> <p>0.19 kilotonne</p> <p>2021: 0.27 kilotonne</p>	<p>Energy Intensity Reduction</p> <p>3% from baseline year 2014</p>
<p>Air Emissions Intensity</p> <p>1.86 tonne/kilotonne</p> <p>2021: 2.42 tonne/kilotonne</p>	

** including BRB Group & Perstorp Group

SUSTAINABILITY SCORECARD

SOCIAL

WATER

Freshwater Withdrawal

39.06
million m³
2021: 38.52 million m³



Freshwater Withdrawal Intensity

3.89
m³/tonne
2021: 3.69 m³/tonne



Wastewater Discharge (COD Loading)

204.2
tonne
2021: 171.4 tonne



Wastewater Discharge (COD Loading) Intensity

0.02
tonne/kilotonne
2021: 0.02 tonne/kilotonne



CONSERVATION

Mangrove trees planted

3,550
2021: 1,200





Social Impact Initiatives reached over

300,000
people
2021: ~295,000 people
Inclusive of NPE reach



World-Class Safety Performance

0.17
Lost Time Injury Frequency (LTIF)
compared to oil & gas industry benchmark of 0.22
2021: 0.07



Employee Training & Development

RM24.4
million invested
2021: RM6.9 million invested


Number of Products Stewardship and Technical Seminars

13
2021: 12
Completed all High and Medium priority Global Product Strategy Safety Seminars



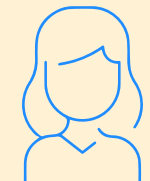
Women Representation in Senior Leadership

29%
2021: 18%




Female Workforce

22%
2021: 17%



Training Days

10.2
(man-days) On average per employee
2021: 3.0
(man-days) on average per employee




INNOVATION AND PRODUCT STEWARDSHIP



WHY IT MATTERS

Innovative products and application solutions are vital for us to continue to meet evolving customer and industry needs. Adopting emerging technologies and collaborating with strategic partners to innovate and co-create solutions will not only give us a competitive edge but also enables us to contribute to the development of a more sustainable industry.

Working closely with our customers allows us to deliver innovative products that meet their needs and add value to their business. It enables us to uphold Customer Relationship Management (CRM), which is essential to our long-term growth and Commercial Excellence and aligns with our vision to be 'The Preferred Chemical Company Providing Innovative Customer Solutions'.

As an integrated petrochemicals company, we leverage on innovation to deliver world class sustainable products by adopting a lifecycle approach into product design and development. Product Stewardship leads us to ensuring that our products are safe, compliant and risk-managed, when used as intended.

Our rigorous Innovation and Product Stewardship programmes ensure all innovations meet the highest standards of quality and safety throughout their lifecycle, from inception to development through production and to customer application. This increases the commercial opportunities of our products, which allows our customers to penetrate new markets, expand their business and leverage maximised value from our products.

OUR APPROACH

Our innovative solution developments are focused on solving customers' pain points and meeting specific business needs. Our approach to innovation is driven by strong partnership with customers and supported with competencies in product and application technology to ensure that the solutions we develop are resilient to market risks and trends. Through innovative solutions and high-quality products, we aim to proactively meet customers' changing needs and expectations to not only strengthen our relationships with the existing network of customers, but also build strong relationships with new customers and create opportunities to enter new market segments.

For many years, we have been committed to Responsible Care®, which is a chemical industry initiative to drive safety and sustainability around the world. As a Responsible Care® Global Charter signatory, we not only embed the principles of the Responsible Care® into our business, but also work closely with the Chemical Industries Council of Malaysia (CICM) to drive the implementation of higher standards of chemical safety and regulatory compliance domestically.

In striving to going beyond compliance, we systematically conduct product reviews on existing and new products being developed so that our customers and stakeholders benefit from our products with minimum health and environmental impacts.

We are committed to complying with all the relevant national and regional statutory chemical regulations, which are continually expanding globally. We monitor legislative developments and work closely with regulators to drive compliance and business continuity for our business entities and customers in all the markets where we operate in.

In striving to going beyond compliance, we systematically conduct product reviews on existing and new products being developed so that our customers and stakeholders benefit from our products with minimum health and environmental impacts. In doing so, we assess raw materials for potentially hazardous substances, prioritise sustainable design criteria in new product designs and identify other opportunities to enhance product safety and sustainability across the product value chain.

Our products are handled by a wide network of people across an extensive value chain. As such, we have put in place PCG's Product Stewardship programmes to equip the relevant stakeholders with knowledge of our products. We also conduct routine assessment and characterise the risk of our chemical products to ensure adequate and accurate information is communicated to our customers and stakeholders through an efficient SAP system that manages our product Safety Data Sheets (SDS). We utilise the Globally Harmonized System (GHS) to classify and label our products wherever legally permissible to better inform our users about our products and the risks associated with them. We take into account any national or regional modifications within the GHS framework, such as the Malaysia CLASS 2013 Regulations. We also utilise a global emergency hotline network that allows our customers and stakeholders to seek critical information at anytime with ease.





INNOVATION AND PRODUCT STEWARDSHIP

OUR VALUE CREATION

Co-creation with Customers

- Delivered innovative, value-added solutions to customers while maximising business growth
- Ensured an innovation ecosystem of resources and capabilities to spearhead business innovation efforts efficiently as well as to foster innovation culture in the organisation. The ecosystem comprises PCG's application technologists, who collaborate with customers. Equipped with world-class research and product development laboratories, the ecosystem is also supported by a network of leadership and technical team to strategically engage and learn about innovative solutions and emerging technologies
- Intensified efforts to become a total-solutions partner to customers by offering webinars and other online engagements to reach a wider customer base

Sustainable Product Development

- Focused on developing natural and specialty chemicals that are environmentally friendly and support a circular economy
- Completed basic engineering design for bio-based specialty surfactant pilot plant in Bangi
- Explored the chemical market and identified commercial opportunities to develop products with positive environmental or social impacts
- Adopted a structured lifecycle approach to embed sustainability into innovative solutions development

Product Stewardship Communication

- Provided accurate product safety information to ensure customers and stakeholders are well-informed about product hazards and risk mitigation
- Published our SDS at <https://sds.petronas.com.my> for ease of access by our customers and the general public
- Put in place a global hotline network that is supported by a leading international service provider in emergency communication
- Voluntarily developed and published Global Product Strategy Safety (GPSS) summaries in accordance to the International Council of Chemical Associations (ICCA) recommendations for all high-risk chemical products

Product Stewardship and Technical Engagements

- Continuously engage and educate customers, suppliers and distributors on product safe handling and use through physical and virtual Product Stewardship engagements
- Conducted regular technical exchanges with customers to impart knowledge on our products and applications to enable them to maximise benefits from our products

Life Cycle Analysis (LCA) Products

- Conducted detailed LCA studies to accurately establish the product carbon and water footprint, as well as impact across various other health and environment impact categories
- Conducted detailed review of product LCA with process and product application experts to identify opportunities to reduce these impacts, especially its carbon footprint

Regulatory Compliance

- Regularly checked on legislative developments to ensure all our products comply with the local regulatory requirements of the markets we serve. This includes requirements across global chemical handling for safety and environment, labelling requirements, transportation of dangerous chemicals, handling of restricted chemicals, and Halal Assurance Systems, among others

Raw Material Information System (RAWMIR)

- Examined the value chain of our products by directly engaging the suppliers of raw material, including catalysts and chemical additives, that go into the production of our product in order to accurately identify the presence of any potential substance of concern in procured chemicals
- Established RAWMIR for PCG, which enables systematic identification and substitution pathways for raw material that contain hazardous components or impurities to enhance the safety and sustainability of PCG product portfolio

INNOVATION AND PRODUCT STEWARDSHIP

Customer-centric Solutions

- Enhanced product offering to customers in China through the expansion of China Domestic Delivery (CDD) in more regions, where they can purchase PCG products in Renminbi currency and enjoy Just in Time (JIT) delivery
- Expanded methanol domestic distribution in China with a new satellite tank in Fujian, Eastern China via the arrival of maiden cargo in October 2022
- Expanded China polymer domestic distribution to Shanghai and Ningbo, Eastern China

Customer Complaint Management

- Remained responsive to customer feedback, ensuring positive customer experiences
- Continued to execute effective customer engagement by improving responsiveness to customer requests, as well as increase our product and application knowledge based on key learnings of the previous Customer Satisfaction Survey (CSS) in Business & Sales support

Addressed Customer Complaints









- **Incorrect Labelling on Drums**
Proactive measures were taken to address incorrect product labelling on drums despite findings that proper procedures were adhered to and the labelling was in fact done correctly for all batches delivered to customers. The team works closely with customers to prevent incorrect information and ensure there are no other missing barcodes and duplicate top labels with similar details, for all future shipments
- **Product Crystallisation**
Crystallisation of products was found to have been caused by unclear communication to customers on the freezing point and the suitable storage condition for the materials. As a corrective measure, clear and proper communications on correct storage condition for the relevant products will be relayed to customers in the future

Partnerships & Collaborations

- Collaborated with regulatory agencies and local associations to provide requirements or feedback for smooth business operations and continuity. These associations and agencies include:
 - Malaysian Petrochemicals Association (MPA),
 - Malaysian Plastics Manufacturers Association (MPMA),
 - Federation of Malaysian Manufacturers (FMM),
 - Ministry of Domestic Trade and Consumer Affairs (KPDNHEP), and;
 - Ministry of International Trade and Industry (MITI)
- Shared PCG's practices and safeguards in managing chemical safety and security in support of the Organisation for Prohibition of Chemical Weapons (OPCW) to Malaysia's National Authority of the Chemical Weapons Convention (NACWC) and Australian Safeguards and Non-Proliferation Office (ASNO) delegation



INNOVATION AND PRODUCT STEWARDSHIP

OUR ACHIEVEMENTS	
<p>27 </p> <p>new/enhanced products and co-created application solutions</p>	<p>283 </p> <p>technical solutions covering homecare, industrial and institutional cleaning, packaging</p>
<p>Held 13 product stewardship and technical seminars attended by 641 people from 5 countries </p>	
<p>Completed basic engineering design for a bio-based specialty surfactant pilot plant to further enhance Household, Industrial & Institutional (HI&I) and personal care product offerings </p>	
<p>Completed 11 comprehensive LCA </p> <p>studies which covered 18 impact categories in accordance with ISO 14040/44 and ISO 14067</p>	<p>Completed product LCAs for 84% </p> <p>of PCG's portfolio. Aim to cover 100% of our products by 2023</p>
<p>Acquired a 5.4 sigma </p> <p>against the industry standard of 5.0*</p>	<p>ZERO </p> <p>incidents of non-compliance concerning the health and safety impacts of products</p>

New/Enhanced Products Developed in 2022

COMPACTED NPK

A form of NPK fertiliser designed with compacted basic nutrients such as Nitrogen (N), Phosphorus (P) and Potassium (K) that can be applied directly to crops.

Tolling of compacted NPK fertilizer with Malaysian NPK Fertilizer Sdn Bhd for supply to oil palm and other crops in Northern Malaysia

LLDPE MI 7 FOR CAPS & ROTO MOULDING (LL3870UA)

To provide solutions for local roto converters that requires easy-to-process material for complex design and productivity involvement for caps & closures (C&C) producers.

New Application Solutions Co-created with Customers

1. LL3870UA for highly intricate design-plastic playground's anti-skid platform
2. Development of emulsifier for silicone oil in floor cleaner application
3. Higher productivity achieved using LL3870UA for septic tank production

* This is based on the Six Sigma methodology, which monitors customer experience and product quality on a monthly basis. The higher the sigma rating, the closer to process product or service perfection, with the Six Sigma being the highest score.

INNOVATION AND PRODUCT STEWARDSHIP



PRODUCT SAFETY COMMUNICATION	2020	2021	2022	Mid-Term Target (2025)
Number of new/enhanced products	11	16	15	10
Number of co-created application solutions	21	16	12	15
Number of technical solutions	545	301	283	200
Number of product stewardship & technical seminars	14	12	13	12

CUSTOMER FEEDBACK	2020	2021	2022
Customer satisfaction survey* (score)	3.3	3.5	3.5
Customer feedback (No. of complaints)	21	23	9

PRODUCT DELIVERY TO CUSTOMERS	2020	2021	2022	Mid-Term Target (2025)
Order Fulfilment Reliability (OFR) (%)	97	87	95	95
Total vehicle accident rate	0.13	0.20	0.08	0.20

* Conducted every two years

SUPPLY CHAIN MANAGEMENT



WHY IT MATTERS

As an organisation that relies on thousands of vendors and suppliers across its extensive value chain, a robust supply chain is crucial for us to ensure smooth daily operations. Key elements such as ensuring reliable feedstock and services from vendors to meet customer needs are vital in enabling us to expand our capabilities and provide world-class products. Any disruptions in our supply chain will interrupt our ability to meet expectations and ultimately expose us to various risks including operational, financial and reputational.

An organisation is only as sustainable as its supply chain. As a chemical company, the sustainability of our business and products is contingent on collaboration between all partners within the supply chain. Sustainable practices within the supply chain not only minimise the negative environmental impacts of the whole industry but also generate positive impacts on the economy and the community in which we operate.

OUR APPROACH

Our procurement processes from selection of suppliers to awarding of tenders are mainly guided by the PETRONAS Procurement Standard which make reference to various documents including PETRONAS Anti-Bribery and Corruption Policy & Guidelines (ABC Manual). During the licensing, bidding, contracting, and execution phases, all contractors are required to comply with safety, technical, environmental, and Code of Business Ethics (CoBE) regulations. Suppliers are required to complete a "Know Your Customer" questionnaire during assessment to facilitate due diligence process aiming to minimise third party risk.

We have zero tolerance for non-compliance or malpractices within our supply chain.

Failure to comply with social and environmental regulations will result in serious action, including contract termination. A formal grievance system has been established for stakeholders to safely report any misconduct or malpractice. All grievances are investigated and resolved based on specific site arrangements.

We work closely with our supply chain partners in driving sustainability across economic, environmental, social and governance (EESG) dimensions throughout the supply chain. Where possible, we drive the adoption of sustainability frameworks and best practices within the supply chain and industry through multi-stakeholder efforts and collaboration with industry and trade associations.



OUR VALUE CREATION

Corporate Liability

- Vendors are expected to understand the Corporate Liability Provision and required to develop appropriate measures against corporate liabilities
- Vendors are encouraged to sign the Integrity Pledge to prove their commitment to combatting corruption
- Third-party due diligence process was enhanced via a "Third Party Risk Assessment" to ensure that all contractors, vendors and joint venture partners meet PETRONAS' standards of integrity

Health and Safety

- Provided PCG's Road Transport Operational Guideline (RTOG) to logistical providers
- Continued to strengthen contractor capabilities in HSE Management through the Contractors HSE Mentorship Programme
- Continued to enhance suppliers' HSE knowledge through ongoing and effective training programmes
- Conducted Felt Leadership sessions involving management representatives from PCG and our transporters to enforce PCG's mindset on safety policies and procedures such as RTOG



SUPPLY CHAIN MANAGEMENT

OUR VALUE CREATION

Human Rights

- Enforced the PETRONAS Contractors Code of Conduct on Human Rights (CoCHR) and HSE requirements during the selection and hiring of vendors which also align with Eight International Labour Organization (ILO) core conventions as set out in the Declaration on Fundamental Principles and Rights at Work
- Ensured that the requirements and expectations outlined in the PETRONAS Human Rights Commitment and CoCHR were fully understood and adhered to through CoCHR awareness sessions among contractors
- Held CoCHR assessments to identify gaps and enhance compliance towards achieving the goal of zero violations

Sustainable Supply Chain

- Enhanced our raw material sourcing framework, for instance by establishing Raw Material Information Request (RAWMIR) to obtain accurate supplier information on the presence of substance of concern to human health and the environment such as persistent organic pollutants (POP)
- Carefully consider the carbon footprint of process technology employed for the design and production of new products
- Secured Roundtable on Sustainable Palm Oil (RSPO) certified feedstock for selected Fatty Alcohol Ethoxylate (FAE) product
- Embedded environmental and social considerations into supplier selection in adherence to PETRONAS Code of Business Ethics (CoBE)
- Further incorporated environmental requirements into contracts and other arrangements with contractors, suppliers and other supply chain partners, such as hazardous waste management, and spill management
- Conducted risk assessment during tendering on various categories including health and safety, environment, governance, legal/regulatory, integrity, socio-economic, suppliers, and human rights
- Conducted a Health, Safety & Environment (HSE) assessment as part of contract requirement
- Regularly conducted supplier audit on environmental management such as spill and hazardous waste management
- Participated in industry association led workshops with authorities to deliberate environmental concerns in the country, such as enhancing hazardous waste recycling capability in the country
- Collaborated with MPMA to launch Operation Clean Sweep (OCS), which is a global plastic industry signature program aimed at reducing accidental loss of plastic material, such as pellets and flakes to the environment, in Malaysia and drive adoption by customers and supply chain partners
- Our subsidiary BRB Group subscribes to EcoVadis, which is one of the world's most comprehensive sustainability rating tools used to drive transparency on social, ethical and environmental impacts across the supply chain

Supporting Local Suppliers

- Efforts are in place to enhance local participation in performing procurement services to the organisation
- Empowered local contractors through structured programmes to help them thrive in a competitive digital world
- Continued grooming local vendors through the PETRONAS Vendor Development Programme (VDP), which aims to shape them to be commercially attractive, technically competent, capable of expanding globally

Digitalisation

- Enhanced end-to-end procurement function with digital tools and technologies

SUPPLY CHAIN MANAGEMENT

OUR ACHIEVEMENTS



Number of Felt Leadership sessions with land transport contractors

12

BRB Group awarded

SILVER MEDAL

for 2022 Ecovadis Sustainability Rating

1ST SIGNATORY

to Operation Clean Sweep (OCS) in Malaysia

SUPPLIERS AND VENDORS*	2020	2021	2022
Total number of suppliers	1,445	1,603*	1,738
Local suppliers (%)	72	77	80
Total number of local suppliers under PETRONAS Vendor Development Programme (VDP)	11	13	12
Local procurement spending (%)	60	66*	70

* We have revised our 2021 figure due to recounting adjustment. The changes have been restated in our disclosed values in this year's report.

CYBERSECURITY AND DIGITALISATION



WHY IT MATTERS

With increasingly sophisticated cybercrime, there is a greater need to stay alert and be aware of both the threats and methods to keep our complex systems secure. Any breaches of the Cybersecurity systems may disrupt PCG's daily operations, which have been integrated with digitalisation and expose the Group to risks such as legal, financial and reputational. Lack of effort in addressing this matter will eventually affect the sustainable growth of our business organisation.

As such, we take Cybersecurity seriously as we digitalise our systems and processes across our operations and business activities. We are always strengthening our Cybersecurity systems to protect our data from cyberattacks, information leakage and information security breaches.

PCG's digital transformation journey is driven by the need for more agile and efficient businesses. Our digital transformation has strengthened our ability to deliver world-class service to our clients and provides unique value add-ons that can differentiate us from competitors. Digitalisation also creates opportunities for us to promote new business models as well as generate revenue streams. Digital services are at the heart of PCG's success in its aim to achieve Operational Excellence and Commercial Excellence.

However, digitalisation exposes us to risks of cyberattacks and information confidentiality breaches. During the pandemic, the rapid shift to remote working and the use of digital platforms during lockdowns inherently increased the risks of cybercrime globally. Statistics have shown that there were 236.1 million ransomware breaches reported globally in the first half 2022, which accounted for 20% of cyber breaches, while in 2021, there were 623.2 million ransomware attacks worldwide¹. This further underlines the need to strengthen our Cybersecurity systems to mitigate and reduce cyber threats and cyber breaches.

¹ Source: <https://aag-it.com/the-latest-ransomware-statistics/>

OUR APPROACH

PCG's Cybersecurity are anchored on the PETRONAS Enterprise Cybersecurity Governance Framework (ECSGF), which safeguards our data and systems from malicious cyber intrusion. This single governance framework is based on industries best practices and standards and aims to protect our systems and data where we conduct vulnerability, legal and regulatory assessments on behalf of our business.

Driven by our PCG Digital Steering Committee, our digitalisation journey is always progressing and has established a platform for digital creation.



A key initiative is the acceleration of the implementation of Downstream Operational Excellence Result 2 (OE R2) at all PCG manufacturing plants through the adoption of a comprehensive Downstream Digital Framework. We are also able to optimise faster data-driven decision-making processes with the digital Enterprise Optimiser and PETRONAS Integrated Vision for Operational Excellence Transformation (PIVOT) that drive the best value for molecules.

Digitalising our systems and processes has enabled us to utilise a number of digital tools and platforms to improve efficiency, increase uptime and minimise monitoring time. Operationally, we have been able to digitalise equipment critical data, by operationalising Asset Performance Management (APM) for better monitoring of plant operations and efficiency. We are able to store crucial plant data for enhanced decision making, while the usage of digital tools and advanced technology enables us to safely monitor our equipment and operations at higher elevations during turnaround.

To inculcate best Cybersecurity practices in our operations, we constantly create awareness and educate our employees to keep vigilant and avoid potential risks at all times. Some of the educational programmes include modules on simple social engineering scams and complex cybersecurity assaults designed to steal intellectual property or personal data. Employees also receive monthly updates on phishing results and completion of Cybersecurity training while management is provided with a monthly update of Cybersecurity performance. On top of that, phishing tests are performed on a regular basis to ensure that personnel remain cautious at all times and a yearly review of phishing tests is conducted to maintain compliance behaviour of human firewall.

CYBERSECURITY AND DIGITALISATION

OUR VALUE CREATION

Asset Performance Management (APM)

- Ensures asset reliability and integrity is well-managed to lower cyber risk and optimise cost

Plant Operations Integrated Tools (POINT)

- Designed the Operate Facility Work Process (OFWP) to facilitate administration of operator duties, shift log management, plant staffing and fatigue management

Digital Devices

- Provide secure, smart gadgets and 4G LTE connection to allow real-time information and updates in the process area

PIVOT Advanced Analytics (AA)

- Monitors and detects irregular incident in plant facilities, allowing appropriate measures to be taken to avoid production downtime

Primavera P6-SAP

- Rigorously assessed the impacts of our products on human health and the environment which can further help reduce and minimise negative repercussions

Cybersecurity Initiatives

- Employed Cybersecurity Strategy Deployment Programme (CSSDP) and Enterprise Cybersecurity Governance Framework to increase cyber resilience and ensure the safety of our digital assets and data covering IT and OT domains
- Increased employee awareness on Cybersecurity through educational programmes as "Human Firewall" and conducted regular phishing tests to measure the level of maturity and effectiveness of employee awareness as phishing is the most common approach for cyber attacks globally
- Continued implementing Cybersecurity Risk Management (CRA) to ensure our organisation remains resilient against cyber attacks
- Applied Cybersecurity Business Impact Assessment (CSBIA) Legal & Regulatory Assessment (LRA) on PCG system assets
- Ensured all staff undertook and passed the annual Cybersecurity assessment

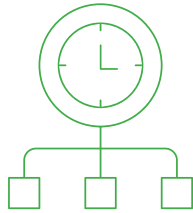


CYBERSECURITY AND DIGITALISATION

OUR ACHIEVEMENTS

ZERO

system downtime
in 2022



ZERO

cyber incidents
that led to breaches (Very High and High severity) recorded in 2022



97%

of employees completed 202 modules and

99%

passed the Cybersecurity assessment



> RM14

million

value realised from APM
in 2022



> RM11

million

value realised from PIVOT AA
in 2022

CYBERSECURITY AND DIGITALISATION PROGRESS

	2020	2021	2022
Employees completed Cybersecurity modules (%)	99	99	97
Phishing Test fail results (%)	8.2	4.3	1.9
Employees passed Cybersecurity Assessment (%)	N/A	N/A	99
Operational Excellence Result 2 (OE R2) Digital Transformation Progress (%)*	60	75	90

* 2021 figures is different from last year's reported figures due to new system implementation.

STRATEGY PURPOSE & FINANCIAL RESILIENCE



WHY IT MATTERS

Financial resilience refers to an organisation's ability to withstand challenges that will impact its liquidity, assets, capital structure and business revenue. Being financially resilient will enable us to resolve unexpected costs and expenses. At PCG, our financial resilience is anchored on our Two-Pronged Strategy that aims to provide future financial sustainability and sustainable growth. Focusing on maximising cash generation and revenue growth, the strategy also encompasses PCG's Sustainability Agenda, which was enhanced in 2022 to include all the sustainability issues that are most material to PCG and its stakeholders.

OUR APPROACH

We are aligned with PETRONAS' net zero carbon emissions target by 2050 through the establishment of our own Net Zero Carbon Emissions (NZCE) 2050 Roadmap. The long-term strategy is to reduce climate impact, improve the resilience of the business and capitalise on opportunities from the circular economy. Our first prong strategy focuses on maximising revenue within existing business and strives to minimise climate impact through PCG's NZCE 2050 roadmap. The second prong strategy allows us to selectively diversify into derivatives, specialty chemicals and solutions while embedding sustainability elements into our growth initiatives. Our enhanced Sustainability Agenda focuses on sustainability as the core of our business management operations. Covering the four sustainability key pillars - Economic, Environmental, Social and Governance (EESG), our Sustainability Agenda has been crucial in enabling us to drive sustainability across our organisation.

We remain committed to embedding sustainability into our day-to-day business decisions and growth initiatives. This includes engaging key stakeholders in addressing risk and governance on sustainability.

OUR VALUE CREATION

Sustainability Strategy for Financial Resilience

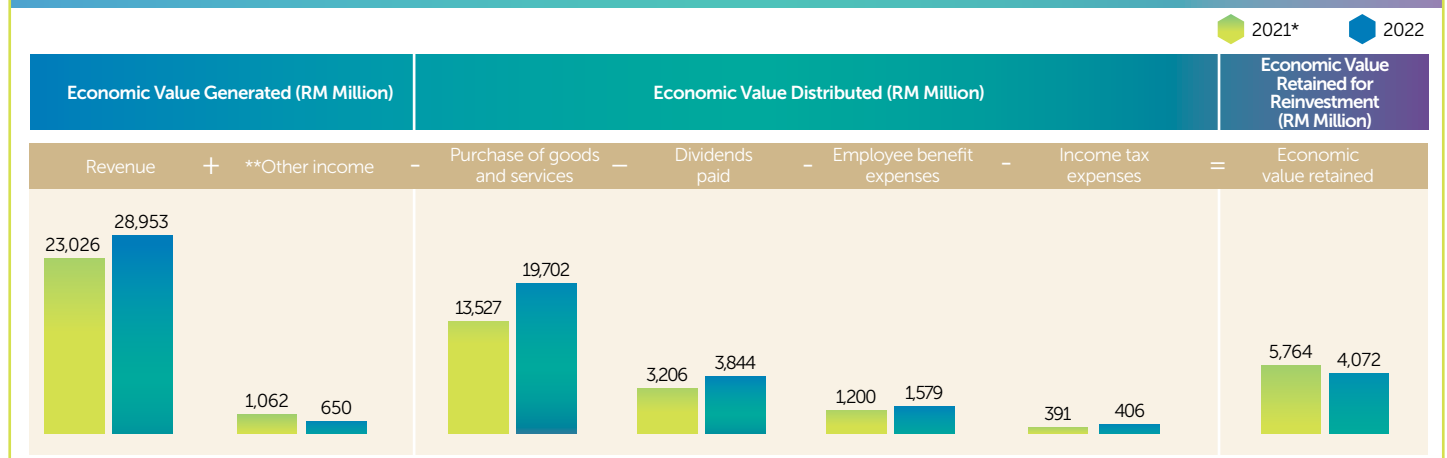
- Optimised current assets for greater efficiency resulting in lower GHG emissions and cost reductions from manufacturing assets
- Diligent implementation of Energy and Loss Management System (ELMS), which reduces energy consumption in various areas of operations
- Pursued sustainability-related growth projects as part of sustainable development initiatives to achieve net zero carbon emissions by 2050
- Diversified product offerings into bio-based products such as Bio-Monoethylene Glycol (Bio-MEG)
- Progressed flagship projects to spearhead the New Plastics Economy (NPE) initiatives by utilising plastic waste to produce circular products
- Acquired Perstorp Group, a niche specialty chemicals company with robust sustainability initiatives, that aspires to become Finite Material Neutral, which will significantly reduce PCG's environmental impact. Finite Material Neutral which is in line with PCG's NZCE 2050 Roadmap involves using alternative resources that are renewable or reusable to provide sustainable innovative solutions
- Leverage and capitalise on Perstorp Group's capabilities and technologies in reducing the environmental impact in producing chemicals, e.g. turning methanol from bio gas and waste CO₂ into a sustainable product¹

We also:

- Conducted continuous and thorough scanning of opportunities and identified pool of acquisition and target companies with PCG's growth strategy and investment consideration within PCG's preferred segments
- Collaborated with PETRONAS' capital ventures companies to explore technology venture and establish corporate venture ecosystem with a focus on cross-cutting areas of disruption for incubation/commercial investment, as well as to establish framework for technology deployment and path forward strategy for Intellectual Property (IP) management
- Assessed opportunities of disruptive technologies from venture capital start-ups and conducted strategic fit assessment on potential strategic partnership to develop these technologies into commercial scale

¹ For more information on Perstorp Group's value creation journey, please refer to the Sustainability at Perstorp Group section from pages 60 to 61 in this report.

OUR ACHIEVEMENTS



* Certain financial information and its corresponding financial ratios have been restated in line with amendments to MFRS 116 Property, Plant and Equipment

** Comprises net other income, financing costs and contribution from joint ventures & associates

CLIMATE CHANGE



WHY IT MATTERS

The impacts of climate change have continued to worsen over the years, as indicated by the Intergovernmental Panel on Climate Change (IPCC). Around the world, extreme weather events have caused disruptions to daily lives, such as the floods in Pakistan, which affected 33 million people while the floods in Bangladesh and India affected 7.2 million and 1.3 million people respectively¹. In Malaysia, the Northeast Monsoon caused a series of floods and landslides across several states. As of 21 December 2022, there were 108 flooded areas and 16 landslides² throughout the country.

Climate change poses physical and transition risks that can disrupt our supply chain, business operations and our ability to create long-term value to our stakeholders. Nevertheless, it also presents opportunities for us to create solutions to accelerate the transition to a low-carbon economy and pursue the implementation of decarbonisation technology within our assets as guided by PETRONAS Net Zero Carbon Emissions (NZCE) Roadmap by 2050.

¹ Source: <https://reliefweb.int/report/world/2022-year-when-disasters-compounded-and-cascaded>

² Source: <https://reliefweb.int/disaster/fl-2022-000379-mys>

OUR APPROACH

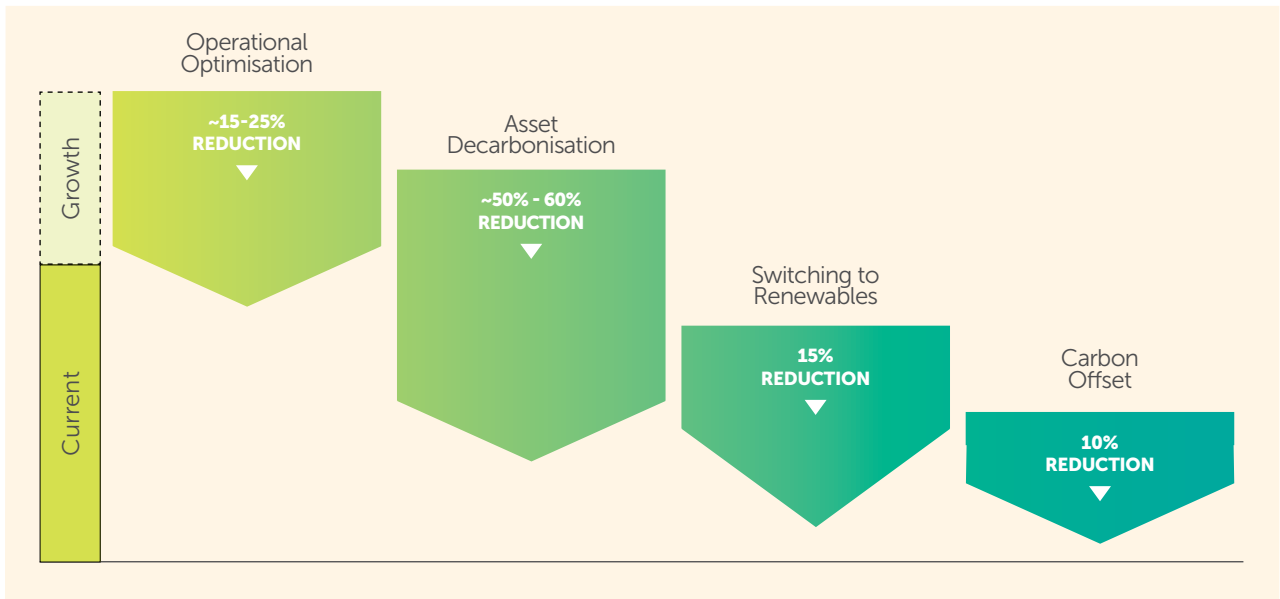
To mitigate climate risks and reduce its impacts on our business operations and value creation, we are stepping up climate action to adapt to climate change. This includes adopting a holistic approach that covers various aspects, from assessing and mitigating our operations' impact on climate change to factoring in carbon pricing into our growth projects. Our approach is guided by the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations, as well as other frameworks related to climate science and national policies.

CLIMATE STRATEGY

In 2022, we published our first TCFD standalone report, which saw us applying the four key TCFD recommendations - Governance, Risk Management, Strategy and Metrics & Target - in managing our climate-related risks and opportunities. The report enables us to identify climate-related risks and opportunities that will affect our business operations physically and financially in the long term. It also allows us to integrate climate risk into the existing risk management framework.

PCG REDUCTION PATHWAY TOWARDS NET ZERO CARBON EMISSIONS 2050

- In terms of strategy, we have developed NZCE 2050 Roadmap in 2021 with clear goals to reduce our emissions by 20% by 2030, more than half in 2040 and net zero by 2050
- Below infographic is our pathway in realising NZCE 2050 Roadmap



- Energy efficiency
- Flare and venting reduction
- Carbon Capture, Utilisation & Storage (CCUS)
- Electrification
- Adopting low carbon process technology into our existing asset
- Solar panel installation and the use of other forms of renewable energy
- Assessing potential carbon removal via nature-based solution (e.g., afforestation)

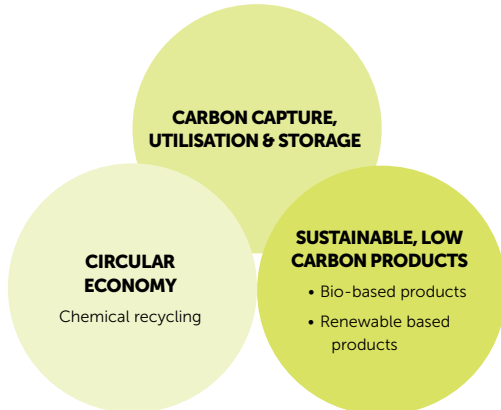
For more information on PCG's climate risk management, please refer to PCG's TCFD Report at https://www.petronas.com/pcg/sites/default/files/2023-02/PCG%20TCFD%20Report%202022_Website.pdf



CLIMATE CHANGE

CLIMATE STRATEGY

We are currently evaluating various low carbon transition opportunities which includes:



SCOPE 3 EMISSIONS

In 2021, we conducted an assessment for material Scope 3 emissions and identified two most material sources of emissions for us to establish the baseline emissions. In 2022, we initiated a detail assessment of Scope 3 emissions sources to develop a baseline all for 15 category³ of emissions. This will enable us to achieve higher accuracy of Scope 3 emissions and identify opportunity to reduce our carbon emissions across our supply chain.

³ For more information about the 15 categories of Scope 3 GHG emissions, please refer to <https://www.epa.gov/climateleadership/scope-3-inventory-guidance>

Moving forward, in 2023, PCG aims to align with PETRONAS goal of fully adhering to the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (2004), IPIECA Climate Change Reporting Framework (2011) and ISO 14064-1: 2018 Greenhouse gases. To provide a total view of emissions across the Group, we will report emissions according to the operational control approach⁴ and equity share approach⁵, and include Scope 1, Scope 2 and Scope 3.

⁴ Operational Control Approach means that a company has authority to implement its operational policies.

⁵ Equity Share Approach reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation.

OUR VALUE CREATION

Integrating Climate Action Into Business

STEPPING UP CLIMATE STRATEGY

PCG continued to implement the Net Zero Carbon Emissions (NZCE) 2050 Roadmap to remain aligned with PETRONAS' aspiration and move towards net zero carbon emissions by 2050. Our key achievement in 2022 was the alignment of our disclosures with the four pillars of TCFD - governance, strategy, risk management and metrics & target. The Board of Directors holds ultimate responsibility in monitoring the implementation of climate-related initiatives and progress towards our set goals and targets.

REDUCING EMISSIONS AT OPERATIONAL ASSETS

One of our strategies in reducing GHG emissions is asset operational optimisation. Under this pathway, energy and process optimisation is continuously implemented on our operating assets. Initiatives such as fuel and steam optimisation, power consumption conservation, Advanced Process Control (APC) and Real-Time Optimizer (RTO) are implemented at our manufacturing plants.

LEVERAGING TECHNOLOGY IN CLIMATE ACTION

We are also embarking on digitalisation to track and optimise energy consumption real-time, which will translate into GHG emissions reduction. We initiated low carbon technology assessment and evaluated the use of renewable energy through solar panel installation at our asset's rooftop. For long term asset decarbonisation, we are also assessing the feasibility of carbon capture and storage integration with current and future assets.

EMBEDDING CLIMATE STRATEGY IN BUSINESS MANAGEMENT

We acknowledge the importance of understanding and responding to climate risks and opportunities. Thus, we integrate climate risks identification, prioritisation management and disclosure processes as well as various GHG mitigation initiatives into our Corporate Risk Profile (CRP).

Climate goals and targets are part of the top management's key performance indicators. They are assessed on their performance in addressing and managing PCG's material sustainability risk including climate-related matters.

CLIMATE CHANGE

In 2022, PCG completed several operational optimisation projects which reduced GHG emissions and that included:

PC Ammonia Sdn Bhd

- High pressure steam venting is reduced leading to less indirect GHG emission due to less steam import from external
- Two sources of off-gases venting reduction resulting in less direct GHG emission due to less flaring

PC Fertiliser Kedah Sdn Bhd

- Minimisation of steam venting which reduced amount of fuel used to generate steam, hence reducing GHG
- Fuel optimisation at flare area, leading to less flaring
- Optimise boiler operation and steam consumption via APC technology
- Improve process optimisation via APC technology

PC Olefins, Glycols and Derivatives Sdn Bhd

- Compressor optimisation

PC Methanol Sdn Bhd

- Optimise steam consumption via APC technology

PC MTBE Sdn Bhd

- Flaring reduction

Kertih Port Sdn Bhd

- Lighting replacement with LED at trestle jetty and canteen area

GHG EMISSIONS AND ENERGY	2020	2021	2022	Mid-Term Target 2024
Scope 1 (million tonnes CO ₂ e)	5.77	5.67	5.70	≤ 6.98 by 2024 (for Scope 1 + Scope 2 emissions)
Scope 2 (million tonnes CO ₂ e)	1.33	1.33	1.35	
GHG Intensity (tonnes CO ₂ e/tonne)	0.66	0.67	0.70	NA
Energy Intensity (GJ/tonne)	15.73	15.76	17.08	NA

OUR ACHIEVEMENTS



Total GHG Reduction in 2022:

55,269  tCO₂e

from GHG emissions reduction projects

Accumulative GHG Reduction:

more than 108,000  tCO₂e

from baseline year 2019

PCG has achieved its reduction target of 100,000 tCO₂e by 2022, ahead of the target year 2024.

NEW PLASTICS ECONOMY



WHY IT MATTERS

PCG recognises that the current linear plastic economy is unsustainable and harmful to the environment, especially when coupled with irresponsible usage and disposal. A paradigm shift is thus required, to transform the linear economy into a circular one. PCG believes that through our New Plastics Economy (NPE) agenda, we can help to achieve this, by removing harmful plastic waste from the environment and turning it into a useful resource. This addresses the need to reduce the use of finite resources in the production of plastic while opening up new value creation opportunities for PCG.

OUR APPROACH

From a broad perspective, PCG's NPE agenda complements the Malaysia Plastics Sustainability Roadmap 2021-2030 that was developed by the Ministry of Natural Resources, Environment and Climate Change. The roadmap governs plastic production, consumption, recycling and waste management in a holistic manner. Our NPE agenda, meanwhile, aims to enable and expand the ecosystem to expedite the goals under the Roadmap. Plastics Sustainability Working Group, of which PCG is a member, creates a strong platform to collectively tackle plastic waste issues in Malaysia together with government agencies, industry and non-governmental organisations.

PCG's holistic approach to NPE covers four workstreams, which are innovation, infrastructure, education and clean-up.

PCG aspires to recover 100% plastic waste equivalent to its domestic polymer sales by 2030.



To achieve this, we forged strategic partnerships and collaborations with various stakeholders including waste management concessionaires, recyclers and technology providers to create innovative solutions enabling plastic circularity ecosystem in Malaysia to enhance the recyclability of plastic materials and regenerate end-of-life plastic into valuable materials.

Under the environmental pillar, we remain focused on environmental stewardship and resource efficiency, integrating NPE efforts in energy optimisation, waste minimisation and water conservation.

NEW PLASTICS ECONOMY

OUR VALUE CREATION

Innovation

- Collaborated with Plastic Energy Ltd to develop an innovative solution turning low quality, mixed plastic waste into naphtha-like pyrolysis oil, which can be further processed to produce certified circular polymers
- Collaborated with ExxonMobil to upgrade the value of plastic waste into circular naphtha by conducting feasibility study for potential use of ExxonMobil's advanced plastic waste recycling technology application at suitable location within PETRONAS production facilities

Education

- Following our development of Plastic, Sustainability & You Education (PSYE) module in 2019, we continued sharing on module usage, and content to selected schools and communities at operation areas before activating the Be Green Programme to impart knowledge on sustainability, plastic and responsible waste management along with the aim of creating awareness on sustainable lifestyle

Infrastructure

- PCG formed collaborations with waste management companies i.e. Alam Flora, KDEB Waste Management, One Biosys and E-Idaman in unlocking the value of plastic waste ecosystem in Malaysia
- Initiated internal and external collaborations to improve the recovery of recyclable materials through our internal 3R programme involving PCG Operating Units and collaboration with other PETRONAS Business Units

Clean-up

- Conducted clean-up initiatives through our Be Green Programme, which encourages surrounding communities in our area of operations to learn about the importance of preserving the environment through proper waste and plastic management and inculcate responsible waste management behaviour



NEW PLASTICS ECONOMY

OUR ACHIEVEMENTS

Progressed the flagship project of plastic waste to naphtha-like pyrolysis oil to the next stage:

Achieved approval to proceed with basic engineering design stage

Signed Memorandum of Understanding (MoU) for security of plastic waste feedstock supplies with KDEB, One Biosys, Alam Flora and E-Idaman

Signed MoU with ExxonMobil on tolling agreement for product offtake and potential technology licensing for future advanced chemical recycling plant

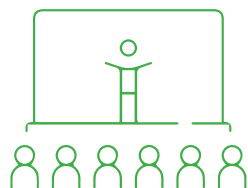
Held sharing sessions with a total of

6

community areas and students from

32

schools around the country



ENVIRONMENTAL STEWARDSHIP



WHY IT MATTERS

We rely on finite natural resources such as energy, water and other minerals as part of our commitment to uphold Operational Excellence. As such, we strive to minimise our negative environmental impacts and conserve the natural environment for future generations. We are committed to using natural resources sustainably by embracing best practices while ensuring all regulatory requirements and recognised industry standards are met.

OUR APPROACH

We continue to adhere to all the applicable environmental regulations in the areas where we operate and remain guided by environmental standards which we subscribe to. In addition, nearly all of our operations have attained ISO 14001:2015 certifications, reflecting PCG's credibility, high standards and commitment to environmental management system. We are also advancing towards digitalising our business operations to reduce the consumption of paper and waste generation.

PCG continued to be guided by its Health, Safety & Environment (HSE) policy, PETRONAS Mandatory Control Framework and Technical Standards which provide guidelines and practices to achieve optimal management of our water, waste and air emissions.

- Conducted face-to-face engagements with the Department of Environment (DOE) state authorities in areas where we operate, for knowledge-sharing of best practices and to identify opportunities to bolster the environment
- Kept up to date with regulatory changes to ensure continuous regulatory compliance

Water & Wastewater

- PCG complies with the PETRONAS Guidelines on Water Practices (WAPS), the PETRONAS Technical Standards (PTS) on Wastewater Management, Water Management and local regulation standards
- In managing our water consumption, PCG utilises a water strategy with the three objectives of conducting water accounting, understanding water availability and increasing water use efficiency
- PCG's operations share water resources with the local communities. As such, we employ a Freshwater Management Procedure to support strategic long-term plans and provide standardised practices for freshwater management. This includes identifying and quantifying major water sources, developing water initiatives/improvement plan, using water system performance as evaluation criteria, developing and executing a maintenance plan for utility and wastewater systems. In addition, we have in place contingency plans for extreme emergencies such as when the primary water supply is disrupted for an extended period
- PCG regularly engages with stakeholders and closely monitors news articles and the media to observe both the short- and long-term water situation and stakeholders' concerns. A scenario analysis was also conducted to understand the potential of conflicts with stakeholders such as local communities or nearby industrial plants due to water resource scarcity or other water-related risks. The analysis showed that there were no conflicts. However, PCG has put in place preventive measures and mitigation actions to deal with potential conflict in the future
- In managing wastewater, the standards we adhere to ensure maintenance of critical equipment and wastewater management during abnormal plant condition. In Kertih, we aim to go beyond regulatory standards, by installing Automated Water Quality Monitoring System (AWQMS) with a lower threshold alarm system for early detection and proactive measures. The internal standards were developed by conducting a water assimilative capacity study which involves the estimation of pollution loads in rivers

Air Emissions

- Conduct real-time monitoring of air emissions via Continuous Emission Monitoring System (CEMS) and Predictive Emission Monitoring System (PEMS)
- Continue implementing the Leak Detection and Repair programme (LDAR) to identify equipment leaks and methane fugitive emissions through a structured maintenance and repair plan

Biodiversity

- We continued collaborating with the Malaysian Nature Society (MNS) to plant mangrove trees under the ecoCare programme. ecoCare is the first environmental education centre in the East Coast of Peninsular Malaysia and promotes awareness on the importance of mangrove ecosystems in protection of biodiversity as well as coastal terrain

Waste

- PCG is guided by the PTS on hazardous waste management and has established the Waste Minimisation Blueprint as an overall guide that promotes 3R for hazardous waste
- Through the implementation of the 3R programme and other efforts, PCG aims to achieve an 82% hazardous waste 3R target by 2024
- Risk assessment and prequalification assessment are conducted on contractors prior to the appointment of contractors to ensure waste contractor responsibly manages the waste until its final disposal
- Regular assurance is conducted to ensure waste is responsibly managed by contractors
- When new types of waste are generated, assessments are conducted to identify waste characteristics which will then be reported to local regulators. We maintain an up-to-date inventory of waste being generated via digitalisation to track and monitor movement of waste from site to third party facility

ENVIRONMENTAL STEWARDSHIP

OUR VALUE CREATION

Water & Wastewater Management

- Fully deployed wastewater (process condensate) recovery at one of our manufacturing plants located at a potentially water-stressed area in Labuan Island, saving freshwater withdrawal up to 1.2 million m³/year
- Conducted a workshop to improve and identify reduction across our manufacturing plants, where we established a potential reduction from the project at 2.7 million m³/year
- Initiated water availability study in our site in PC Fertiliser Kedah in 2022 as a continuation from a Labuan study in 2020
- Installed a solar powered AWQMS, to monitor wastewater discharge quality from the Kertih Integrated Petrochemical Complex (KIPC), Terengganu

Waste Management

- Continued to minimise waste by diverting waste from landfill through increasing the 3R rate for identified waste
- Implemented Operation Clean Sweep to strive for zero pellet, flake and powder loss within our polymer plants, as well as to prevent leakage into the environment
- Utilised the DOE's centralised online system to track and report hazardous waste while optimising and improving waste management through proper segregation and treatment

Air Emissions

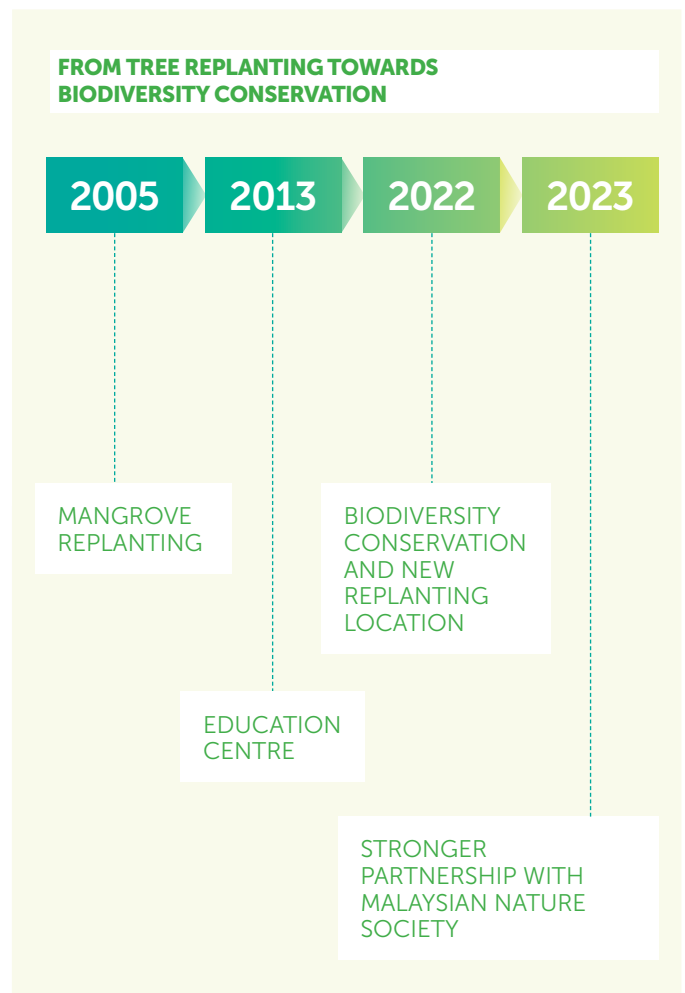
- Mitigate ammonia emissions in ASEAN Bintulu Fertiliser Sdn Bhd by installation of ammonia concentrator to comply with new regulatory requirement
- Reduced NOx emissions in PC Fertiliser Kedah in one of the gas turbine to comply with new regulatory requirement

Environmental Compliance

- Enforced compliance to PCG's HSE Policy by implementing penalties for non-compliance including deductions from employees' salaries, promotions, and contractor payments

Biodiversity

- Organised educational and awareness programmes for students in our ecoCare centre to raise awareness on environmental conservation and restoration



To read more about PCG's effort in biodiversity protection, please refer to the Community Engagement section from pages 79 to 82.

ENVIRONMENTAL STEWARDSHIP

OUR ACHIEVEMENTS

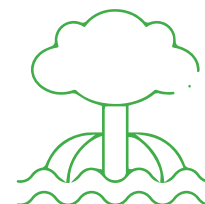
ZERO

non-compliance to
environmental policies,
rules and regulations*



Mangrove trees planted
(for 2022):

3,550



Wastewater Discharge	2020	2021	2022
Wastewater Discharge, COD (tonne)	177.8	171.4	204.2
COD Intensity (tonne/kilotonne)	0.02	0.02	0.02

Freshwater Withdrawal	2020	2021	2022
Freshwater Withdrawal (Million m ³)	37.83	38.52	39.06
Freshwater Withdrawal Intensity (m ³ /tonne)	3.53	3.69	3.89

Air Emissions	2020	2021	2022
Air Quality NOx (kilotonne)	23.31	25.07	18.51
Air Quality SOx (kilotonne)	0.34	0.27	0.19
Air Emissions Intensity (tonne/kilotonne)	2.21	2.42	1.86

Hazardous Waste	2020	2021	2022
Hazardous Waste Generation (kilotonne)	27.0	26.2	29.4
Hazardous Waste Underwent 3R (kilotonne)	22.9	19.7	22.3
Hazardous Waste Final Disposal (kilotonne)	5.2	6.4	6.6
Hazardous Waste 3R Rate (%)	85	75	76

* Non-compliance of threshold above USD100,000

SUSTAINABILITY AT PERSTORP GROUP



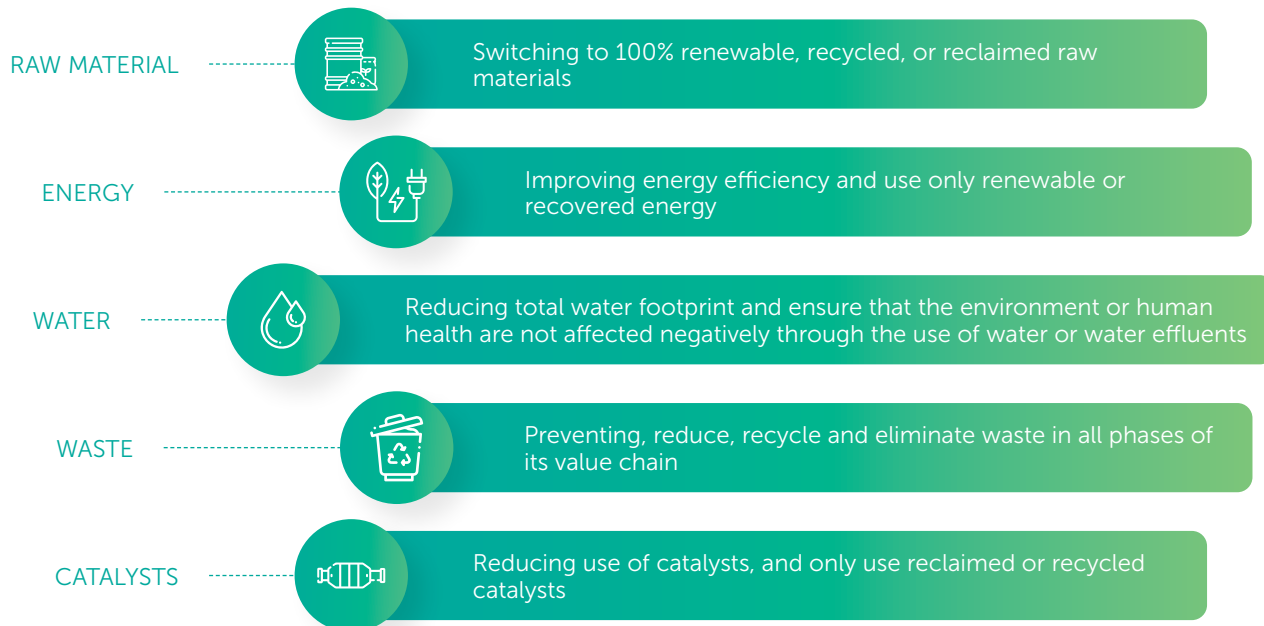
BRINGING US ONE STEP CLOSER TO A GREENER TOMORROW WITH PRO- ENVIRONMENT SOLUTIONS

As a leading specialty chemicals innovator, Perstorp Group's ISCC-certified* Pro-Environment portfolio enables customers' sustainable transformation. By expanding its Pro-Environment portfolio, Perstorp Group can assist more business organisations further down the value chain in their own sustainable transformation process.

OUR APPROACH

In line with Perstorp Group's aim in becoming a leader in renewable products and solutions, as well as proactively driving sustainability transformation in society within which they operate, the organisation is working towards transforming its own product range and reducing its environmental impact. This includes:

- Achieving long term ambition to become Finite Material Neutral
 - Finite Material Neutral means switching from using finite resources such as fossil fuels to materials that renewable, recycled or recovered at its production plants. It focuses on the following five focus areas:



- Setting ambitious targets to reduce their own environmental footprint

GREENHOUSE GAS EMISSION TARGETS 2030

- Scope 1 & 2 emissions - absolute CO₂e reduction of 46.2% from a 2019 base year
- Scope 3 emissions - CO₂e reduction of 27.8% per tonne product sold from a 2019 base year

WATER AND WASTE TARGETS 2030

- 30% absolute reduction of freshwater consumption, from a 2019 base year
- 30% absolute reduction of hazardous and non-hazardous waste directed to disposal, from a 2019 base year

(ECO) TOXIC IMPACT TARGETS 2030

- No chemicals of concern should reach the consumer or professional market
- Newly developed products should be safe and sustainable by design

We will continue to develop more sustainable products in the coming years. Some of the renewable alternatives and projects include:

PROJECT AIR

Project Air is a gamechanger for the chemical industry, moving from fossil to circularly produced feedstock, thereby enabling sustainable chemical products to a large variety of industries and end products. Project Air is based on innovative usage of existing technology in a large-scale industrial application to produce sustainable methanol. It is one of the 17 European projects that received funding support from the European Union Innovation Fund in 2022.

2-EH PRO25 - WORLD'S FIRST 2-ETHYLHEXANOL PARTLY BASED ON RENEWABLES

Based on 25% renewable raw material, 2-EH Pro25 helps to reduce carbon footprint along the value chain by supporting sustainable sourcing of renewable and recycled raw materials. As a Pro-Environment product, it is chemically identical to its fossil-based counterparts while offering the same quality without trade-off in performance. The difference lies in the origin of the raw materials, being renewable or recycled, instead of virgin fossil based. This product can thus be considered a drop-in replacement and ready to be used in existing formulations.

TURNING PLASTIC WASTE INTO VALUABLE PRO-ENVIRONMENT SOLUTIONS

Perstorp Group is constantly looking for ways to reduce carbon footprint in its value chains and is currently developing several projects. These include chemical recycling of PET plastic waste into BHET - a chemical that could complement our Pro-Environment offering, producing synthesis gas from pyrolysis oil to replace current fossil-based feedstock and investing in wastewater recycling for Perstorp Group's production plant in Stenungsund, Sweden.

* ISCC refers to International Sustainability & Carbon Certification

HUMAN RIGHTS



WHY IT MATTERS

We believe that everyone deserves to be treated with dignity, fairness, respect and equality—regardless of gender, religion or race. We take pride in our commitment to protect the rights of employees, consumers and communities. PCG is committed to ensure that all its employees are guaranteed their basic human rights, which include non-discrimination, freedom of association, the right to education and safety, and access to basic necessities. This also means treating all employees with respect and having zero tolerance for discrimination, harassment or bigotry.

PCG is committed to protecting and promoting human rights, including the rights of our employees, suppliers and other stakeholders. We strive to maintain fair employment practices and remuneration as well as creating a conducive and inclusive work environment. This fosters innovation and creativity among employees while providing safety assurance and support to suppliers and stakeholders.










OUR APPROACH

As a responsible corporate citizen, PCG endeavours to uphold and advocate human rights and fair labour practices across our operations. We are guided by our human rights commitment standards and guidelines, which are in alignment with PETRONAS' Human Rights Commitments and the United Nations (UN) Guiding Principles on Business and Human Rights. Our commitment to human rights sets out our expectations for good governance and supports our Company's compliance with national laws and legislation. It ensures that our operations are managed according to human rights principles, laws, best industry practices and standards.

We value the rights of people, communities and other stakeholders, including employees, contractors and any third parties who work within our premises or represent PCG. Thus, we comply with PETRONAS' Code of Conduct and Business Ethics (CoBE) and all its relevant labour laws and employees' rights. The CoBE was revised in 2022 to ensure our human rights protection covers child labour and human trafficking or modern slavery, including forced, bonded or involuntary labour. All of PCG's directors, employees, contractors, suppliers and other third parties who work within its premises or on behalf of PETRONAS Group are required to comply with the CoBE.

The Group also ensures the protection of non-executive employees' rights by respecting their rights to participate in workers' unions. The collective bargaining agreement process is led by PETRONAS' Group Industrial Relations, together with union and management representatives. Furthermore, we endeavour to respect the rights and safety of the local communities and stakeholders in the areas where we operate.

Our contractors and suppliers are expected to uphold human rights and comply with all the requirements stated in the PETRONAS' Contractors Code of Conduct on Human Rights (CoCHR) by adhering to the following:

	<p>FREEDOM OF LABOUR</p> <p>by not engaging or employing people, under any circumstances, against their own free will or engaging in bonded labour/debt slavery</p>
	<p>WAGES AND BENEFITS</p> <p>by complying with all applicable laws related to employee compensation, including minimum wages, overtime hours and legally mandated benefits</p>
	<p>ESTABLISH GRIEVANCE MECHANISMS</p> <p>by providing a means of grievance reporting and appropriate follow-up measures while ensuring that the identity of the complainant is protected</p>
	<p>FREEDOM OF ASSOCIATION</p> <p>by respecting the legal rights of employees to become members of a labour union, etc.</p>
	<p>FOREIGN AND MIGRANT WORKERS</p> <p>by employing them in full compliance with the labour and immigration laws of the host country</p>
	<p>HUMANE TREATMENT</p> <p>by respecting employees' rights and ensuring no harsh and inhumane treatment, including any form of mental or physical coercion, or verbal abuse</p>
	<p>NON-DISCRIMINATION</p> <p>by respecting diversity in the workplace and not engaging in any form of unlawful discrimination based on gender, race, ethnicity, skin colour, religion, nationality, sexual orientation, age, marital status, pregnancy, political affiliation or disability in hiring and employment practices</p>
	<p>WORKING HOURS</p> <p>by complying with local laws of the host country or agreements regarding working hours, overtime hours and work during holidays</p>
	<p>PREVENTION OF CHILD LABOUR</p> <p>by not employing children below the legal minimum working age requirement of any country (generally at least 18 years old)</p>



HUMAN RIGHTS

OUR VALUE CREATION

Human Rights

- Continued to educate employees and increase their awareness of human rights through a mandatory e-learning module
- Continued to ensure that a collective bargaining agreement process with employee unions is conducted every three years. The process is led by PETRONAS' Group Industrial Relations and head representatives from various operating units. The last collective bargaining agreement process was held in 2021 for the Collective Agreement 2022-2024
- Carried out the Social Risk Assessment (SRA) to assess and mitigate the social risks of our operations, particularly human rights risks, and manage both positive and adverse impacts of our business activities, including impacts generated through relationships with our partners and contractors. The SRA is anchored on internal principles and standards that are in line with the UN Guiding Principles on Business and Human Rights, the International Petroleum Industry Environmental Conservation Association and other industry best practices. It complies with PETRONAS' Human Rights Commitments and focuses on labour and working conditions, responsible security, community well-being and supply chain management. The SRA will enable PCG operational units to identify human rights risks within their boundaries
- Our community engagement enables us to implement a formal grievance mechanism system, which serves as a channel for access to remedies. It plays a critical role in opening channels for dialogue, problem-solving and investigation and provides a remedy where required. Our grievance mechanism enables workers and other rights-holders to raise complaints freely and obtain effective and transparent solutions. It also allows pre-emptive action to be taken to prevent a recurrence

Employee Well-being

We continued implementing Flexible Work Arrangements (FWA) to promote work-life balance. This flexibility enables employees to balance their personal and family commitments and contribute to their teams while maintaining mental wellness and increasing productivity. In 2022, the FWA was enhanced with the implementation of FlexiWork Arrangement.

- Flexible Working Hours (FWH)** - Allows employees to start work between 7 am and 10 am and finish between 4 pm and 7 pm, with completion of minimum of eight hours of work.
- Compressed Work Week (CWW)** - Allows employees to end work at noon on the fifth day of the work week once they have completed their required 39 hours of work for the week.
- Work arrangements due to pandemic and disease** - Implemented throughout the COVID-19 pandemic until May 2022. Special working arrangements were also implemented for employees with dependent(s) affected by infectious diseases.
- Leaving Earlier from Work (LEFW)** - Allows pregnant employees in their 28th week (month seven) to leave work one hour earlier than the prescribed working hours.
- Connectivity Assistance** - Continued to provide monthly internet connectivity to support flexibility working arrangements (working from home) implementation.
- Enhanced FlexiWork Arrangement** - Provides work flexibility to employees having Work From Home (WFH) to create the 'right environment' with three guardrails—setting the office as the default workplace; capping the number of work-from-home days to eight days a month; and allowing supervisors to approve work-from-home applications.

Employee Facilities

- PETRONITA Crèche** - PCG supported the establishment of PETRONITA Crèche, a childcare initiative by the association of wives and female employees to support working parents. Available at our Headquarters, the crèche provides working parents with greater flexibility in their schedules and allows them to be at their best in their careers.
- Nursing Room** - In support of nursing mothers, we provide nursing rooms equipped with all the necessary facilities such as refrigerators, sofas and power supply cables.
- Fitness center** - Establishment of fitness center at most of our premises to improve employee physical health and wellness.

Special Needs Children Benefits

This was newly introduced in 2022 to support parents with special needs children:

- It provides financial assistance to employees to cover the treatment expenses related to their children's needs.
- Employees can utilise their CWW on any day of the week as long as the 39 working hours are fulfilled. This is to allow employees to bring their special needs children to the required treatment/therapy.

Flexible Attire at Work

We continued with the FLEXWEAR (smart casual attire) initiative to foster a positive, flexible and inclusive work environment.

Leave

- Maternity Leave** - Female employees are entitled to three months of fully paid maternity leave, which allows them to observe the confinement period and recuperate from childbirth, enabling quality bonding time between the mother and the baby. Effective 1 January 2023, maternity leave has been revised to 98 days, aligned with the amendments to the Employment Act 1995.
- Paternity Leave** - Male employees are entitled to five days of paternity leave.

HUMAN RIGHTS

- (iii) **Leave Without Pay (LWP)** - Employees are allowed to apply for leave without pay to attend to important personal matters or when they have exhausted their other available leave entitlements for a maximum of 365 days.
- (iv) **Spousal Assistance with Leave Without Pay (LWP)** - Employees are eligible for leave without pay of up to 36 months on overseas assignments, in addition to the current LWP allowance of 365 days.

Health

In addition to our ongoing MESTIfit4Health initiative, various initiatives were implemented to focus on the mental health of our employees:

- (i) **'MIND-A-CARE' programme** - 12 sessions were conducted to create awareness of early detection and prevention of mental health issues among employees.
- (ii) **'Care for Manager' programme** - Four sessions were carried out to improve Management's awareness and understanding of mental health, fostering empathy and communication skills to provide immediate support to subordinates.
- (iii) **'MIND-A-CARE Ambassador' programme** - 17 employees were trained and certified as MIND-A-CARE ambassadors, a newly implemented initiative in 2022 to better promote mental healthcare.
- (iv) **Preventive Health Screening** - A medical screening entitlement for employees aged 30 years and above to encourage employees to care for their health.
- (v) **Employee Assistance Programme (EAP)** - A worksite-based programme designed to support employees in dealing with issues that may adversely impact their health, work performance and well-being. The EAP provides:
 - a. Remote consultation, which provides virtual one-on-one coaching sessions to assist employees with any issues affecting their lives.
 - b. myFriends digital coaching, which connects participating employees with multidisciplinary coaches who will guide them in acquiring new skills and knowledge to achieve their personal and/or professional goals.

¹ For more information about PCG's initiatives on employees' health and well-being, please refer to the Workplace and Occupational Safety and Health section from pages 68 to 73 in this Report.

Employee Appreciation

- **PCG Long Service Award (LSA)** - An annual event to recognise employees who have continuously served the Company for 15, 20, 25, 30 and 35 years, together with retirees. The event serves as an avenue for Management to directly engage with the recipients. In 2022, a total of 378 employees received the LSA
- **Appreciation Lunch with SVP/CEO PCG** - A platform to reward and recognise notable achievements or performance of young executives

- **Festival Celebrations** - An annual event to celebrate multicultural employees i.e. Raya, Chinese New Year, Christmas, Gawai Festival, etc.

Engagement Sessions

- **Union Quarterly Engagement** - An engagement session between our unions (comprising KAPENAS and KEPKO*) and Management to address and discuss union matters, encompassing collective agreement provisions and implementation matters. This includes terms and conditions for non-executives, which are not stated in the collective agreement
- **Integrity campaign** - A knowledge-sharing initiative to create awareness of the relevant laws related to integrity and enable employees to share learning experiences and knowledge of lessons learnt. It also helps to improve employees' understanding of PETRONAS' Integrity and CoBE, in addition to encouraging employees to contribute to a workplace that is free from any element of conflict of integrity
- **Human Resource (HR) Engagement** - A platform for employees to enrich their knowledge on HR-related topics and keep abreast with latest HR updates that has helped to improve employee productivity and created better collaboration between HR and business line
- **PCG Townhall** - A yearly meeting that serves as an avenue to connect the leaders and employees of all levels across the organisation with the purpose of sharing key Company updates, business results and highlights together with future plans. In 2022, the townhall meeting was conducted in a virtual mode
- **Open Mic session** - A knowledge-sharing session to allow leaders to share insights on current issues or topics to inspire and connect with employees in a non-formal setting. A total of nine sessions were held in 2022

* Note: KAPENAS refers to *Kesatuan Kakitangan PETROLIAM NASIONAL BERHAD* while KEPKO refers to *Kesatuan Pekerja-Pekerja OPTIMAL Chemicals (M) Sdn Bhd*. Both unions represent non-executives.

Clubs

- **Kelab Sukan dan Rekreasi PETRONAS (KSRP)** - Established to instill and foster a sense of belonging among PETRONAS employees. It aims to create positive physical, mental and personal fitness among the members. In 2022, 2,392 PCG employees are members of the club
- **PETRONITA** - Association of wives and female staff of PETRONAS that serves as a platform for networking and getting involved in social, sports, recreational, welfare and education activities with members and the local communities. 738 PCG employees are members of the association



HUMAN RIGHTS

OUR VALUE CREATION

Diversity & Inclusion

Embracing diversity and inclusion at the workplace is a vital component for sustainable growth at PCG as it allows us to draw on the unique experiences, skill sets and perspectives of employees with different backgrounds. In Q4 2022, we adopted PETRONAS' Diversity & Inclusion (D&I) statement to further underpin our commitment to diversity and inclusion, as well as upholding zero tolerance for all forms of discrimination regardless of age, ethnicity, gender, nationality, religion and culture. The D&I statement, which is available on the PETRONAS corporate website, focuses on gender, multinationalism, culture and age, and sets out targets for each of the focus areas, as illustrated in the infographic below.

PETRONAS D&I STATEMENT WITH TARGETS

FOCUS AREA	LONG-TERM ASPIRATION	2022	TARGET 2026
GENDER	WOMEN IN SENIOR LEADERSHIP <ul style="list-style-type: none"> Providing opportunities for women representative in senior leadership positions to ensure diversity of perspectives and ideas in decision making 	 29%	 30%
MULTINATIONAL	DIVERSE NATIONALITIES' REPRESENTATION IN SENIOR LEADERSHIP <ul style="list-style-type: none"> Building and having qualified local nationals to fill the majority of the decision making positions in every country we operate in and having readily available local talent to take up leadership roles globally 	 16%	 20%
AGE	SPACE FOR IDEA GENERATION FROM YOUNG TALENTS ENABLED <ul style="list-style-type: none"> Creating an innovation organisation where young talents feel involved, connected and inspired to contribute new ideas and constantly explore new ways of doing things 	 20%	 30%
CULTURE	DIFFERENCES IN PERSPECTIVES ARE RESPECTED AND VALUED <ul style="list-style-type: none"> Creating an environment where people feel safe and confident to speak up and put different views across to foster creativity and innovation 	 POCS Results (D&I Module)	 POCS Results (D&I Module)

* Note: POCS refers to the PETRONAS Organisational Culture Survey.

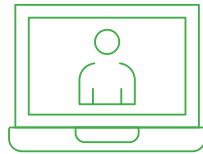
Upskilling and CoBE Refresher

We conducted upskilling sessions for managers through the Industrial Relations (IR) for Leaders and refresher training on the PETRONAS Code of Conduct and Business Ethics (CoBE).

HUMAN RIGHTS

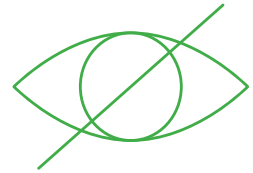
OUR ACHIEVEMENTS

93%



of employees completed the human rights e-learning module

ZERO



incidents of discrimination

ZERO



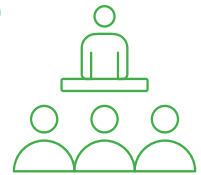
incidents of violations involving:

- Rights of indigenous peoples
- Child labour, forced or compulsory labour and modern slavery across PCG's operations and supply chain

HUMAN RIGHTS

and CoBE training sessions:

- Industrial Relations (IR) for Leaders
- Integrity briefings and training
- Refresher on CoBE at workplace



UNION MEMBERS	2020	2021	2022
Percentage of union members out of total support staff (%)	76.0	74.6	88.8
Percentage of total employees covered by collective bargaining agreements (%)	41.5	37.9	47.9

WORKPLACE AND OCCUPATIONAL SAFETY & HEALTH



WHY IT MATTERS

Inculcating a strong occupational safety and health (OSH) culture in any business will help the organisation thrive. At PCG, we are committed to keeping our employees and workers safe by ensuring the Health, Safety and Environment (HSE) Management System and practices are entrenched across our business operations to reduce disruptions and optimise operational efficiency. We want to prevent major accidents hazard (MAH) through effective Process Safety Management, which focuses on minimising or preventing the consequences of hazardous chemical releases in our workplaces.

Upholding good workplace and OSH practices also ensures high standards and regulatory compliance and mitigates financial, legal and operational risks. A strong OSH culture safeguards our employees and assets, maintains the trust of our stakeholders and secures our license to operate. Providing a safe workplace will boost employee morale and lead to better productivity, enabling our workforce to deliver excellence in their day-to-day activities.

OUR APPROACH

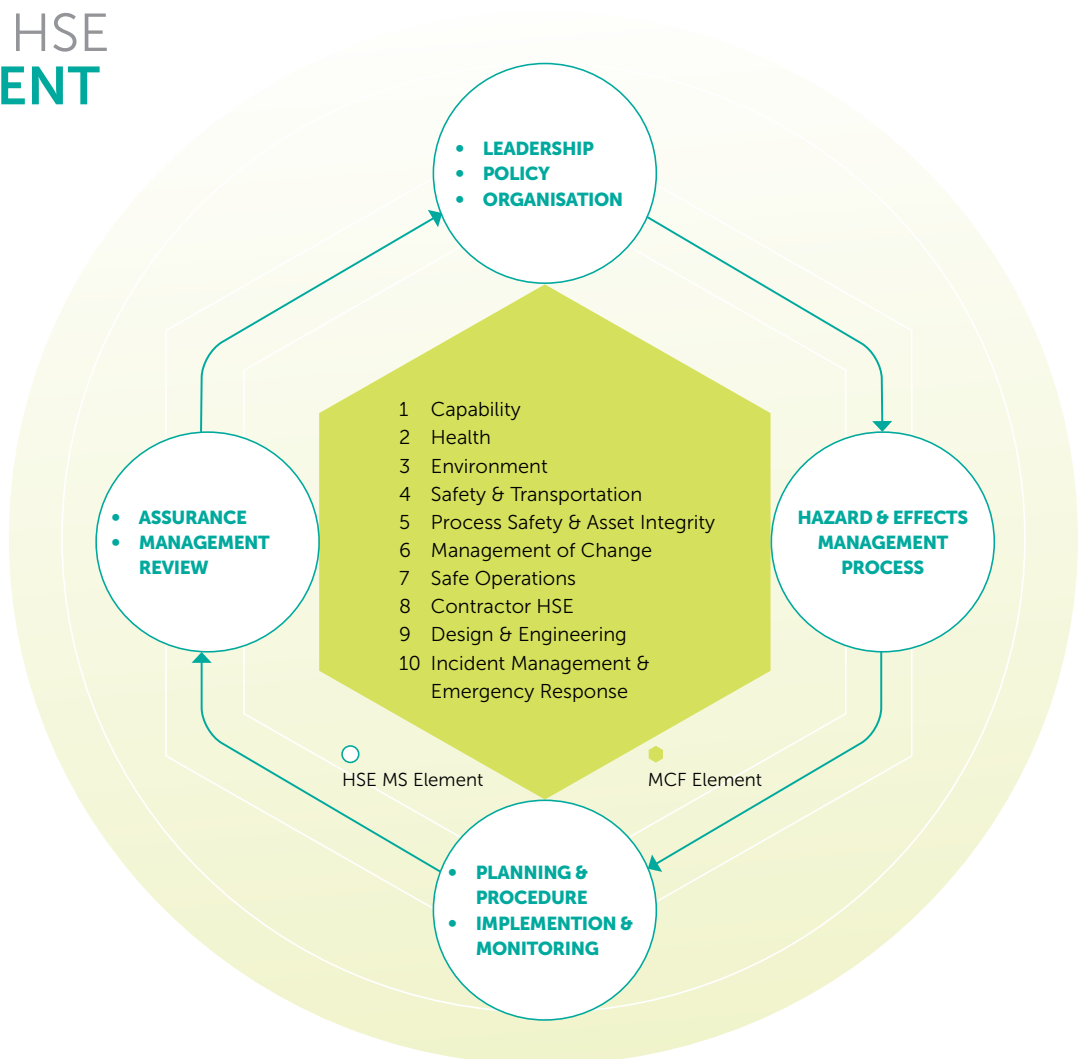
We strive to inculcate a culture of Health, Safety and Environment (HSE) Excellence and maintain a world-class HSE performance. In 2022, we introduced the “Strive for Zero, Zero is Possible” tagline in moving towards ZERO major HSE incidents and providing a safe work environment at all operational sites. This also supports journey towards a generative HSE culture that prioritises workplace, safety and health.

PCG is guided by its HSE Strategy and our goal to deliver world-class HSE performance and to instill a generative culture within the organisation, including in its contractors and partners.

PETRONAS HSE MANAGEMENT SYSTEM

All our operations adhere to the PETRONAS HSE Management System, which focuses on both human and systems’ capabilities in driving HSE Excellence. The HSE Management System covers 100% of our business activities. We also encourage our joint ventures and non-managed operations, along with other key business partners such as suppliers, contractors, suppliers and other licensees, outsourcing partners and anyone who acts on behalf of PCG, to uphold the HSE Management System.

PETRONAS HSE MANAGEMENT SYSTEM



The PETRONAS HSE Management System comprises eight elements that regulate the Groupwide implementation of mandatory HSE requirements, which are part of the Mandatory Control Framework (MCF), as illustrated above. The MCF outlines clear and prescriptive requirements in managing 10 identified focus areas of significant HSE risks.

The implementation of the HSE Management System and its integrated requirements are governed by the PETRONAS Technical Standards (PTS) to ensure standardised technical practices across the Group. All PETRONAS-operated facilities are required to comply with the mandatory PTS. The requirement also applies to businesses or operations with 50% or more shares and/or operational control by PETRONAS, which include all phases of work activities.



WORKPLACE AND OCCUPATIONAL SAFETY & HEALTH

PCG HSE STRATEGY

We remain guided by the PCG HSE Strategy, which is anchored to the pillars of Culture, Compliance and Competency.

Sustaining Best-In-Class HSE Performance

Strive for ZERO, ZERO is Possible

CULTURE

Reinforce leadership roles and instill personal accountability at all levels in amplifying Generative Culture.

COMPLIANCE

Intensify efforts to strengthen compliance with established HSE Systems and procedures.

COMPETENCY

Intensify human, assets and systems capability in driving HSE Excellence.

OWNERSHIP Leaders are role model and everyone has strong ownership over HSE, as we believe HSE creates value and is good for business.

COURAGEOUS We feel safe to intervene when we see unsafe conditions and behaviours, and welcome such intervention from our co-workers.

MINDFUL We are conscious about HSE in what we do because it is the right thing to do, not because somebody is watching.

INTERDEPENDENT We look out for each other because potential risks and errors are always at the top of our minds, and because nobody has all the answers.

HSE GOVERNANCE

To ensure full regulatory and health and safety compliance, each of our operational sites is governed by a HSE Committee that consists of Management and employee representatives. The HSE Committee meets at least once every three months and a meeting convenes immediately should a major incident occur.

Chaired by the Head of Plant, the HSE Committee has oversight of HSE matters including rules, regulations, training and awareness. It also ensures the effectiveness of PCG’s HSE Policy, as well as all HSE programmes and work procedures. The HSE Committee’s responsibilities include managing environmental-related issues and investigating reported incidents/accidents before recommending mitigation measures.

While HSE matters are usually discussed on platforms such as the PCG Board Meeting and the Sustainability and Risk Management Committee, PCG’s MD/CEO also chairs a specific ‘Focused HSE MC Meeting’ twice a year (or once every six months) to update the Management Committee on the status of the HSE strategy and initiatives.

WORKPLACE AND OCCUPATIONAL SAFETY & HEALTH

OUR VALUE CREATION

Culture

In our aspiration to achieve a generative culture, several initiatives were undertaken, including a HSSE Culture Maturity Survey to gauge HSE culture in PCG in 2021.

- Enhanced Focused Learning of past HSE and Process Safety Incidents that occurred in PCG Operating Units (OPUs), e.g. minor fire intervention
- Focused on achieving HSE Generative Culture through strengthening Felt Leadership programme by:
 - Introducing a QR code survey to gauge the effectiveness of leaders' engagement
 - Extending Felt Leadership programme to contractors' management and PCG's executives
- Implemented Accountability Behaviour Reinforcement (ABR) to strengthen HSE culture and enhance compliance with HSE requirements
- Continued promoting '8 Golden Rules of Process Safety, focusing on lesson learn and best practices
- Engaged top leaders to focus on employees' state of well-being through implementation of Leaders' Reach Out (LRO) and MIND-A-CARE (for Managers) which included the element of practising Psychological Safety in the workplace

The journey to Generative Culture is illustrated in the following infographic. We achieved a score of 4.06 in the HSSE Culture Maturity Survey, which reflects high level culture maturity in PCG.



Compliance

- Ensured compliance with PCG's Road Transport Operational Guideline (RTOG) with effective mitigation measures such as:
 - Implementing HSE digital tools to register all drivers, fleets and equipment, enable in-vehicle monitoring system, and monitor driving and journey compliance
 - Introducing FReSH (Fatigue Remedy & Sleep Hygiene) programme to all hauliers
- Completed Noise Risk Assessment, Chemical Health Risk Assessment and chemical exposure monitoring at our facilities
- Heightened compliance to Operating Procedure (OP) and Management of Change (MOC) to manage process hazards effectively and prevent process safety incidents
- Standardised the HSE implementation across PCG through turnaround (TA) standardisation & contractor HSE management to circumvent the potential violations by employees and contractors
- Developed and deployed Safe Work Control & Barrier Management (SWCBM) by leveraging digital solutions to improve compliance with PTW, increase productivity by reducing issuance time and effectively manage Safety Critical Equipment (SCE)

Competency

- Continued implementing the Road Transport Operational Guideline modules, personnel upskilling and coaching for leadership management, vehicle management and journey management in ensuring effectiveness towards safe product deliveries
- Rolled out MIND-A-CARE competency for the mental health "ambassadors" who act as roving goodwill representatives, promoting mental health amongst colleagues in respective departments and businesses. The proprietary **CARE** approach is utilised, referring to Check for signals, Apply non-judgemental conversation, Reassure support with information, and Ensure help is received



WORKPLACE AND OCCUPATIONAL SAFETY & HEALTH

OUR VALUE CREATION

COVID-19

- Continued participation in the PCG Pandemic Preparedness Response Team (PPRT) to ensure smooth daily operations as the organisation transitioned to Business As Usual in 2022
- Ensured crucial plant operations were uninterrupted during turnarounds by keeping both our people and assets safe

Hazard Identification

Identifying hazards at the workplace and across our operational sites is vital in mitigating health and safety risk. We identify and manage hazards using the HSE Management System, which highlights four key steps: Identify, Assess, Control and Recover. We also utilise the Incident Management System (IMS) as a guide when investigating any incidents within PCG.

HSE UAUC (Unsafe Act, Unsafe Condition)

PCG has adopted the HSE UAUC programme since its launch in 2020 by PETRONAS Group HSE to enable workers to raise concerns about any unsafe acts and unsafe conditions. The system, which is capable of conducting predictive analysis and assist HSE personnel in mitigating HSE incidents, also allows workers to provide suggestions for safety improvements. The UAUC is accessible via its mobile application, which allows real-time reporting for immediate action.

PCG HSE Training Matrix

This programme aims to govern and illustrate required HSE training for each target group by position, driven by HSE and regulatory needs. This ensures training for HSE competencies required by PETRONAS and the regulators is covered across PCG operations.

Promotion of Worker Health

We provide and encourage our employees to attend preventive health screenings with the intention to promote the health and well-being of our personnel. The emphasis in 2022 was on mental health, although other programmes covering physical health and sleep hygiene were also implemented. We continued to support MESTIfit4Health, an ongoing initiative that promotes a holistic framework of wellness, covering various aspects of health.

WORKPLACE AND OCCUPATIONAL SAFETY & HEALTH

OUR ACHIEVEMENTS

Occupational Safety & Health	2020	2021	2022
Fatalities (Number of cases)	0	0	0
Lost Time Injury Frequency (Number of LTIs per Million man-hours)	0.14	0.07	0.17
Lost Time Injury (Number of cases)	3	2	4
Total Recordable Occupational Illness Frequency (Number of Occupational Illness per Million man-hours)	0.30	0.09	0.00
Total Recordable Case Frequency (Number of TRCs per Million man-hours)	0.23	0.28	0.50
Total Recordable Case (Number of cases)	5	8	12

Tier-1 Process Safety Event	2020	2021	2022
Tier-1 Process Safety Event	3	1	1



TALENT DEVELOPMENT



WHY IT MATTERS

Talent development is one of our top priorities in driving forward PCG's strategies and accelerate growth within our business. It is important to consistently expand the capabilities and skills of our employees to enable them to realise their full potential, encouraging them to excel personally and professionally. Beyond that, our efforts in talent development allow us to attract and retain high-performing talents, equipping them with the right skills that are relevant to their jobs, which will drive productivity across our operations.

We seek to enhance employees' competencies through careful planning, selecting and implementing of development strategies to ensure our talents are constantly developing in an ever-changing business landscape. Ultimately, we strive to cultivate an inclusive, diverse and empowering work culture that will enhance efficiency, increase agility, enable better decision-making and improve our overall performance to future-proof our business.

OUR APPROACH

Creating a high-performance culture requires a systematic approach in managing the performance of organisations, teams and individuals. The Group is guided by the PETRONAS Learning and Development Framework, focusing on leadership and technical competencies anchored to the principle of continuous learning.

In managing our talents, we internalise the PETRONAS Employee Value Proposition (EVP) of Trust, Grow and Reward to attract new talents and to retain the best talents. We continue to enhance our performance management, focusing on performance and development, to ensure talents achieve their full potential, aligned with our strategic business outcomes.

We pay close attention to employees' professional and personal growth. The organisation identifies employees' aspirations to further develop their potential and provides opportunities to enrich their capabilities and experience to pursue fulfilling careers.



Our talent development programmes anchored on blended learning approach which include physical and virtual trainings, digital self-learning platforms, coaching and mentoring and on-the-job training. Our employees at all levels are given access to a variety of learning programmes and platform in order to meet the demands of the ever-changing business environment.



TALENT DEVELOPMENT

OUR VALUE CREATION

Talent Development Programmes

- Continuously designed and implemented Leadership and Technical Capability Development programmes to enhance the capability of our staff and develop them towards becoming a highly engaged, empowered and capable workforce, leveraging on digital learning and competency management platform, i.e. myLearningX and myCareerX

myLearningX

- The all new intuitive learning platform, myLearningX, was introduced to offer personalised and flexible learning options to employees and motivate them for self-driven learning and competency development. The platform includes the Harvard Manage Mentor (HMM)/Harvard Manage Mentor Sparks (HMMS) series which enables on-the-go learning experience through its concise learning content

myCareerX

- myCareerX is a platform that leverages on artificial intelligence to observe the overall organisation's talent as well as employees' insights of their personal competency and potential areas for development

- Implemented the following initiatives:
 - Superior Managed Assessment (SMA)**
A transparent and easily accessible system developed to encourage an open and self-driven approach to managing competency development. Each individual's progression will eventually be linked to their own pace and desire to develop their own competencies, allowing employees to amplify their skill sets to match the specialisation required by different parts of the organisation
 - myCareerX Talent Competency Dashboard**
As part of the SMA, this tool allows employees to develop their own competencies at their own pace. They can elevate their skill sets as required by the business by focusing on technical and leadership competency
 - Intensify Virtual and Digital Learning Experience**
 - Launched the PCG Digital Learning Campaign to intensify virtual and digital learning experiences. The campaign included an e-learning competition, which rewarded participating employees who logged the highest number of completions of the digital learning content of the HMM/HMMS on the myLearningX platform
 - PETRONAS' myLearningX continues to be the go-to digital learning platform where online content is accessible to everyone in the organisation. The platform includes the 42 HMM modules and 41 modules under the HMMS series which enable a more personalised learning experience through its short burst of learning content. In addition, the meticulously curated learning content in the mobile applications such as SWITCH, will equip employees with the latest knowledge on topics such as Cybersecurity, Agile Way of Working and Digital Initiatives anytime, anywhere
 - Internship Programme**
The Internship Programme is designed to provide undergraduate students with practical experiences related to their academic backgrounds for a duration specified by their academic institutions

TALENT DEVELOPMENT

- **Skim Latihan 1Malaysia/Graduate Employability Enhancement Scheme**

The Graduate Employability Enhancement Scheme, better known as the SL1M-GEES-PETRONAS, is a soft skills training programme developed by PETRONAS in collaboration with the Government of Malaysia's Skim Latihan 1Malaysia initiative. The scheme seeks to enhance the marketability and employability of Malaysian graduates. The one-year experiential training programme is focused on helping unemployed graduates acquire critical soft skills and equips them with a diverse set of personal attributes in preparation to work in a business/corporate environment. While undergoing these programmes, the trainees were also exposed to the Company's high-performing work culture, setting an example of a positive behaviour for them at their future workplaces

- **Leadership Development Programme**

- **Leadership Development in Action (LDA)**

Continuous implementation of the Leadership Development in Action (LDA) for potential leaders. Ten identified candidates are coached by an assigned trainer and involved in cross-functional assignment/project for a defined period. The programme was developed in collaboration with subject matter experts from manufacturing, commercial and strategy

- **PCG Acceleration and Enrichment Programme for Managers (PACE4M)**

PACE4M is a customised programme designed for newly appointed Managers to strengthen their Human Resource and Leadership competencies. The programme aims to empower, enable and produce agile managers, in line with PCG talent aspiration

- **Employee Performance Management (EPM)**

Overall employee performance is objectively assessed and differentiated based of their performance and demonstration of PETRONAS Cultural Belief (PCB) behaviours. A performance conversation takes place between employees and their managers where regular feedback is provided throughout the cycle based on agreed-upon goals. During the year under review, 100% of eligible employees completed their EPM assessments



TALENT DEVELOPMENT

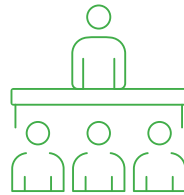
OUR ACHIEVEMENTS

PCG Digital Learning Campaign

Attracted

1,580 participants

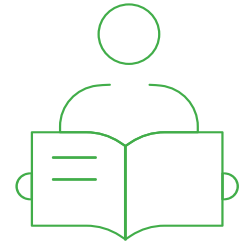
Rewarded 110 employees as winners



PCG Internship Programme

317 students

from overseas and local universities spent between three to eight months in their assigned departments across PCG assets

Skim Latihan 1Malaysia/
Graduate Employability
Enhancement Scheme

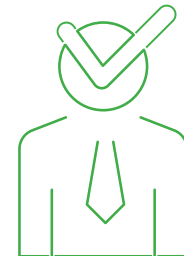
143 trainees

consisting of technical and non-technical graduates

PCG Acceleration and
Enrichment Programme
for Managers (PACE4M)

43 new managers

participated in PACE4M



CAPABILITY DEVELOPMENT

	2020	2021	2022
Average amount spent per Full Time Equivalent (FTE) on training and development (RM)	3,981	1,564	5,631
Total investment in employee training and development (RM Million)	17.6	6.9	24.4
Average training per employee (man-days)	3.3	3.0	10.2
Capability assessment (%)	95	96	88
Technical professionals developed	20	14	14
Success rate of Technical Professionals developed (%)	51	37	48

* Note: Reflected data does not include BRB Group and Perstorp Group.

COMMUNITY ENGAGEMENT



WHY IT MATTERS

Cultivating trust and empowering communities through meaningful initiatives enable us to create long-lasting positive impacts to the well-being of the communities in which we operate. Our commitment to meeting the various communities' needs is a clear reflection of our take on social development and contribution to the sustainability of our communities. It is our corporate responsibility to give back to society while building trust and ensuring that our community thrive amid these challenging times.

We are aware that our social impact programmes must start with the right intention through strategic collaborations and partnerships to create value for all stakeholders. As such, our programmes also aim to constantly communicate the positive impacts of our key sustainability projects, such as the New Plastics Economy (NPE).¹

¹ For more information about the New Plastics Economy, please refer to page 52-55 of this Report.



SOCIAL: Empowering People & Communities

OUR APPROACH

At PCG, our Social Impact programmes are strategically planned and implemented to align with and support our Sustainability Agenda. Our community engagements are anchored on Environment, Education and Community Well-being and Development pillars, which are also the three focus areas of the PETRONAS Social Impact Management Framework. To materialise our community programmes, we leverage collaborations and partnerships with various non-governmental organisations and local government agencies to carry out impactful long-term initiatives. Our employees are encouraged to volunteer in Social Impact programmes.

PCG SOCIAL IMPACT STRATEGY

PILLARS	ENVIRONMENT	EDUCATION	COMMUNITY WELL-BEING AND DEVELOPMENT
OBJECTIVES	Better the environment through conservation, rehabilitation and preservation by increasing awareness and implementing educational and recycling programmes under the ecoCare and Tanjung Surat mangrove and biodiversity conservation effort, as well as Be Green.	Elevate and inculcate responsible waste management and sustainability in support of the circular economy through Plastic, Sustainability & You Education (PSYE). We also educate on conservation and rehabilitation of mangrove.	Support community well-being in our areas of operation through community initiatives, and health and safety improvements through community relief programme and Safe Handling of Chemicals for School (SHOC4School).

In 2022, our Social Impact programmes benefitted more than 300,000 community members across various operation areas.

With the transition to the endemic phase, we began to reach out physically to schools and communities, improving the delivery of our programmes and contributions.



COMMUNITY ENGAGEMENT

OUR VALUE CREATION

Environment

- Be Green:**
 Implemented to complement and raise awareness of the PSYE programme. Recycling campaign were held at selected schools and the local communities in which we operate to ingrain the practice of Reduce, Reuse and Recycle. This programme is also in support of PCG's overall business objectives and NPE agenda in instilling proper waste management
- ecoCare:**
 Increased the total number of mangrove trees and seedlings planted through the ecoCare planting and education programmes, which promote biodiversity preservation and conservation. This is to ensure that the environment is carefully preserved and to impart values of volunteerism in conserving nature

Education

- Plastic, Sustainability & You Education (PSYE) Programme:**
 Lives touched to over 200,000 students, teachers and community members in physical programmes to support the NPE and educate the audience on sustainability, responsible waste management and the importance of a circular economy







Community Well-being & Development

- Safety Programme (SHOC4School):**
 Aimed to increase the knowledge in handling chemicals and first aid skills. Other than sharing information on lab safety and basic first aid training, we also contributed safety goggles, eye wash, first aid kits and chemical spill kits to school labs
- Community Relief Programme:**
 A community relief drive to support and ease the burden of low-income groups. This year, the drive was held in six PCG operational areas with 1,450 families as beneficiaries
- SEEd.Lab:**
 An end-to-end incubator programme powered by PETRONAS and Tata Consultancy Services (TCS), PCG has contributed towards creating positive impacts on more than 13,000 lives through eight social enterprises, since its establishment in January 2020. The first of its kind in comprehensiveness in Malaysia, SEEd.Lab tackles social pain points by building self-sustaining social enterprises that forge solutions for specific beneficiaries within communities. Beyond monetary contributions, PCG helped SEEd.Lab's social enterprises by offering business and leadership mentorship





COMMUNITY ENGAGEMENT

OUR ACHIEVEMENTS	
<p>Community engagement activities at</p> <h1>100%</h1> <p>of the locations where PCG operates in</p> 	<p>Planted</p> <h1>3,550</h1>  <p>mangrove trees in collaboration with Sahabat Bakau and Malaysian Nature Society</p>
<p>Collected total recyclable wastes of</p> <p>more than</p> <h1>63,000</h1> <p>kg</p> 	<p>Reached over</p>  <h1>300,000</h1> <p>people</p>
<h1>1,683</h1> <p>hours</p> <p>volunteered by PCG employees in various Social Impact programmes</p> 	<p>Completed biodiversity monitoring activities and baseline report on IUCN species found, which identified:</p>  <ul style="list-style-type: none"> - Two critically endangered (CR), two endangered (EN), six vulnerable (VU) and two near-threatened (NT) species - 22 newly found bird species in our 2022 birds monitoring activities at impact area

INTERNATIONAL UNION FOR CONSERVATION OF NATURE (IUCN) SPECIES IDENTIFIED

No.	Species	Category in IUCN
1.	Painted terrapin	CR
2.	Sunda pangolin	CR
3.	Dusky leaf monkey	EN
4.	Malayan tapir	EN
5.	Crab-eating macaque	VU
6.	Southern pig-tailed macaque	VU
7.	Smooth-coated otter	VU
8.	Asian small-clawed otter	VU
9.	Sun bear	VU
10.	Deer	VU
11.	Mangrove pitta	NT
12.	White-chested babbler	NT

CORPORATE GOVERNANCE



WHY IT MATTERS

Strong corporate governance is a critical component of an organisation's business as it safeguards the interests of stakeholders and ensures the long-term sustainability of the organisation. PCG is committed to upholding an effective system of governance, integrity and compliance guided by best practices. Our ability to not only build but maintain our credibility among stakeholders will foster greater trust and give us better insights into managing both the risks and opportunities present in the business.

We acknowledge that the disclosures we make must be timely and transparent. We also recognise that any breaches in corporate governance could result in bad reputation, regulatory penalties or even the failure of the business in its entirety.

OUR APPROACH

From a broader governance perspective, PCG adheres to the Main Market Listing Requirements, Malaysian Code of Corporate Governance and relevant guidelines in the other countries we operate in. Internally, we adhere to the PETRONAS Integrity Compliance Framework and PETRONAS Code of Conduct and Business Ethics (CoBE). The Board of Directors also plays an integral role in setting the tone and the right priorities to encourage an ethical and transparent corporate culture.

OUR VALUE CREATION

Corporate Governance Framework

- Enhanced our sustainability governance framework to support long-term value creation, which includes strategies on economic, environmental, social, and governance (EESG) considerations to strengthen the integration of sustainability in PCG's operations
- Identified sustainable practices for PCG to become more resilient and to create durable and sustainable value while maintaining the confidence of its stakeholders
- Enhanced sustainability governance structure: the Board Risk Committee is now the Board Sustainability and Risk Committee (BSRC) and Risk Management Committee is the Sustainability and Risk Management Committee (SRMC), with the inclusion of sustainability oversight¹

Board Diversity & Competency

- Appointed Datin Seri Sunita Mei-Lin Rajakumar to the Board of Directors, putting us in compliance with Practice 5.2 of the MCCG, which calls for the Board composition to have a majority of Independent Directors. The appointment also allows us to comply with Practice 5.9, which calls for the Board diversity to include at least 30% women directors, and reflects PCG's support for the country's aspiration of having 30% female representation at the Directors' level. Additionally, it demonstrates our commitment to having a diverse pool of talent, expertise and knowledge to strengthen the current membership
- Ensured an appropriate mix of diversity, skills and experience for the Board to discharge its responsibilities effectively. The Board comprises nine highly dedicated individuals from various nationalities, with various backgrounds and expertise with notable careers in their respective fields

Commitment to Integrity

- Integrity Focal Person (IFP) appointment
 - IFP roles and responsibilities focuses on integrity strengthening and governance at PCG
- It is aligned with the roles of PETRONAS Group Integrity for an integrated reporting to MACC based on the four core functions:
 - Complaint management
 - Integrity strengthening
 - Detection and verification
 - Governance

Policies & Guidelines

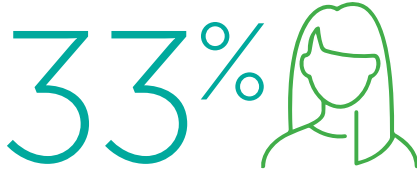
- Continued to implement the following stringent policies and guidelines to uphold integrity and ethical practices:
 - PETRONAS Code of Conduct and Business Ethics (CoBE): Provides policy statements on the standards of behaviour and ethical conduct expected of employees of the Group and others performing work or services for or on behalf of the Group
 - Anti-Bribery and Corruption Policy: Deals with improper solicitation, bribery and other corrupt activities that may arise in business
 - PETRONAS Whistleblowing Policy: Offers an avenue for employees and other stakeholders to safely report misconduct within the Group
 - Insider Trading: Prohibits the Board and Principal Officers from trading securities based on knowledge acquired from their positions. Directors and Principal Officers are also reminded not to deal in the company's shares when possessing price-sensitive information relating to the Group
 - PETRONAS Tenders & Contracts Administrative Manual: Conducts an independent review on evaluating bidders' proposals to ensure tendering activities are carried out based on technically acceptable and commercially attractive bids
 - Corporate Disclosure Guide: Describes the disclosures and conduct on the dissemination of information. The guidelines are based on the Bursa Malaysia's Main Market Listing Requirements (MMLR), promoting transparency and accountability in communicating and disseminating material information to the public

¹ For more information on governance oversight of sustainability and climate-related matters, please refer to https://www.petronas.com/pcg/sites/default/files/2023-02/PCG%20TCFD%20Report%202022_Website.pdf



CORPORATE GOVERNANCE

OUR ACHIEVEMENTS



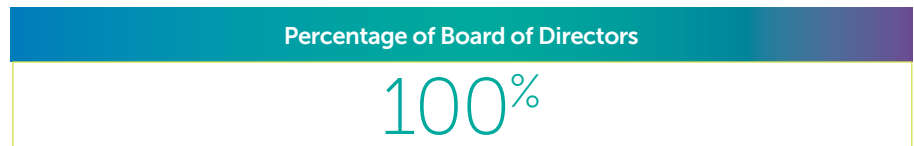
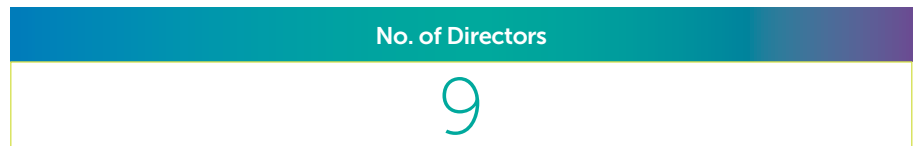
female representation on the Board

100% compliance in the following 5 Critical Legal Areas that pose significant legal, financial and reputational risks to PCG:

- Anti-Bribery and Corruption
- Third Party Risk Management (TPRM)
- PETRONAS Personal Data Protection and Privacy Compliance
- Sanctions
- Competition Law

ANTI-CORRUPTION:

Number of Directors and percentage of the Board of Directors who received training on anti-corruption and briefed on PETRONAS Anti-Bribery and Corruption Policy & Guidelines (ABC Manual) and procedures:



- | Methods of Communication |
|--|
| <ul style="list-style-type: none"> • Briefing of 5 Critical Legal Areas to newly appointed Directors during onboarding session • Publishing of ABC Manual in PCG’s corporate website |

- | Initiatives or programmes implemented for anti-corruption training |
|---|
| <ul style="list-style-type: none"> • Training attended by Directors on the Malaysian Anti-Corruption Act (MACC) Act in 2020 and 2021 • Newly appointed directors have been briefed on Corporate Liability Section 17A of the MACC • Completion of 5 Critical Legal Areas e-learning module |

Percentage of employees who received training on PCG’s Anti-Bribery and Corruption Policy and procedures:

BY EMPLOYEE CATEGORY	
Employee Category	Percentage of Employees
Management Committee	100%
Senior Management	94.4%
First-level Management	99.8%
Non-Management	98.6%



INDEPENDENT LIMITED ASSURANCE REPORT

TO THE MEMBERS OF PETRONAS CHEMICALS GROUP BERHAD

REGISTRATION NO: 199801003704 (459830-K)
(INCORPORATED IN MALAYSIA)

Independent Limited Assurance Report to PETRONAS Chemicals Group Berhad ("PCG") and its subsidiaries (the "Group") on Selected Non-Financial Indicators depicted under the Material Matters as published in PCG's Integrated Annual Report for the financial year ended 31 December 2022

We, KPMG PLT ("KPMG"), were engaged by PCG to provide limited assurance on Selected Non-Financial Indicators depicted under the Material Matters (the "Subject Matter"), as published in PCG's Integrated Report for the financial year ended 31 December 2022 (the "Integrated Report"), in the form of an independent limited assurance conclusion as to whether the Subject Matter is in all material respects in accordance with the International Framework (<IR>), as well as the Group's definition and calculation methodologies which are disclosed in the Integrated Report including any significant inherent limitations, the ("Applicable Criteria").

Subject Matter

The Selected Non-Financial Indicators depicted under the Material Matters covered by our limited assurance engagement are:

- (i) Effluent Pollution Loading - Chemical Oxygen Demand ("COD");
- (ii) Scope 1 Greenhouse Gas ("GHG") Emissions;
- (iii) Scope 2 GHG Emissions;
- (iv) Lost Time Injury Frequency (LTIF);
- (v) Recordable Occupational Illness Frequency ("TROIF");
- (vi) Total Non-Renewable Energy Consumption;
- (vii) Total Municipal Water Supplies (or from other water utilities);
- (viii) Total Weight of Nitrogen Oxides (NOx) and Sulfur Oxides (SOx) Emissions from Selected Operating Sites; and
- (ix) Tier 1 Process Safety Event ("T-1 PSE").

The boundary of the limited assurance engagement by KPMG represents the Group's operations at the Group level (located at PCG's headquarters at PETRONAS Twin Tower 1, Kuala Lumpur City Centre) and two (2) of its wholly owned subsidiaries being PETRONAS Chemicals Fertiliser Kedah Sdn Bhd located at Gurun, Kedah and PETRONAS Chemicals Fertiliser Sabah Sdn Bhd located at Sipitang, Sabah (collectively known as the operating units or OPUs) for the site level data testing, and the remaining to PCG's wholly-owned subsidiaries or OPUs for the group level consolidated data testing.

Board of Directors and Management's Responsibilities

The Board of Directors of PCG (the "Directors") and the management of PCG (the "Management") are responsible for the preparation and presentation of the Subject Matter in accordance with the Applicable Criteria, and the information and assertions contained within it; for determining the objectives in respect of sustainable development performance and reporting, including the identification of stakeholders and material issues; and for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived.

The Directors and the Management are responsible for the prevention and detection of fraud and error mainly through the implementation and continued operation of an adequate system of internal control.

The Directors and the Management are also responsible for ensuring that staff involved with the preparation and presentation of the description of the Subject Matter and the Integrated Report are properly trained, ensuring that information systems are properly updated and that any changes in reporting encompass all significant business units.

The Directors and the Management responsible for disclosing to us their knowledge of: (i) known, actual or possible non-compliance with laws or regulations that have or may have a material effect on the Subject Matter and the Integrated Report; and (ii) allegations of or suspected fraud or dishonesty committed against the Group.

The Directors and the Management are responsible to make available to us the Subject Matter and the Integrated Report and any other information timely to facilitate the completion of the engagement within the required time frame.

The Directors and the Management are responsible for disclosing to us facts that may affect the Subject Matter and the Integrated Report, of which they may become aware during the period from the date of the independent limited assurance report to the date the Subject Matter and the Integrated Report are issued.

Our Responsibilities

Our responsibility is to carry out a limited assurance engagement and to express a conclusion based on the work performed and evidence obtained.

We conducted our engagement in accordance with Malaysian Approved Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information and Malaysian Approved Standard (ISAE) 3410, Assurance Engagements on Greenhouse Gas Statements. These standards requires that we plan and perform procedures to obtain limited assurance that nothing has come to our attention that causes us to believe that the Subject Matter, in all material respects, is not prepared in accordance with the Applicable Criteria.

INDEPENDENT LIMITED ASSURANCE REPORT

Procedures Performed

Our limited assurance engagement on the Subject Matter consists of making enquiries, primarily of persons responsible for the preparation of the Subject Matter presented in the Integrated Report, and applying analytical and other evidence gathering procedures, as appropriate. These procedures included:

- Enquiries of management to gain an understanding of the processes for determining material issues for key stakeholder groups;
- Interviews with senior management and relevant staff at group level and selected business unit level concerning sustainability strategy and policies for material issues, and the implementation of these across the business;
- Interviews with relevant staff at the corporate and business unit level responsible for providing the Subject Matter in the Integrated Report;
- Interviews with sites, selected on the basis of a risk analysis including the consideration of both quantitative and qualitative criteria;
- Identify the risks of material misstatement of the Subject Matter and the Integrated Report, whether due to fraud or error, design and perform limited assurance procedures to address those risks and obtain limited assurance evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtain an understanding of internal control relevant to the engagement in order to design procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
- Compare the Subject Matter presented in the Integrated Report to corresponding information in the relevant underlying sources on a sample basis to determine whether all the relevant information has been appropriately included in the Report;
- Evaluate the Subject Matter presented in the Integrated Report to determine whether they are in line with our overall knowledge of, and experience with, the sustainability performance of the Group;
- Evaluate the remainder of the Integrated Report to determine whether there are any material misstatements of fact or material inconsistencies based on our understanding obtained as part of our assurance engagement.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our Quality Management and Independence

Our firm applies Malaysian Approved Standard on Quality Management, ISQM 1, Quality Management for Firms that Perform Audits and Reviews of Financial Statements, or Other Assurance or Related Services Engagements, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have complied with the independence and other ethical requirements of the By-Laws (on Professional Ethics, Conduct and Practice) of the Malaysian Institute of Accountants, which is founded

on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Inherent Limitations

Due to the inherent limitations of any internal control structure, it is possible that errors or irregularities in the information presented in the Integrated Report may occur and not be detected. Our engagement is not designed to detect all weaknesses in the internal controls over the preparation and presentation of the Integrated Report, as the engagement has not been performed continuously throughout the period and the procedures performed were undertaken on a test basis.

Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Based on the limited assurance procedures performed and evidence obtained as described above, nothing has come to our attention that would lead us to believe that the Subject Matter included in PCG's Integrated Report for the financial year ended 31 December 2022, in all material respects, is not prepared in accordance with the Applicable Criteria.

Purpose of our report

In accordance with the terms of our engagement, this report on the Subject Matter has been prepared for PCG and for no other purpose or in any other context.

Restriction of use

Our report should also not be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than PCG, for any purpose or in any other context. Any party other than PCG who obtains access to our report or a copy thereof and chooses to rely on our report (or any part thereof) will do so at its own risk. To the fullest extent permitted by law, we do not accept nor assume responsibility and deny any liability to any party other than PCG for our work, for this report, or for the conclusion we have reached.

Our report is released to PCG on the basis that it shall not be copied, referred to or disclosed, in whole (save for PCG's own internal purposes) or in part, without our prior written consent.



KPMG PLT
(LLP0010081-LCA & AF 0758)
Chartered Accountants
Petaling Jaya
Date: 2 March 2023



APPENDIX

BOARD MEMBERS DIVERSITY

GENDER	2020	2021	2022
Male (%)	75	78	67
Female (%)	25	22	33

AGE GROUP	2020	2021	2022
50-59 years (%)	63	56	56
>60 years (%)	37	44	44

EMPLOYEE DATA

NUMBER OF EMPLOYEES	2020	2021	2022
Total number of employees	4,714	4,585	6,288

EMPLOYEES BY AGE GROUP	2020	2021	2022
<30 years (%)	17.6	9.6	10.1
30-50 years (%)	72.5	79.9	78.4
>50 years (%)	9.9	10.6	11.5

EMPLOYEES ATTRITION AND TURNOVER	2020	2021	2022
Employee attrition rate (%)	3.0	5.9	3.7
Employee turnover rate (%)	0.8	1.9	3.0

EMPLOYEE NEW HIRE RATES BY GENDER	2020	2021	2022
Female (%)	25.0	20.0	24.5
Male (%)	75.0	80.0	75.5

EMPLOYEE NEW HIRE RATES BY AGE GROUP	No. of New Hires	Rate (%)
<30 years	172	59.3
30 - 50 years	99	34.1
>50 years	19	6.6

EMPLOYEES GENDER DIVERSITY		2020	2021	2022
Distribution of workforce by gender (%)	Male	82.8	82.7	78.4
	Female	17.2	17.3	21.6
Management Committee (%)	Male	63.6	74.5	63.6
	Female	36.4	25.5	36.4
Senior Management (%)	Male	76.0	81.8	77.1
	Female	24.0	18.2	22.9
First Level Management (%)	Male	75.4	67.2	74.4
	Female	24.6	32.8	25.6
Non Management (%)	Male	83.0	85.7	84.3
	Female	17.0	14.3	15.7

* Note: Data for Age, Turnover, New Hire and Gender Diversity (for First Level Management and Non-Management) does not include Perstorp Group.

APPENDIX

PARENTAL LEAVE FOR 2022	Men	Women
No. of employees who took parental leave	363	58
No. of employees who returned to work after parental leave ended	363	58
No. of employees who returned to work after parental leave ended and were still employed 12 months after their return to work	363	58
Return to work rate (%)	100	100

* Note: Reflected data does not include Perstorp Group.

EMPLOYEE TRAINING DATA

TRAINING TYPE	INSTRUCTOR-LED/ PHYSICAL SESSION	ONLINE COURSE	OTHERS (MATERIAL, CURRICULUM, EXTERNAL TRAINING, TEST, VIDEO, COHORT, EXTERNAL CONTENT, NOTES)	TOTAL
Training Man-hours	191,465	35,572	37,627	264,664
	72.4%	13.4%	14.2%	100%

BY GENDER	Male	Female	Total
Total No. of Employees	3,640	693	4,333
Total No. of Training Hours	234,852	29,812	264,664
Average Training Hours Per Employee	64.5	43.0	61.1

BY EMPLOYEE CATEGORY	Total Training hours	Average Training hours
Management Committee	169.3	16.9
Senior Management	562.5	15.6
First-level Management	25,496.3	40.1
Non-Management	238,435.9	65.3
Total	264,664	61.1

* Note: Reflected data does not include BRB Group and Perstorp Group.



GLOSSARY OF TERMS, ABBREVIATIONS AND ACRONYMS

ABBREVIATION	FULL TERM/DEFINITION
AA	Advanced Analytics
ABC Manual	Anti-Bribery and Corruption Policy and Guidelines
ABR	Accountability Behaviour Reinforcement
ACT	Assessment, Coaching and Training
APC	Advanced Process Control
APM	Asset Performance Management
ASNO	Australian Safeguards and Non-Proliferation Office
AWQMS	Automated Water Quality Monitoring System
BCM	Business Continuity Assessment
BES	Biodiversity & Ecosystem Service
Bio-MEG	Bio-Monoethylene Glycol
BSRC	Board Sustainability and Risk Committee
C&C	Caps & closures
CA 2016	Companies Act 2016
CDD	China Domestic Delivery
CDP	Carbon Disclosure Project
CEMS	Continuous Emission Monitoring System
CICM	Chemical Industries Council of Malaysia
CoBE	Code of Conduct and Business Ethics
CoCHR	Contractors Code of Conduct on Human Rights
COD	Chemical Oxygen Demand
CR	Critically Endangered
CRP	Corporate Risk Profile
CSBIA	Cybersecurity Business Impact Assessment
CSBIA-LRA	Cybersecurity Business Impact Assessment and Legal & Regulatory Assessment
CSBRA	Cybersecurity Business Risk Assessment
CSS	Customer Satisfaction Survey
CSSDP	Cybersecurity Strategy Deployment Programme
CWW	Compressed Work Week
D&I	Diversity & Inclusion
DJSI	Dow Jones Sustainability Indices
DOE	Department of Environment
EAP	Employee Assistance Programme
ECSGF	Enterprise Cybersecurity Governance Framework
EES	Economic, Environmental and Social
EESG	Economic, Environmental, Social and Governance
EN	Endangered
EPM	Employee Performance Management
ESG	Environmental, Social and Governance
EVP	Employee Value Proposition

ABBREVIATION	FULL TERM/DEFINITION
FAE	Fatty Alcohol Ethoxylate
FIAM	Fertilizer Industry Association of Malaysia
FMM	Federation of Malaysian Manufacturers
FR	Financial Report
FR _{ESH}	Fatigue Remedy & Sleep Hygiene
FTSE4Good	Index Series designed to measure the performance of companies demonstrating strong ESG practices
FWH	Flexible Working Hours
GHG	Greenhouse Gas
GHS	Globally Harmonized System
GPSS	Global Product Strategy Safety
GRI	Global Reporting Initiative
HMM	Harvard Manage Mentor
HMMS	Harvard Manage Mentor Sparks
HSE	Health, Safety and Environment
ICCA	International Council of Chemical Associations
IFA	International Fertilizer Association
IFRS	International Financial Reporting Standards
ILT	Instructor Led Trainings
IMS	Incident Management System
IP	Intellectual Property
IPCC	Intergovernmental Panel on Climate Change
IPIECA	International Petroleum Industry Environmental Conservation Association
IR	Integrated Report
IRF	Integrated Reporting Framework
IUCN	International Union for Conservation of Nature
JVs	Joint ventures
KIPC	Kertih Integrated Petrochemical Complex
KPDNHEP	Ministry of Domestic Trade and Consumer Affairs
KPIs	Key Performance Indicators
KSRP	Kelab Sukan dan Rekreasi PETRONAS
LCA	Life Cycle Analysis
LDA	Leadership Development in Action
LDAR	Leak Detection and Repair programme
LEFW	Leaving Earlier from Work
LOPC	Loss of Primary Containment
LRO	Leaders' Reach Out
LSA	Long Service Award
LTIF	Lost Time Injury Frequency
LWP	Leave Without Pay
MACC	Malaysian Anti-Corruption Act

GLOSSARY OF TERMS, ABBREVIATIONS AND ACRONYMS

ABBREVIATION	FULL TERM/DEFINITION
MAH	Major Accidents Hazard
MCCG	Malaysian Code on Corporate Governance
MCF	Mandatory Control Framework
MD/CEO	Managing Director/Chief Executive Officer
MFRS	Malaysian Financial Reporting Standards
MI	Methanol Institute
MITI	Ministry of International Trade and Industry
MMLR	Main Market Listing Requirements
MNS	Malaysian Nature Society
MOC	Management of Change
MPA	Malaysian Petrochemicals Association
MPMA	Malaysian Plastics Manufacturers Association
NACWC	National Authority of the Chemical Weapons Convention
NO _x	Nitrogen Oxides
NPE	New Plastics Economy
NPK	Nitrogen, Phosphorus and Potassium
NRECC	Ministry of Natural Resources, Environment and Climate Change
NT	near-threatened
NZCE	Net Zero Carbon Emissions
OCS	Operation Clean Sweep
OE R2	Operational Excellence Result 2
OFR	Order Fulfilment Reliability
OFWP	Operate Facility Work Process
OJT	On-Job Training
OP	Operating Procedure
OPCW	Organisation for Prohibition of Chemical Weapons
OPUs	Operating Units
OSH	Occupational Safety & Health
PACE4M	PCG Acceleration and Enrichment Programme for Managers
PCB	PETRONAS Cultural Belief
PCG	PETRONAS Chemicals Group Berhad
PEMS	Predictive Emission Monitoring System
PIVOT	PETRONAS Integrated Vision for Operational Excellence Transformation
POINT	Plant Operations Integrated Tools
POP	Persistent Organic Pollutants
PPRT	Pandemic Preparedness Response Team
PSYE	Plastic, Sustainability & You Education
PTCAM	PETRONAS Tender and Contracts Administrative Manual

ABBREVIATION	FULL TERM/DEFINITION
PTS	PETRONAS Technical Standard
R&D	Research and Development
R&T	Research & Technology
RAWMIR	Raw Material Information System
RSPO	Roundtable on Sustainable Oil
RTO	Real time optimizer
RTOG	Road Transport Operational Guideline
SASB	Sustainability Accounting Standards Board
SCE	Safety Critical Equipment
SD	Sustainability Development
SDS	Safety Data Sheets
SDSC	Sustainable Development Steering Committee
SDWC	Sustainable Development Working Committee
SHOC4School	Safe Handling of Chemicals for School
SMA	Superior Managed Assessment
SO _x	Sulfur Oxides
SR	Sustainability Report
SRA	Social Risk Assessment
SWCBM	Safe Work Control & Barrier Management
TA	Turnaround
TCFD	Task Force on Climate-Related Financial Disclosures
TCS	Tata Consultancy Services
TPRM	Third Party Risk Management
TROIF	Total Recordable Occupational Illness Frequency
UAUC	Unsafe Act, Unsafe Condition
UNSDGs	The United Nations Sustainable Development Goals
VDP	Vendor Development Programme
VRF	Value Reporting Foundation
VU	Vulnerable
WAPS	Water Practices
WFH	Work From Home




GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX

GRI UNIVERSAL STANDARD

Statement of Use	PETRONAS Chemicals Group Berhad has reported the information cited in this GRI content index for the period 1 January to 31 December 2022 with reference to the GRI Standards.
GRI 1 Used	GRI 1: Foundation 2021

GRI DISCLOSURE	GRI DISCLOSURE DESCRIPTION	PAGE NUMBER	REMARKS/ OMISSIONS
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GRI 2: General Disclosures 2021			
The organisation and its reporting practices			
2-1	Organisational details	8-9	
2-2	Entities included in the organisation's sustainability reporting	2-3 & 8-9	
2-3	Reporting period, frequency and contact point	2-3	
2-4	Restatements of information	30, 41, 47	
2-5	External assurance	86-87	
ACTIVITIES AND WORKERS			
2-6	Activities, value chain and other business relationships	8-9	
2-7	Employees	88-89	
2-9	Governance structure and composition	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-10	Nomination and selection of the highest governance body	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-11	Chair of the highest governance body	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-12	Role of the highest governance body in overseeing the management of impacts	24-25	Refer also to PCG's TCFD Report at 
2-13	Delegation of responsibility for managing impacts	24-25	
2-14	Role of the highest governance in sustainability reporting	2-3 & 24-25	
2-15	Conflicts of interest	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.

GLOBAL REPORTING INITIATIVE (GRI) **CONTENT INDEX**





GRI DISCLOSURE	GRI DISCLOSURE DESCRIPTION	PAGE NUMBER	REMARKS/ OMISSIONS
2-16	Communication of critical concerns	28, 84	"PETRONAS Whistleblowing Policy provides an avenue for stakeholders to disclose any improper conduct in accordance with the procedures, ensuring whistleblowers are protected from any retaliation."
2-17	Collective knowledge of the highest governance body	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-18	Evaluation of the performance of the highest governance body	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-19	Remuneration policies	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-20	Process to determine remuneration	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-21	Annual total compensation ratio	-	Refer to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
STRATEGY, POLICIES AND PRACTICES			
2-22	Statement on sustainable development strategy	4-7	
2-23	Policy commitments	27-28	
2-24	Embedding policy commitments	26-28	Refer also to Corporate Governance Overview Statement in PCG's Integrated Report 2022.
2-25	Processes to remediate negative impacts	20-23, 27-28, 33, 72-74, 84	PCG is guided by its robust policies and guidelines to ensure that all its operations, products and services adhere to all the relevant laws and regulations. PCG also constantly engages with its stakeholders to identify and meet their needs, and has put in place a grievance mechanism for supplier, vendors and the local community, as well as a global emergency hotline network for its customers and stakeholders. In addition, it has an Unsafe Act, Unsafe Condition (UCA) initiative for workers to raise concerns about unsafe acts and condition.



GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX

GRI DISCLOSURE	GRI DISCLOSURE DESCRIPTION	PAGE NUMBER	REMARKS/ OMISSIONS
2-26	Mechanisms for seeking advice and raising concerns	28, 84	PETRONAS Whistleblowing Policy provides an avenue for stakeholders to disclose any improper conduct in accordance with the procedures, ensuring whistleblowers are protected from any retaliation.
2-27	Compliance with laws and regulations	59, 67	There were zero non-compliance of threshold above USD100,000 with regards to social and environmental policies, rules and regulations.
2-28	Membership associations	29	
STAKEHOLDER ENGAGEMENT			
2-29	Approach to stakeholder engagement	20-23	
2-30	Collective bargaining agreements	63-65, 67	
GRI 3: Material Topics 2021			
3-1	Process to determine material topics	12-13	
3-2	List of material topics	12-19	
Standard Disclosures			
ECONOMIC: Catalysing Economic Performance			
MATERIAL MATTER: INNOVATION & PRODUCT STEWARDSHIP			
3-3	Management approach	33	
GRI 417: Marketing and labelling			
417-1	Requirements for product and service information and labelling	33-36	
MATERIAL MATTER: SUPPLY CHAIN MANAGEMENT			
3-3	Management approach	39	
GRI 204: Procurement Practices 2016			
204-1	Proportion of spending on local suppliers	41	
308: Supplier Environmental Assessment 2016			
308-1	New suppliers that were screened using environmental criteria	40	
308-2	Negative environmental impacts in the supply chain and action taken	-	There were zero negative environmental impacts identified in the supply chain in 2022.
GRI 414: Supplier Social Assessment 2016			
414-2	Negative social impacts in the supply chain and actions taken	-	There were zero negative environmental impacts identified in the supply chain in 2022.
MATERIAL MATTER: CYBERSECURITY & DIGITALISATION			
3-3	Management approach	43	
GRI 418: Customer Privacy 2016			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	45	

GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX

GRI DISCLOSURE	GRI DISCLOSURE DESCRIPTION	PAGE NUMBER	REMARKS/ OMISSIONS
MATERIAL MATTER: STRATEGY PURPOSE & FINANCIAL RESILIENCE			
3-3	Management approach	47	
GRI 201: Economic Performance 2016			
201-1	Direct economic value generated and distributed	47	
MATERIAL MATTER: PLANT OPERATIONS			
3-3	Management approach	-	This material matter is reported across PCG's Annual Integrated Report 2022.
ENVIRONMENTAL: Contributing to the Green Agenda			
MATERIAL MATTER: CLIMATE CHANGE			
3-3	Management approach	49-50	
GRI 201: Economic Performance 2016			
201-2	Financial implications and other risks and opportunities due to climate change	50	Refer also to PCG's standalone Task Force on Climate-Related Financial Disclosures (TCFD) report at 
GRI 302: Energy 2016			
302-1	Energy consumption within the organisation	30	Energy consumption data is reported in PCG's TCFD Report at 
302-2	Energy consumption outside the organisation	-	
302-3	Energy Intensity	30, 51	
302-4	Reduction of energy consumption	-	
GRI 305: Emissions 2016			
305-1	Direct (Scope 1) GHG emissions	51	Refer also to PCG's TCFD Report at 
305-2	Energy indirect (Scope 2) GHG emissions	51	
305-3	Other indirect (Scope 3) GHG emissions	-	Refer also to PCG's TCFD Report at 



GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX

GRI DISCLOSURE	GRI DISCLOSURE DESCRIPTION	PAGE NUMBER	REMARKS/ OMISSIONS
305-4	GHG Emissions Intensity	51	
305-5	Reduction of GHG emissions	51	
MATERIAL MATTER: ENVIRONMENTAL STEWARDSHIP			
3-3	Management approach	57	
GRI 303: Water and Effluents 2018			
303-1	Interactions with water as a shared resources	57	
303-2	Management of water discharge-related impacts	57-58	
303-3	Water withdrawal	59	
303-4	Water discharge	59	
GRI 306: Waste 2020			
306-1	Waste generation and significant waste-related impacts	57-58	
306-2	Management of significant waste-related impacts	57-58	
306-3	Waste generated	59	
MATERIAL MATTER: NEW PLASTIC ECONOMY			
3-3	Management approach	53	
SOCIAL: Empowering People & Communities			
MATERIAL MATTER: HUMAN RIGHTS			
3-3	Management approach	63	
GRI 401: Employment 2016			
401-1	New employee hires and employee turnover	88-89	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	64-65	
401-3	Parental Leave	89	
GRI 405: Diversity and Equal Opportunity 2016			
405-1	Diversity of governance bodies and employees	88	
GRI 406: Non-Discrimination 2016			
406-1	Incidents of discrimination and corrective actions taken	67	

GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX

GRI DISCLOSURE	GRI DISCLOSURE DESCRIPTION	PAGE NUMBER	REMARKS/ OMISSIONS
GRI 407: Freedom of Association and Collective Bargaining 2016			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	39-40, 63, 67	There were no operations and suppliers in which the right to freedom of association and collective bargaining may be risk. PCG's suppliers and vendors are required to adhere to the PETRONAS Contractors Code of Conduct on Human Rights (CoCHR) and HSE requirements, which are aligned with the eight International Labour Organization (ILO) core conventions as set out in the Declaration on Fundamental Principles and Rights at Work. Refer also to Supply Chain Management from pages 38-41 in this Report.
GRI 408: Child Labour 2016			
408-1	Operations and suppliers at significant risk for incidents of child labour	67	Refer also to Supply Chain Management from pages 38-41 in this Report.
GRI 409: Forced or Compulsory Labour 2016			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	67	Refer also to Supply Chain Management from pages 38-41 in this Report.
GRI 411: Rights of Indigenous People 2016			
411-1	Incidents of violations involving rights of indigenous people	67	
MATERIAL MATTER: WORKPLACE AND OCCUPATIONAL SAFETY & HEALTH			
3-3	Management approach	69-70	
GRI 403: Occupational Health and Safety 2018			
403-1	Occupational health and safety management safety	69-70	
403-2	Hazard identification, risk assessment and incident investigation	72	
403-3	Occupational health services	71-72	
403-4	Worker participation, consultation and communication on occupational health and safety	71-72	
403-5	Worker training on occupational health and safety	72	
403-6	Promotion of worker health	65, 72	PCG also has MIND-A-CARE and Employee Assistance Programme to focus on employees' mental health. Refer to Human Rights on page 65 in this Report.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	70-72	



GLOBAL REPORTING INITIATIVE (GRI) CONTENT INDEX

GRI DISCLOSURE	GRI DISCLOSURE DESCRIPTION	PAGE NUMBER	REMARKS/ OMISSIONS
403-8	Workers covered by an occupational health and safety management system	71-74	
403-9	Work-related injuries	73	
403-10	Work-related ill health	73	
MATERIAL MATTER: TALENT DEVELOPMENT			
3-3	Management approach	75	
GRI 404: Training and Education 2016			
404-1	Average hours of training per year per employee	89	
404-2	Programmes for upgrading employee skills and transition assistance programmes	76-78	
404-3	Percentage of employees receiving regular performance and career development reviews	77	
MATERIAL MATTER: COMMUNITY ENGAGEMENT			
3-3	Management approach	80	
GRI 203: Indirect Economic Impacts 2016			
203-1	Infrastructure investments and services supported	80	
203-2	Significant indirect economic impacts	54-55	
GRI 304: Biodiversity 2016			
304-2	Significant impacts of activities, products and services on biodiversity	57-58, 81-82	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	82	
GRI 413: Local Communities 2016			
413-1	Operations with local community engagement, impact assessments and development programmes	64, 81-82	
GOVERNANCE: Strengthening Ethics & Integrity			
MATERIAL MATTER: CORPORATE GOVERNANCE			
3-3	Management approach	84	
GRI 205: Anti-Corruption 2016			
205-2	Communication and training about anti-corruption policies and procedures	85	

PCG's Sustainability Report 2022 has been produced in line with our theme: **Transcending. Next Level.** We considered the environmental impact of each decision made in the publication of this report. From the materials used and acquired to the design concept and production - everything is intentional.



OPTIMAL PRODUCTION

- The production and printing of all reports followed the FSC® certified chain of custody
- The Governance section into the Integrated Report to reduce the usage of four-colour print for the Financial Report
- The cover is printed on FSC® certified Artizen Natural White 320 gsm paper, while inside pages are printed on FSC® certified Artizen Natural White 130 gsm paper
- A soy-based ink was used for a more sustainable approach



MINIMALIST PRESENTATION

The entirety of the report is presented in a straightforward and structured package, with simple design elements.



SIMPLICITY IN DESIGN

Replacing full-scale photographic images with other graphic representations such as graphs, charts and diagrams.



PRINTED SUSTAINABLY

The full report was produced using carbon-neutral press machines and eco-friendly materials certified with an ISO 14001 environmental management system in line with minimising environmental impact.



CONCISE LANGUAGE

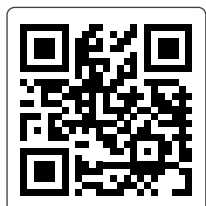
The concepts are encapsulated in a concise and articulate manner, focusing on the presentation of the content beyond just words.

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