PETRONAS

PETRONAS CHEMICALS GROUP BERHAD
Sustainability Report 2019

Well Positioned.
Sustainable Tomorrow

ABOUT
THIS REPORT

This is PCG's second standalone Sustainability Report, which has been produced to provide a clear and concise account of what sustainability means to the Group, and how we ensure our operations are sustainable while contributing to the local communities and the environment.

In producing this report, we have been guided by best practices in general sustainability reporting as well as those targeted specifically to the oil and gas industry. Among the guidelines that we have referred to are Bursa Malaysia's Sustainability Framework, FTSE4Good Bursa Malaysia Index's Environmental, Social and Governance (ESG) indicators, International Petroleum Industry Environmental Conservation Association's (IPIECA) Oil and Gas Industry Guidance on Voluntary Sustainability Reporting, the Global Reporting Initiative (GRI) and Dow Jones Sustainability Index (DJSI).

Contents of the report have been determined by a materiality assessment. Material issues identified and prioritised by the assessment have been presented under three main categories, namely: Creating Economic Value, Responsible Use of Environmental Resources, and Empowering Our Workforce & Society. This year, we have also added another section to the report – New Plastics Economy (NPE) – to highlight a key initiative that PCG has embarked on. It is a holistic initiative with elements that contribute to creating economic value, responsible use of environmental resources and empowering society.

For each material matter, we have sought to explain why it is important and how PCG is ensuring we are able to create value by managing the matter responsibly and with integrity. In reporting, we provide both quantitative as well as qualitative data. Where possible, we disclose targets that have been set and indicate initiatives taken to achieve these. In instances where we have not met our goals, we strive to be transparent in describing our challenges and measures taken to overcome them.

BOUNDARIES OF REPORTING

In this report, we have presented relevant data from all the manufacturing subsidiaries within the Group in which we have more than 50% ownership. As we have operational control in these companies, we are able to guide them in terms of sustainability and ensure they adopt our approach in managing all material matters sustainably. This year, we have not included data from Da Vinci Group B.V. (DVG), as our acquisition was completed only in mid-September and we have yet to fully integrate our sustainability platforms.

REPORTING PERIOD

This report covers initiatives undertaken during the financial year from 1 January to 31 December 2019, unless stated otherwise.

MATERIALITY

In presenting the information, we have been guided by matters that are material to our targeted readers. These matters were identified, prioritised and validated via a four-step materiality assessment.

DATUK SAZALI HAMZAH
Managing Director/
Chief Executive Officer

MD/CEO'S
MESSAGE

Dear Valued Stakeholders

It gives me great pleasure to present PCG's Sustainability Report for the year 2019. Sustainability is integral to our operations and, through our reports, we seek to provide you with a comprehensive account of our sustainability agenda, the activities we undertake and results obtained, as well as challenges faced.

There are many global issues today that require multi-stakeholder engagement to resolve. The United Nations has outlined 17 of what it believes to be the most pressing of these issues, with accompanying goals for each. As a responsible business entity, we seek to play our part and are guided in our sustainability programmes by the UN's Sustainable Development Goals (SDGs). Our objective, ultimately, is to create value for our stakeholders by meeting their needs thus enhancing their well-being while also reducing our environmental footprint and contributing to the sustainability of our planet.

We are also committed to transparent reporting of our initiatives and outcomes for better stakeholder understanding of our approach to sustainability as well as to underline our accountability. As a result of both our sustainability programmes and transparent reporting, PCG is ranked among the top 10 out of the 200 largest companies by market capitalisation in the FTSE4Good Bursa Malaysia (F4GBM) Index since it was launched in 2014.

In reporting, we comply with Bursa Malaysia's Sustainability Reporting Guide, while also referring to the International Petroleum Industry Environmental Conservation Association (IPIECA)'s Oil and Gas Industry Guidance on Voluntary Sustainability Reporting for more specific guidelines relevant to an oil and gas company.

The year 2019 was significant in that it saw PCG take a bold move to further strengthen our sustainability agenda by introducing the New Plastics Economy (NPE) initiative. NPE is a holistic programme that seeks to transform all plastic waste into valuable resources that can be fed back into a circular economy. To kick off the programme, we have invested no less than RM8 million in a four-pronged approach encompassing education, innovation, infrastructure and clean-up.

Our commitments include:

1. The investment of RM5 million to develop an educational module for primary and secondary schools on the sustainable use of plastic, in collaboration with the Ministry of Education (MoE), Malaysian Plastics Manufacturers Association (MPMA) and Solid Waste and Public Cleansing Corporation (SWCorp)

2. Technology development to process non-recyclable single-use plastic waste into crude naphtha, in collaboration with Plastic Energy Ltd with an estimated cost of RM150 million

3. Development of a Solid Waste Modular Advanced Recovery and Treatment (SMART) plant together with Cypark Resource Berhad (Cypark) with an estimated cost of RM30 million

4. RM0.6 million to carry out clean-up activities in 2019 to reduce the volume of litter found in our rivers and coastal areas while educating the community on the importance of the 3Rs

MD/CEO'S MESSAGE

I am proud to share that, through our NPE efforts, we are taking the leadership role in shaping the future of Malaysia's circular economy initiative spearheaded by the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) supported by Malaysia Plastic Pact members including MPMA and the Malaysian Petrochemicals Associations (MPA).

Meanwhile, we have continued to intensify efforts to further reduce our environmental impact and improve our social reach while enhancing our governance framework.

Environmentally, constant reinforcement of initiatives to reduce our energy consumption led to a 13% decrease in our energy intensity from the 2014 baseline a year ahead of schedule. Through better energy efficiency, we have also lowered our greenhouse gases (GHG) emissions intensity.

Within the workplace, we focus on our employees' and contractors' well-being. Safety is a primary concern, and I'm pleased to note that, in 2019, we achieved our best safety scorecard, recording zero fatality and reduced lost time injury frequency (LTIF) in both manufacturing and commercial activities. Land transport of our products is managed by contractors. To ensure the safety of their drivers, we provide road safety training. In addition, our top management regularly engage with the transport companies, underlining our commitment to zero incidents. In 2019, to fulfil our delivery commitments in Malaysia, Singapore and Thailand, we saw more than 27,000 trips on average per month. To achieve zero incident is a huge challenge. We were aided in this regard by leveraging a newly installed RM2.6 million digital system that provides an analytics dashboard enabling the detection of risky driving behaviour.

> " The year 2019 was significant in that it saw PCG take a bold move to further strengthen our sustainability agenda by introducing the New Plastics Economy (NPE) initiative. "

NPE FOUR-PRONGED APPROACH

- Education
- Innovation
- Infrastructure
- Clean-up

" Women make up 36.4% of our Management Committee and 25.0% of our Board, marking a three percentage point increase from 2018 and bringing us closer to the 30% target as set by the Government. **"**

We are passionate about creating a workplace that promotes and values diversity, as we recognise its benefits, particularly the different opinions and perspectives that will help us in progressing the company. Women enrich the workplace with their skills, talent and unique perspective. As our plant workforce is predominantly male, women make up only about 17.4% of our total workforce. However, their representation in the corporate space is more equitable. Women make up 36.4% of our Management Committee and 25.0% of our Board, marking a three percentage point increase from 2018 and bringing us closer to the 30% target as set by the Government. To encourage more women to join PCG and to stay with us, we continue to help them achieve a better work-life balance through the provision of flexible working arrangement and extended maternity leave.

Our sustainability efforts are underpinned by strong corporate governance, which we continue to reinforce in line with recommendations of the Malaysian Code on Corporate Governance 2017 (MCCG 2017). This saw us set up a new Board Risk Committee to further enhance our risk oversight, adding to the existing Board Audit Committee and Nomination and Remuneration Committee. The Board as a whole comprises four Independent Non-Executive Directors (INEDs), who make up 50% of its composition, two of whom are foreign Directors.

On a related note, I represented the Group in signing an Integrity Pact with the Malaysian Anti-Corruption Commission (MACC), underlining our commitment to observing integrity in all our dealings with stakeholders.

We have achieved much in 2019, however, we realise there is yet more to do. Going forward, we will continue focusing on the 12 SDGs where we have the greatest impact, namely SDG 3: Good Health and Well-Being; SDG 4: Quality Education; SDG 6: Clean Water and Sanitation; SDG 7: Affordable and Clean Energy; SDG 8: Decent Work and Economic Growth; SDG 9: Industry, Innovation and Infrastructure; SDG 11: Sustainable Cities and Communities; SDG 12: Responsible Consumption and Production; SDG 13: Climate Action; SDG 14: Life Below Water; SDG 15: Life on Land; and SDG 16: Peace, Justice and Strong Institutions.

We have set 2024 targets in supporting SDG 12 and SDG 13, namely to increase our waste recycling rate by 82% and to cap our GHG emissions at 6.92 million tonnes (equivalent to 100,000 tonnes of CO_2e reduction). We aim to set more targets for the other SDGs in due time. This will be one of the goals of our newly set up Sustainable Development Department.

I look forward to reporting on our achievements next year. Meanwhile, I hope you enjoy reading this Sustainability Report, and provide us feedback on how we can improve in our endeavour to create value for you.

DATUK SAZALI HAMZAH
MANAGING DIRECTOR/
CHIEF EXECUTIVE OFFICER

WHO WE ARE

PCG is the chemical arm of PETRONAS specialising in the manufacturing, marketing and selling of a diversified range of chemical products. Listed on 26 November 2010, we have a market capitalisation of RM58.8 billion as at 31 December 2019, positioning us among the top five on Bursa Malaysia. We also rank among the top ten in the FTSE4Good Bursa Malaysia (F4GBM) Index, out of 200 largest companies by market capitalisation.

Established more than 30 years ago, PCG is one of the largest integrated chemicals producers in Southeast Asia.

In September 2019, we made our first foray via acquisition into specialty chemicals and specifically in the growing silicones business, through Netherlands incorporated Da Vinci Group (DVG).

With this acquisition, the Group now has a total asset base of RM38.9 billion as at 31 December 2019 and a combined production capacity of 12.8 million tonnes per annum (million tpa) from 11 production sites in Malaysia, Netherlands, Canada, Singapore and Germany. Two of the sites in Malaysia are fully integrated chemicals complexes from feedstock to products.

ONE OF THE LARGEST INTEGRATED CHEMICALS PRODUCER IN SOUTHEAST ASIA*

LARGEST METHANOL PRODUCER IN ASIA PACIFIC & **4TH LARGEST** IN THE WORLD*

LARGEST MTBE, BUTANOL, BGE & EOA PRODUCER IN SOUTHEAST ASIA*

2ND LARGEST UREA, AMMONIA & BUTYL ACETATE PRODUCER IN SOUTHEAST ASIA*

3RD LARGEST MEG, LDPE & ETHOXYLATES PRODUCER IN SOUTHEAST ASIA*

NEWLY ACQUIRED DVG, LEADING INDEPENDENT PRODUCER AND FORMULATOR OF SILICONES, LUBE OIL ADDITIVES AND CHEMICALS

MORE THAN 4,500 EMPLOYEES

* By capacity

WHAT WE DO

We produce a range of commodities and specialty chemicals that are used by customers in different sectors – from agriculture to automotive, and packaging to personal care – to manufacture items that enhance our daily life.

PRODUCT PORTFOLIO

Polymers

Methanol and MTBE

Ammonia and fertilisers

Aromatics

Olefins, glycols and derivatives

Silicones, lube oil additives and chemicals

Products from JVs and associates

APPLICATIONS

Construction

Electrical and electronics

Packaging

Personal care

Agriculture

Textile

Automotive

Pharmaceutical

Further details of our products can be found on www.petronaschemicals.com

KEY HIGHLIGHTS

BUSINESS

World-Class Safety Performance (LTIF)*
0.08
2018: **0.13**

Production Volumes
10.4 million tpa
2018: **10.4 million tpa**

Sales Volumes
8.4 million tpa
2018: **8.4 million tpa**

PIC Project Completion
99.8%
2018: **96.0%**

Plant Utilisation (PU)
92%
2018: **92%**

Growth: Acquisition of **DVG**,

Achieved 2 Final Investment Decisions (FIDs) for **Butadiene Derivative and Specialty Chemicals**

5 New Products
- PETRONAS AireBlue™ • PETRONAS PowerClean™ TS301 • PETRONAS PowerClean™ RS301
- PETRONAS PowerClean™ WS601 • Nitrogen Stabilised Urea

* LTIF based on Oil and Gas industry benchmark of 0.27

FINANCIAL

Revenue
RM16.4 billion
2018: **RM19.6 billion**

EBITDA
RM4.4 billion
2018: **RM7.0 billion**

Total Dividend
RM1.4 billion
2018: **RM2.6 billion**

Profit After Tax (PAT)
RM2.8 billion
2018**: **RM4.9 billion**

EBITDA Margin
27.2%
2018: **35.6%**

Total Assets
RM38.9 billion
2018: **RM37.4 billion**

** Certain financial information and its corresponding financial ratios have been restated due to change in accounting policy in 2019 with respect to investment tax allowance

SUSTAINABILITY

NPE Education Reach
~35,000 people

Corporate Social Responsibility (CSR) Initiatives Reach
~20,000 people
2018: **13,000**

Key Initiatives

ecoCare
A collaborative programme with the Malaysian Nature Society (MNS) which supports preservation and rehabilitation of the mangrove habitat.

Number of Trees Planted	Number of Visitors
6,319	**4,065**
2018: **2,944**	2018: **4,374**

Be Green
An environmental conservation and plastic waste management awareness programme conducted in collaboration with Malaysian Plastic Manufacturers Association (MPMA), in line with NPE.

Number of Volunteers
2,700
2018: **1,370**

Back-To-School
A programme which provides school necessities and assistance to underprivileged students in our areas of operation.

Number of Beneficiaries
1,100
2018: **800**

GHG Emissions Intensity
0.83 tonne CO_2e**/tonne
2018: **0.87 tonne CO_2e/ tonne**

Energy Intensity
15.37 GJ/tonne
2018: **16.36 GJ/tonne**

Water Withdrawal Intensity
4.37m³/tonne
2018: **4.68m³/tonne**

Waste Generation
25.53 kilotonnes
2018: **28.21 kilotonnes**

Women Representation in Senior Management***
25.2%
2018: **20.0%**

Number of Technical Professionals (TP) Developed
26
2018: **16**

** Carbon dioxide (CO_2) equivalent
*** Senior Manager and above
For environmental footprint intensity, the unit is based on per tonne of production

SUSTAINABILITY
AT PCG

OUR APPROACH TO SUSTAINABILITY

Sustainability at PCG is driven by a deep-rooted commitment to operating in a manner that is environmentally and socially responsible. We believe that, in order to achieve our vision of becoming '*The Preferred Chemical Company Providing Innovative Customer Solutions*', we cannot rely only on Operational, Commercial and Growth Delivery Excellence. Equally as important as these business imperatives is value creation for our stakeholders.

Our stakeholders are increasingly concerned about a number of pressing global issues, some of which are directly related to the operations of corporations. These material matters shape our sustainability agenda and initiatives in order to manage external risks while also presenting opportunities for growth.

(SR) *Please refer to our Materiality Assessment on page 13.*

Our objective is to embed sustainability into our operations in order to play our part in shaping a better, healthier and more equitable world. We recognise the Sustainable Development Goals (SDGs) as a comprehensive global agenda for sustainable development and we have aligned our sustainability initiatives with the relevant SDG targets.

Broadly, our Sustainability Strategy focuses on three priority areas, namely Creating Business Value, Responsible Use of Environmental Resources, and Empowering Our Workforce & Society. The 16 material matters we have identified have been categorised under these three focus areas, and form the core of this Sustainability Report.

(SR) *Please refer to Our Sustainability Strategy to understand how our material matters are linked with our sustainability agenda and outcomes on page 20.*

Sustainability is necessarily an ongoing journey, and we are committed to keep enhancing both the scope of our initiatives as well as the depth of our reporting. This is still a relatively new journey for us, and we value your feedback on how we can further improve. To send us your input, please email us at petronaschemicals_ir@petronas.com

Our Commitment to the SDGs

In 2015, the UN outlined 17 SDGs to address global challenges including those related to poverty, inequality, climate change and environmental degradation. The SDGs set an agenda for governments, non-governmental organisations (NGOs), corporations and all other stakeholders across the world to work together to create a sustainable future for all by 2030.

Recognising the criticality of the issues targeted, and in continuing efforts to support the nation's socio-economic development, PETRONAS Group has "adopted" seven of the SDGs which now serve to guide its sustainability agenda. These are **SDG 3:** Good Health and Well-Being; **SDG 4:** Quality Education; **SDG 7:** Affordable and Clean Energy; **SDG 8:** Decent Work and Economic Growth, **SDG 9:** Industry, Innovation and Infrastructure; **SDG 12:** Responsible Consumption and Production; and **SDG 13:** Climate Action.

Following an evaluation of our operations and the impact we have on communities, PCG has embraced the seven SDGs mentioned and added another five: **SDG 6:** Clean Water and Sanitation; **SDG 11:** Sustainable Cities and Communities; **SDG 14:** Life Below Water; **SDG 15:** Life on Land; and **SDG 16:** Peace, Justice and Strong Institutions. We have termed these our priority SDGs and refer to them in shaping our sustainability directions as well as our policies.

HOW SUSTAINABILITY IS GOVERNED

Sustainability at PCG is led by the highest level of governance within the organisation, namely our Board of Directors. Our Board is kept informed of sustainability policies, goals and initiatives by our Management Committee, led by our Managing Director/CEO. The Management Committee oversees all sustainability matters, providing direction on our sustainability actions and endorses all the decisions recommended with regards to sustainability.

At the working level, sustainability is the responsibility of our Sustainable Development Working Committee (SDWC). The SDWC comprises heads of various departments within PCG who formulate the Group's sustainability strategy and monitor actions plans put into motion to achieve the objectives set. The SDWC works closely with its counterparts in other PETRONAS companies to ensure uniformity of vision and goals.

Management Committee
Provides direction and endorses all decisions pertaining sustainability

Board of Directors
Oversees PCG's implementation & performance on sustainability

On-going

Quarterly Reporting

Sustainability Development Working Committee
Formulate sustainability strategy and monitor objectives and action plans

Periodic

PETRONAS Chemicals Group (PCG HSE, Corporate Office)
- Consolidate, monitor and analyse sustainability reporting
- Lead formulation of sustainability strategy, objectives and action plans
- Coordinate cross-department sustainability initiatives
- Report sustainability performance

PCG subsidiaries
- Reporting of sustainability related KPI
- Managing sustainability related risk and opportunity

Quarterly Reporting

Role of the SDWC:

1 Reviews quarterly information that will be reported to the Management Committee. This includes:

| Description of how the different material matters are managed | ▶ | Quantitative data and performance indicators related to each material matter | ▶ | Status of actions taken to support each material matter |
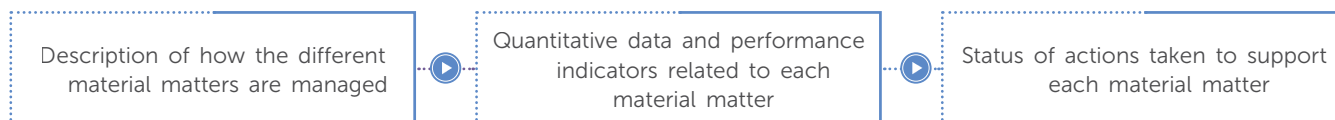
2 Monitor quarterly performance indicators against targets.

3 Coordinates cross-departmental enhancements and initiatives.

4 Conducts an annual materiality assessment to determine PCG's sustainability focus areas and formulate sustainability strategy.

5 Reviews data related to each material matter that will be publicly reported.

6 Implement initiatives that are required to support each material matter.

SUSTAINABILITY AT PCG

ORGANISATION CHART FOR SUSTAINABILITY

Board of Directors

Management Committee

Chairperson
Fauzamsaari Geran
Head of HSE Department

Secretary
M Khairul Anuar Bakri
Staff Engineer
(Environmental Management)

Members of the SDWC

Manufacturing	**Innovation & Technology**	**Supply Chain Management**
Mohd Noor Fitri Mohd Yusof *Head* *(Operations Management)*	**Shri Gugan Siva Subramaniam** *Head* *(Product Stewardship)*	**Siti Aishah Hamzah** *Head* *(Procurement Planning)*
Human Resource Management **Norapidah M Rahim** *Head* *(People Planning)*	**Risk Management** **Hazlina A Hamid** *Head* *(Risk Planning & Performance)*	**Commercial** **Marlina A Razak** *Head* *(Commercial Performance & Planning)*
Corporate Affairs and Administration **Sallehuddin M Adib** *Head* *(Corporate Social Responsibility)*	**Investor Relations** **Safarah Zeba M Salim** *Head* *(Investor Relations)*	**Strategic Planning & Ventures** **Sazlin Siron** *Head* *(Strategy and Portfolio)*
	Project Directorate **M Nazrul Razi A Razak** *Head* *(Project Services)*	

MATERIAL MATTERS

Various economic, social and environmental factors impact our performance as well as our ability to create value for our stakeholders, now and in the future. These factors comprise our material matters. We seek to understand what our material matters are in order to better define our strategies and develop plans that focus on our most important issues. Knowledge of our material matters would also enable us to allocate our resources more effectively in order to manage emerging issues and meet our stakeholders' expectations.

As the chemicals industry is sensitive to changes in our operating landscape, it is important to review our material matters regularly. In 2019, the industry was particularly challenging due to increased global capacity and dampened demand. Along with this, we continued to see new regulations and standards aimed at managing global issues, and increasing stakeholder expectations especially with regard to environmental matters. This prompted a refresh of our material matters based on a new materiality assessment.

As topics related to customers are becoming more significant, we expanded our growth material topic in 2018 into two categories in 2019; Customer Centricity and Market Dynamics. In these two categories, we are addressing topics on Price & Market Volatility, Innovation & Product Stewardship and Customer Relationship Management.

Our Materiality Assessment

We conducted our first materiality assessment in 2016 and have been updating our material matters annually since, using industry trends, stakeholders feedback and management reviews to guide us. In 2019, we conducted a completely new materiality assessment applying the GRI Reporting Principles of Stakeholder Inclusiveness, Sustainability Context, Materiality and Completeness.

The materiality assessment comprises four steps:

Step 1: Identification

Internally, we conducted a review of issues, risks and opportunities that impact our business and strategy as well as key and emerging risks from our Corporate Risk Profile. This was supplemented by research on sustainability issues in the current landscape. We reviewed global and industry-specific sustainability trends, and key topics in global standards. We also reviewed the reports of peers, focusing on their stakeholders expectations and interests.

Step 2: Stakeholder Engagement

For an update on our stakeholders' perspectives, we interviewed 11 stakeholders from different groups – five comprising members of PCG's leadership team (to determine the impact of identified issues on PCG's business) and six comprising external stakeholders, ie investors (including socially responsible investors), customers and influencers (regulators and government agencies). With each interviewee, we discussed how they would prioritise PCG's identified material matters.

Step 3: Prioritisation

Based on feedback from the interviews, we assessed the importance of each identified material matter taking into consideration its impact on the business and stakeholder interest. To determine its business impact, we scored each material according to its financial, operational and reputational significance, and took a weighted average. The same process was adopted for stakeholders, this time averaging the scores obtained based on the extent to which the material matter would influence customers' and investors' decisions; and whether the matter is perceived to be a priority among influencers. Finally, the material matters were plotted on a materiality matrix, with the x-axis representing importance to the business, and y-axis importance to stakeholders.

Step 4: Validation

The materiality matrix was reviewed and approved by our Sustainable Development Working Committee (SDWC) and, Management Committee.

Indicators and targets for material matters are set annually and reviewed by the Management Committee on a quarterly basis.

Materiality Matrix

As shown in the materiality matrix, we have identified and prioritised 16 material matters, five of which – Innovation & Product Stewardship, Customer Relationship Management, GHG Emissions & Climate Adaptation, Talent Development and NPE – are high priority. All 16 matters are considered in developing our sustainability strategies and initiatives. We also report on all these matters in our Sustainability Report.

For ease of reference, these material matters have been categorised into six broad groups.
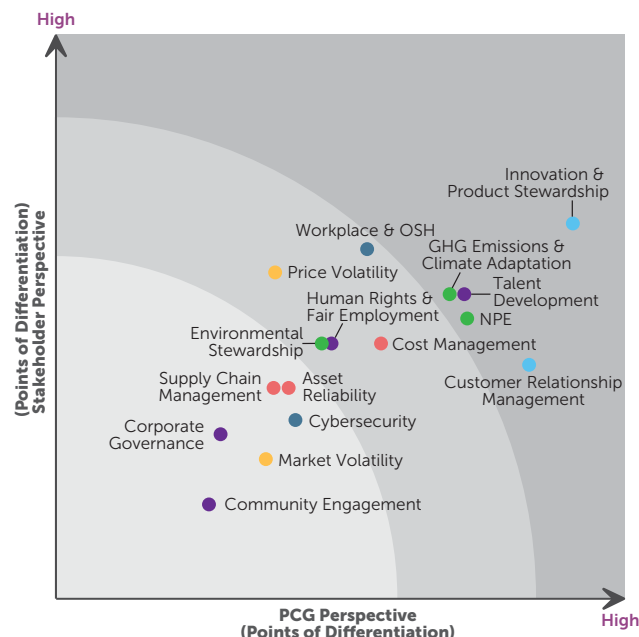
- **Business Operations:** Cost Management, Asset Reliability, Supply Chain Management
- **Market Dynamics:** Price & Market Volatility
- **Customer Centricity:** Innovation & Product Stewardship, Customer Relationship Management
- **Environment:** Environmental Stewardship, GHG Emissions & Climate Adaptation, NPE
- **Social and Governance:** Corporate Governance, Human Rights & Fair Employment, Community Engagement, Talent Development
- **Health and Safety:** Cybersecurity, Workplace and Occupational Safety & Health (OSH)

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

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

SUSTAINABILITY AT PCG

Our Material Matters

Material Matter	Definition	Importance to Value Creation	
Innovation & Product Stewardship	Building competitive advantage through high-performance products and innovative solutions to meet customer and societal needs.	Innovation enables the realisation of our business vision to be 'The Preferred Chemical Company Providing Innovative Customer Solutions' and supports long-term resilience and diversification into specialty chemicals.	
Customer Relationship Management	Creating sustainable and collaborative business relationships, delivering quality products to meet customers' needs.	Customers are the core of our business strategy to achieve commercial excellence. Strong partnerships to co-create innovative products bring added value to the business.	
GHG Emissions and Climate Adaptation	Adapting the business for a changing climate, limiting GHG emissions by improving production technology and low-carbon process.	Climate change related topics dominate the corporate sustainability agenda, particularly for the oil & gas and petrochemicals industries.	
Talent Development	Attracting, developing and retaining high-performing employees, creating an inclusive and diverse culture.	Investing in the workforce is essential for business success in a rapidly changing external environment. Talent development allows PCG to deliver on our business strategy and brand promise.	
New Plastics Economy	Initiative to address plastic pollution in Malaysia through holistic approach by adopting circular economy concept.	Plastic is now the new threat to the environment if not managed effectively. Through NPE, the value of plastic is optimised by imparting the right knowledge and behaviour to improve recycling rate, as well as incorporating infrastructure and technology solutions through collaboration with relevant parties in realising the circular economy of plastic in Malaysia.	
Workplace and OSH	Improving and maintaining safety and health in our operations, mitigating HSE or process safety incidents.	Workplace health & safety underpins PCG's financial success, safeguarding human and asset resources. Managing this topic secures our license to operate.	
Cost Management	Rigorous discipline to maintain competitive cost levels & manage working capital to ensure availability of the required funding.	Cost management has direct impact on PCG's financial performance, affecting the entire value chain.	

	Risk	Opportunities	Stakeholder Affected	Performance and Key Initiatives	SDGs
	Impact on competitive edge as peers move quickly with specific innovation programmes to develop products with societal benefit. Inherent risk of dealing with new types of chemicals as we enter into specialty chemicals play.	Innovation to meet downstream market requirements including sustainable solutions. Product stewardship ensures high quality and safety standards are met.	(icons)	**SR** *Read more on page 29-31*	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Impact to revenue due to reduced customers' confidence and loyalty. Unable to meet customers' expectations may impact our brand and reputation.	Collaboration on global opportunities such as NPE and co-creation of products for business growth. Transparent dialogue ensures continuous improvement.	(icons)	**SR** *Read more on page 32-33*	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Customers' preference for environmental friendly product. Shareholders' inclination to invest in companies with sustainable commitment. Reallocation of capitals to cleaner and greener investments by financial institutions. Significant investment into technologies and infrastructure to address climate change and to look beyond own operations. Increase in operational costs to meet regulatory requirements for GHG emissions and climate change	Decarbonising the economy presents innovation opportunities. Gain stakeholders confidence and create value for customers through products, supporting a low-carbon economy.	(icons)	**SR** *Read more on page 35-37*	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION
	Challenge in attracting, developing and retaining the right talents to achieve high-performance organisation. Lack of knowledge and competency to manage high value assets, leading to inability to sustain world-class plant utilisation. Lack of capability and competency to grow in derivatives and specialty chemicals business	Become a more agile, diverse and inclusive business entity through an empowering culture. Ensure skills and capabilities to deliver business strategy.	(icons)	**SR** *Read more on page 46-47*	8 DECENT WORK AND ECONOMIC GROWTH
	Reputational risk if plastic waste issue is not addressed comprehensively.	Opportunities for PCG to take circular economy leadership role in Malaysia, collaborate with customers and value chain partners to innovate and deliver solutions in line with our sustainable growth aspiration.	(icons)	**SR** *Read more on page 21-23*	8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 14 LIFE BELOW WATER
	Operational impact through damaged assets, financial impact through cost of recovery.	Emphasis on Health & Safety culture attracts and retains talent, supports reliability of operations and meets customer priorities.	(icons)	**SR** *Read more on page 41-45 & 48*	3 GOOD HEALTH AND WELL-BEING; 8 DECENT WORK AND ECONOMIC GROWTH
	Impact the delivery of financial value to shareholders, lack of working capital restricts ability to react to unexpected business risks.	Management of working capital allows us to focus on business objectives and strategic future investment, to ensure long-term value creation.	(icons)	**IR** *Read more on page 73*	8 DECENT WORK AND ECONOMIC GROWTH

SUSTAINABILITY AT PCG

Material Matter	Definition	Importance to Value Creation	
Price Volatility	Volatility due to pricing of raw materials and feedstock.	PCG financial performance depends upon resilience to changes in raw material pricess.	
Human Rights and Fair Employment	Managing human rights risks and ensuring fair employment.	Ensure PCG activities are governed by human rights principles, laws, best industry practices and standards to manage impacts in areas of operation.	
Environmental Stewardship	Minimise and mitigate negative impact on society and the environment, managing our air emissions, designing responsible management of wastes and chemicals of concern.	Conserving the environment and resources for future generations to improve operational excellence and maintain reputation.	
Asset Reliability	Designing and managing reliability and performance of equipment to consistently deliver value and avoid disruptions.	High performing assets are critical to PCG's ability to generate revenue and meet customers' needs.	
Cybersecurity	Securing data from cyber-attacks and breach of privacy.	As PCG embraces digital technologies, protection of computer systems and networks from intrusion, damage to hardware or software, and misuse of data is critical.	
Supply Chain Management	Procurement policies, contractor management and supplier relationships which address material issues across the value chain.	Management of upstream suppliers is critical to ensure reliable delivery of products to customers.	
Market Volatility	Volatility in supply and demand imbalance and geopolitical factors.	Adverse market conditions caused by supply and demand imbalance and geopolitical factors will significantly affect business growth.	
Corporate Governance	Business policies and practices to ensure ethical, transparent and responsible governance.	Corporate governance involves acting responsibly to build trust and communicating transparently with stakeholders. It is part of PCG's culture and provides PCG our license to operate.	
Community Engagement	The role of business in economic empowerment and positive social impact for local communities.	Through community engagement, PCG contributes to the well-being and empowerment of local communities within our areas of operation.	

	Risk	Opportunities	Stakeholder Affected	Performance and Key Initiatives	SDGs
	Increase in base costs affect PCG's ability to make strategic investments to support delivery of business strategy.	Increase resilience to pricing shocks through products optimisation and innovation, partnership with upstream suppliers and the management of non-market costs.		(IR) Read more on page 74	8 DECENT WORK AND ECONOMIC GROWTH
	Regulatory and reputational risk if human rights are breached. Loss of customers.	Fair employment practices attract talents. Supporting human rights ensures customer expectations are met, and provides opportunity to collaborate with upstream suppliers.		(SR) Read more on page 50	8 DECENT WORK AND ECONOMIC GROWTH
	Regulatory and reputational risk through non-compliance.	Reduce costs (waste reduction and recycling), increase production efficiency (reduce emissions and water use).		(SR) Read more on page 38-40	6 CLEAN WATER AND SANITATION / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Impact to operations, production, meeting customers demand and stakeholders trust.	Improving assets allows PCG to deliver stakeholder value, maintain best-in-class safety culture and minimise environmental impacts.		(IR) Read more on page 74	8 DECENT WORK AND ECONOMIC GROWTH / 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
	Network intrusion of manufacturing operations prevents PCG from delivering customer needs and leads to higher recovery costs.	Safe use of technology improves operational efficiency while supporting innovation.		(IR) Read more on page 75	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
	Reliability of supply chain relationships.	Partnership with suppliers to better meet downstream needs and market opportunities and to share PCG safety, technical and HSE expertise.		(SR) Read more on page 34	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	Low prices impacting financial performance	Investment into specialty segment will allow PCG to be less dependent on market volatilities.		(IR) Read more on page 75	–
	Reputational and regulatory risk affecting stakeholder trust.	Transparent corporate governance leads to efficient execution of business plans, creates high-performance culture, supports strong relationships with suppliers and customers.		(SR) Read more on page 24-28	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	Reputational risk impacting community livelihoods.	Community engagement provides insights to strengthen business strategy, avoids unnecessary conflict and supports delivery of key projects, eg NPE.		(SR) Read more on page 51-53	4 QUALITY EDUCATION / 11 SUSTAINABLE CITIES AND COMMUNITIES / 14 LIFE BELOW WATER / 15 LIFE ON LAND

SUSTAINABILITY AT PCG

STAKEHOLDER ENGAGEMENT

We define our stakeholders as those who are able to influence our operations or reputation, as well as those who are impacted by them. Over the years, we have identified eight main stakeholder groups, namely our employees, customers, suppliers & vendors, business partners, shareholders and investment community, government and regulators, communities and the media.

Each group is important to us, and we seek to build relationships with them based on trust via open and transparent communication. Through established engagement platforms, we keep our stakeholders updated on our operations, performance and direction, while obtaining feedback on their needs, interests and expectations. The latter guides our strategies, plans and every-day actions.

A summary of our stakeholder groups, explaining our value proposition to them and why they are important to us, as well as topics of interest covered in our engagement, and their key concerns – is presented below.

	Employees	Customers	Suppliers & Vendors	Business Partners
Value Delivery	Competitive salary & attractive benefits, development & career opportunities and work-life balance.	Co-creation of products and technical solutions, constant engagement & contact and safe and timely delivery.	Valuable contracts, development programmes, safety training.	Our brand and market reputation, network of customers and track record of reliable operations.
Why We Engage	Our employees are key to our success as they drive and ensure continued business growth and excellence.	Customers determine our commercial success. They drive the markets we are in.	Our suppliers and vendors complete our value chain by providing us with feedstock & utilities, and helping us transport & deliver our products safely and efficiently.	We leverage our partners' technical expertise to expand our product portfolio.
Engagement Channel & Frequency	• Townhalls • People Development Committee (PDC) meeting • Intranet communication • Staff engagement and appreciation sessions • HSE campaigns **M Q Y**	• Periodic visits to customers site/venue • Customer satisfaction survey and feedback management system • Customer appreciation programmes • Product stewardship seminars **W M Q Y**	• Regular meetings • Day-to-day interactions • Forums • Site visits **W M Q Y**	• Day-to-day interactions • Periodic meetings • Strategic dialogue • Conferences/forums **W M Q Y**
Key Concerns	• Health, safety & human rights • Career progression • Work-life balance • Flexible working arrangement	• Product quality & delivery • Health, safety & human rights • Environmental issues such as carbon emissions, water & energy • Sustainability in supply chain • Plastics waste and pollution • Product pricing and credit terms	• Health, safety & human rights • Ethical business practices • Sustainability in supply chain	• Health, safety & human rights • Company performance • Ethical business practices • Regulatory compliance • Continuous value creation in existing partnership
Our Response	SR *Please refer to Material Matters* **page 14 & 15**	SR *Please refer to Material Matters* **page 14 & 15**	SR *Please refer to Material Matters* **page 16 & 17**	SR *Please refer to Material Matters* **page 16 & 17**

Quality of Engagement

⬡◯◯◯◯ No existing relationship

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

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

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

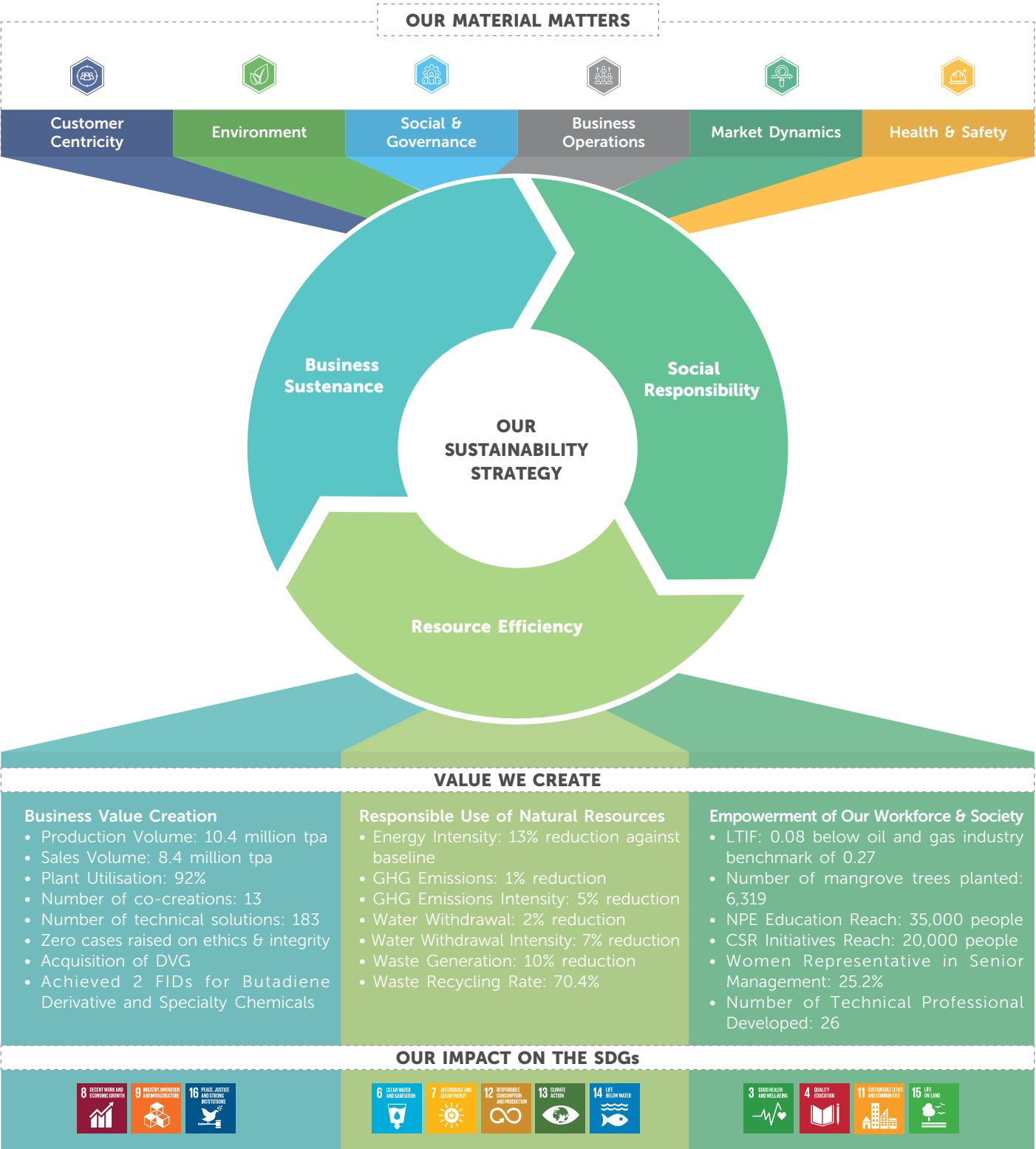⬡⬡⬡⬡⬡ Strong relationship of mutual benefit

Frequency of Engagement

W Weekly

M Monthly

E Every Two Months

Q Quarterly

T Twice Yearly

Y Yearly

Shareholders & Investment Community	Government & Regulators	Communities	Media
⬡⬡⬡⬡◯	⬡⬡⬡◯◯	⬡⬡⬡⬡◯	⬡⬡⬡⬡◯
Consistent returns on investment, business excellence & growth and strong governance.	Compliance with regulations, strong governance, New Plastics Economy and payment of tax.	Robust HSE policy, NPE to address plastic waste issues and spurring economic growth including providing job opportunities.	Openness and transparency on business operations and performance.
Our shareholders are an important source of financial capital to fund our business & growth plans.	The government facilitates a conducive, ethical marketplace that attracts foreign investors and customers.	Our local communities endorse our social licence to operate. They also provide labour for our operations.	The media presents an important channel for us to communicate key messages to our stakeholders.
• Investors and analysts briefings • Site visits, meetings and conferences • Integrated Reports • Annual General Meetings • Announcements via Bursa Malaysia website. • Company website	• Regular reporting to relevant Government agencies • Plant visits by Government agencies • Regular meetings and briefings with Government agencies and regulators	• CSR programmes • Periodic briefings and engagement with local communities • Festivity celebrations	• Interview with PCG management • Media briefing by PCG management • Media familiarisation visit • Press conferences • Press releases
T **E** **Q** **Y**	**T** **M** **Q** **Y**	**E**	**M** **Q** **Y**
• Responsible and ethical business practices • Shareholders returns • Market dynamics including supply and demand • Business sustainability • Growth • Transparency and timeliness of disclosures • Regulatory compliance	• Regulatory compliance • Environmental management • Health & safety • Ethical business practices	• Safety of our plant operations • Quality of air and water emissions • Job & other income generating opportunities	• Business performance & growth • Environmental management • New innovation and technology • Health & safety • Ethical business practices & regulatory compliance
SR *Please refer to Material Matters page 16 & 17*	**SR** *Please refer to Material Matters page 14-17*	**SR** *Please refer to Material Matters page 16 & 17*	**SR** *Please refer to Material Matters page 14-17*

SUSTAINABILITY AT PCG

OUR SUSTAINABILITY STRATEGY

Our Sustainability Strategy takes into consideration our material matters and is designed to create value for our stakeholders. Outcomes of initiatives under the three broad sustainability focus areas – namely Business Sustenance, Resource Efficiency and Social Responsibility – support the SDGs that we embrace.

OUR MATERIAL MATTERS

Customer Centricity	Environment	Social & Governance	Business Operations	Market Dynamics	Health & Safety

OUR SUSTAINABILITY STRATEGY

- Business Sustenance
- Social Responsibility
- Resource Efficiency

VALUE WE CREATE

Business Value Creation
- Production Volume: 10.4 million tpa
- Sales Volume: 8.4 million tpa
- Plant Utilisation: 92%
- Number of co-creations: 13
- Number of technical solutions: 183
- Zero cases raised on ethics & integrity
- Acquisition of DVG
- Achieved 2 FIDs for Butadiene Derivative and Specialty Chemicals

Responsible Use of Natural Resources
- Energy Intensity: 13% reduction against baseline
- GHG Emissions: 1% reduction
- GHG Emissions Intensity: 5% reduction
- Water Withdrawal: 2% reduction
- Water Withdrawal Intensity: 7% reduction
- Waste Generation: 10% reduction
- Waste Recycling Rate: 70.4%

Empowerment of Our Workforce & Society
- LTIF: 0.08 below oil and gas industry benchmark of 0.27
- Number of mangrove trees planted: 6,319
- NPE Education Reach: 35,000 people
- CSR Initiatives Reach: 20,000 people
- Women Representative in Senior Management: 25.2%
- Number of Technical Professional Developed: 26

OUR IMPACT ON THE SDGs

8 DECENT WORK AND ECONOMIC GROWTH | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

6 CLEAN WATER AND SANITATION | 7 AFFORDABLE AND CLEAN ENERGY | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | 13 CLIMATE ACTION | 14 LIFE BELOW WATER

3 GOOD HEALTH AND WELL-BEING | 4 QUALITY EDUCATION | 11 SUSTAINABLE CITIES AND COMMUNITIES | 15 LIFE ON LAND
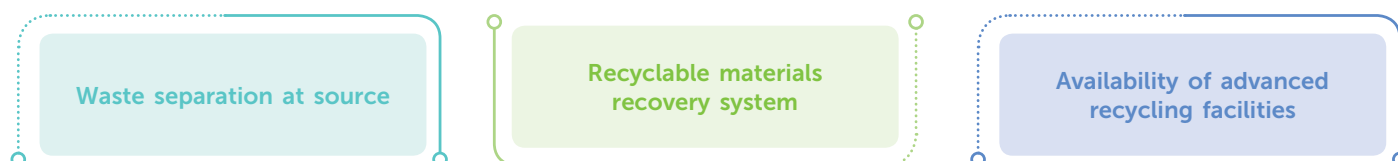
A NEW
PLASTICS ECONOMY

NEW PLASTICS ECONOMY

Plastic waste has become an increasingly critical global issue because it has not been well managed. Most plastic waste is not recycled, and ends up in landfills and oceans hence endangering lives. In response, the Ellen MacArthur Foundation launched a global movement involving business, governments and academia to create a circular economy in which plastic never ends up as waste or pollution. Their New Plastics Economy (NPE) is driving significant change in the way decision makers look at plastic. In Malaysia, the government has outlined Malaysia Towards Zero Single-Use Plastic Roadmap 2018-2030 to address plastic pollution.
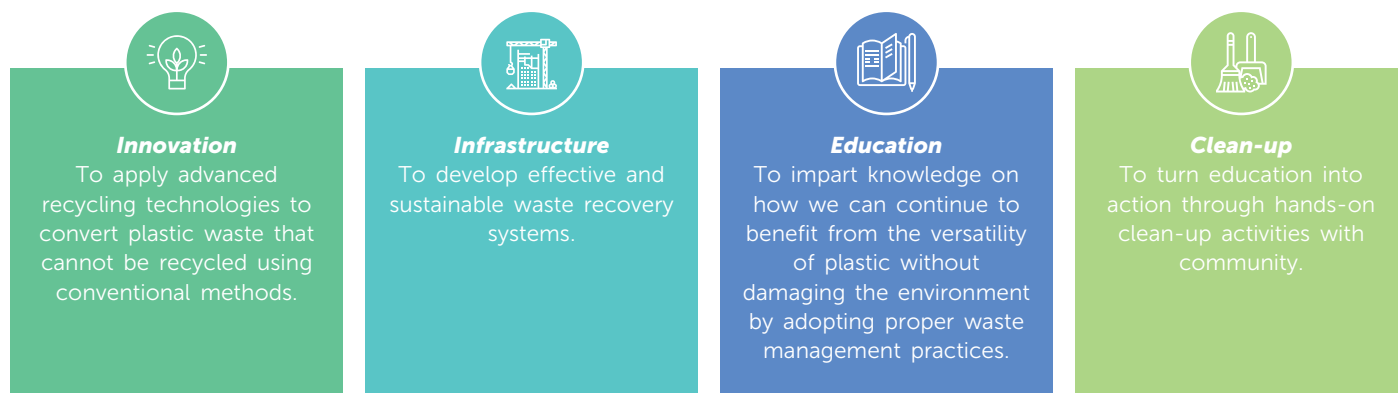
Our Approach

In line with this, PCG has taken up the mantle of spearheading NPE in the country. Collaborating with the government, non-governmental organisations (NGOs), industry players and the community, we seek to address plastic waste through a comprehensive NPE initiative. We believe a lot of value can be harnessed from plastic waste through effective waste management and innovative technology.

We have therefore launched our own NPE initiative, kicking it off with a comprehensive study on Malaysia's waste management. Three key gaps were identified:

Waste separation at source	Recyclable materials recovery system	Availability of advanced recycling facilities

To address these gaps, we set up four dedicated workstreams:

Innovation	*Infrastructure*	*Education*	*Clean-up*
To apply advanced recycling technologies to convert plastic waste that cannot be recycled using conventional methods.	To develop effective and sustainable waste recovery systems.	To impart knowledge on how we can continue to benefit from the versatility of plastic without damaging the environment by adopting proper waste management practices.	To turn education into action through hands-on clean-up activities with community.

In driving the success of the programme, we strive to collaborate with internal and external stakeholders including government agencies, industry players and local communities.

A NEW PLASTICS ECONOMY

Performance and Key Initiatives

Innovation

We inked a collaboration with Plastic Energy Ltd to look into technology development to process non-recyclable plastic waste into crude naphtha. The crude naphtha produced will then be fed as alternative feedstock for the production of recycled virgin-quality polymers. The aim of the collaboration is to build a chemical recycling plant with capacity to process 25,000 tpa of plastic waste to naphtha, the first of its kind in Southeast Asia.

PCG is working closely with plastic converters as well as brand owners to close the loop in ensuring that recycled virgin-quality polymers produced from this process will benefit the industry, and reduce plastic waste leakages to the environment.

Infrastructure

In addressing the existing gap in recyclable materials recovery, we are collaborating with Cypark Resources Berhad (Cypark) to develop a Solid Waste Modular Advanced Recovery and Treatment (SMART) system for municipal waste. Through the system, mixed waste will be sorted into types at a semi-automatic facility. The recyclable materials recovered from this facility will then be processed to create more value instead of ending up in landfills. Plastic collected from this system will be channelled into the most appropriate facilities for treatment and reprocessing prior to being fed back into the circular economy.

Education

We collaborated with the Ministry of Education (MoE), Malaysian Plastics Manufacturers Association (MPMA) and Solid Waste and Public Cleansing Corporation (SWCorp) to develop an educational module for primary and secondary schools on the sustainable use of plastic.

"The Plastic, Sustainability and You" module has been developed to be used by teachers in supplementing their Science, Additional Science, Chemistry, Geography and Sustainability subjects. It underlines that everyone has a role to play in reducing global warming and marine litter, which negatively impact environmental sustainability by managing waste responsibly. The content is available in Malay, English, Mandarin and Tamil, and is complemented by videos and interactive learning module to make learning more fun and interesting.

Educational Module Development

Kick-Off
May 2019

Workshops
5 workshops conducted

Production & Delivery
1 October – 30 November 2019

Training of Teachers
February 2020 onwards

NUMBER OF TEACHERS INVOLVED IN MODULE DEVELOPMENT
45

NUMBER OF PRIMARY SCHOOLS
7,773

NUMBER OF SECONDARY SCHOOLS
2,329

Clean-up

To complement our education programmes and expand our reach to the community, we have enhanced our signature CSR programme, Be Green, to educate on plastic waste management as well as to include community clean-up activities. This year, we have also injected elements of the 3Rs (reduce, reuse, recycle) in Be Green via a nationwide #recycleforlifecycle campaign, with the objective of inculcating a culture of waste separation and the 3Rs.

As a broad guideline, we target to recover equal volume of plastic waste as our production volume of polymers for the Malaysian market by 2030, and to redirect this waste into the circular economy.

Indicator	Target	Results
Number of projects established	2	2
Completion of Educational Module	December 2019	November 2019
Number of Be Green Programme Run	4	4

CREATING
ECONOMIC VALUE

As one of the largest companies in the country by market capitalisation, PCG recognises we have an enormous duty to operate responsibly in order to sustain the economic value we create for our shareholders, customers and suppliers, among others. Our efforts are underpinned by upholding the highest level of corporate governance to deliver growth and to be accountable to our stakeholders.

CORPORATE GOVERNANCE

We are committed to a well-defined system of corporate governance as it allows us to manage our risks effectively while enhancing our credibility and reputation thus reinforcing the confidence of our key stakeholders in our ability to deliver our goals and objectives.

Guided by best practices in corporate governance such as the MCCG 2017, we have a robust framework of internal controls, policies and procedures that ensure we maintain the highest level of ethics and compliance.

Our commitment towards transparency and accountability is well-recognised, as reflected by numerous awards received from various authorities. During the year under review itself, we were honoured with the following accolades:
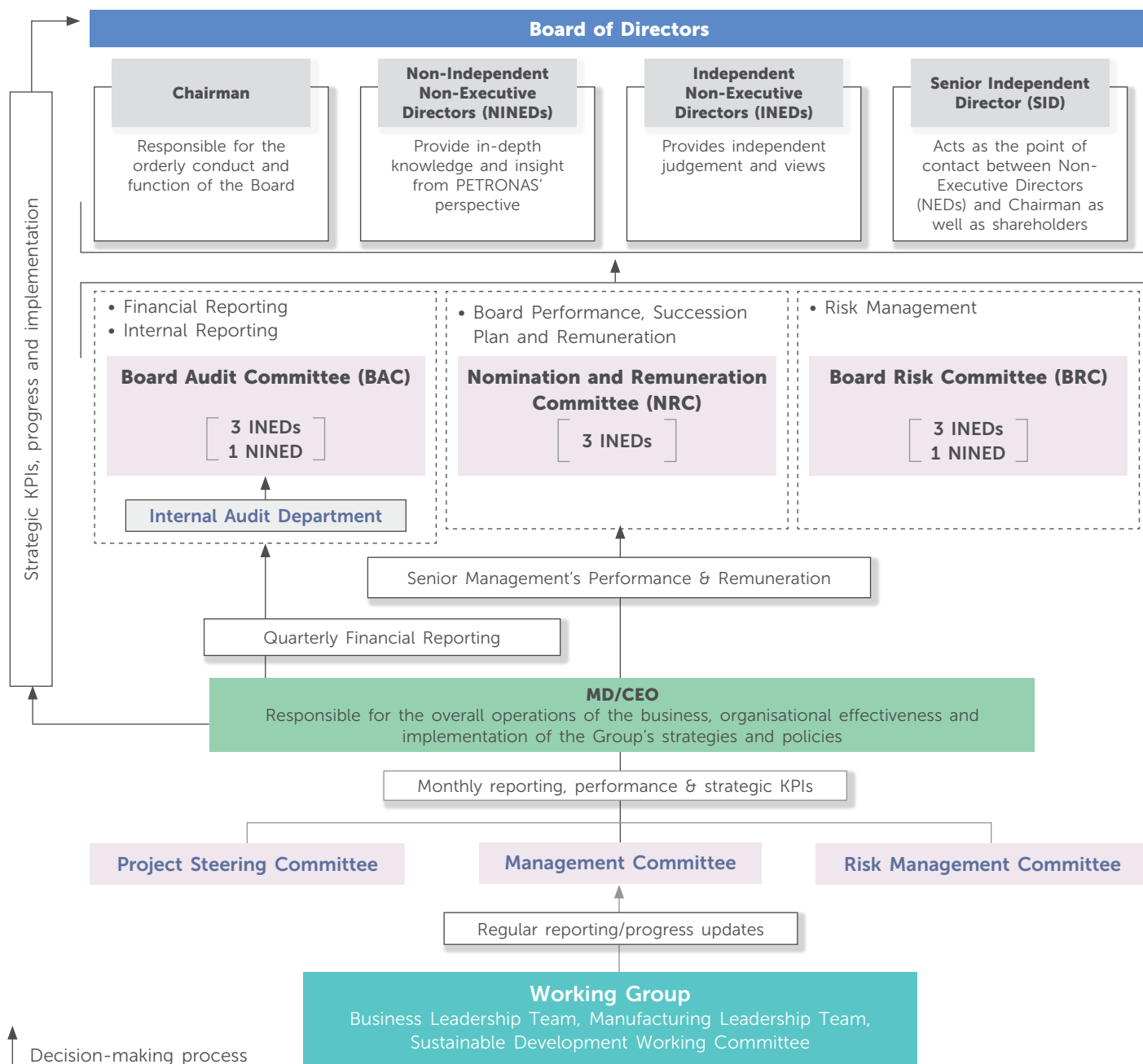
Date	Event	Award
30 November 2019	2018 National Annual Corporate Report Awards (NACRA)	• Integrated Reporting Award (Gold) • Industry Excellence Award for Companies listed on the mainboard for Industrial Products and Services (Gold)
31 July 2019	MSWG-Asean Corporate Governance Awards 2018	Top 3 Industry Excellence Award for Industrial Products and Services Award
19 June 2019	Australasian Reporting Awards (ARA)	Integrated Report Award (Gold)

Our Corporate Governance Structure

We believe that good governance begins at the top. The Board provides guidance and oversight, while Management defines and executes our strategies while managing risks. Success at the Board and Management level at PCG involves setting the right priorities, having the appropriate team members in place, evaluating ourselves, enhancing our knowledge and communicating with our stakeholders.

In discharging its duties and responsibilities, the Board is guided by the principles contained in PCG's Board Charter. The Board Charter states clearly those matters that are reserved for the Board and Management's attention, detailing the issues that have to be dealt with by the Board, Board Committees, individual Directors and Management.
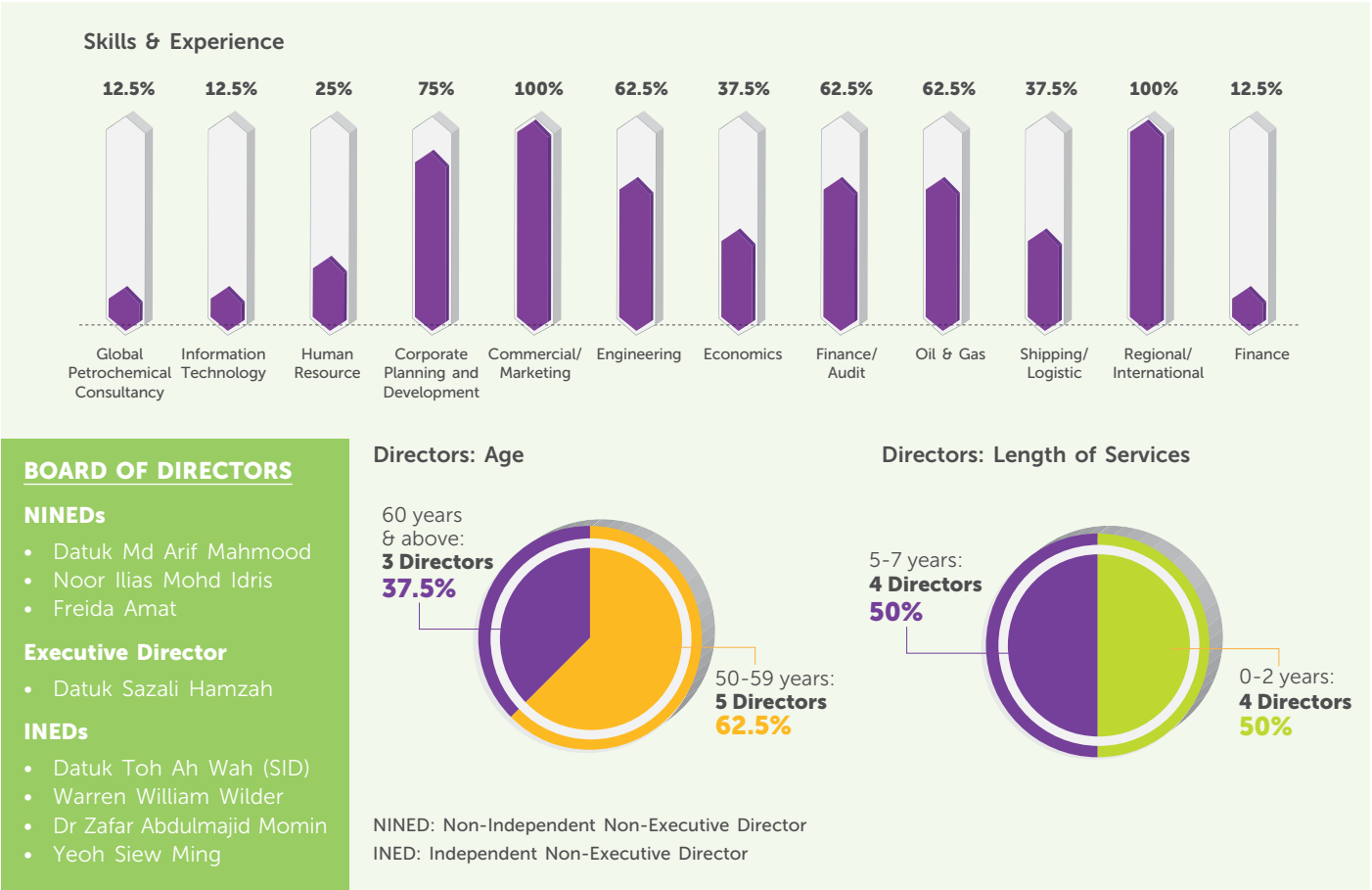
The Board Charter is available on the Company's corporate website, www.petronaschemicals.com, together with the Terms of Reference (TOR) of all the Board Committees.

Board of Directors

Chairman	**Non-Independent Non-Executive Directors (NINEDs)**	**Independent Non-Executive Directors (INEDs)**	**Senior Independent Director (SID)**
Responsible for the orderly conduct and function of the Board	Provide in-depth knowledge and insight from PETRONAS' perspective	Provides independent judgement and views	Acts as the point of contact between Non-Executive Directors (NEDs) and Chairman as well as shareholders

Strategic KPIs, progress and implementation

- Financial Reporting
- Internal Reporting

- Board Performance, Succession Plan and Remuneration

- Risk Management

Board Audit Committee (BAC)

3 INEDs
1 NINED

Internal Audit Department

Nomination and Remuneration Committee (NRC)

3 INEDs

Board Risk Committee (BRC)

3 INEDs
1 NINED

Senior Management's Performance & Remuneration

Quarterly Financial Reporting

MD/CEO
Responsible for the overall operations of the business, organisational effectiveness and implementation of the Group's strategies and policies

Monthly reporting, performance & strategic KPIs

Project Steering Committee

Management Committee

Risk Management Committee

Regular reporting/progress updates

Working Group
Business Leadership Team, Manufacturing Leadership Team, Sustainable Development Working Committee

Decision-making process

CREATING ECONOMIC VALUE

Board Composition and Diversity

We are led by an active, engaged and experienced Board comprising eight highly dedicated individuals with notable careers in a range of fields. Collectively, they bring an appropriate mix of skills, regional and industrial experience, background, gender, ethnicity and nationality to the Board. The Board supports the country's aspiration of 30% female representation at the director level and is ever-vigilant in sourcing for suitably qualified women to strengthen the current membership. During the year under review, 25% of PCG's Board were women, and there were 13 women Directors on the boards of the PCG Group of companies as a whole.

Skills & Experience

12.5%	12.5%	25%	75%	100%	62.5%	37.5%	62.5%	62.5%	37.5%	100%	12.5%
Global Petrochemical Consultancy	Information Technology	Human Resource	Corporate Planning and Development	Commercial/ Marketing	Engineering	Economics	Finance/ Audit	Oil & Gas	Shipping/ Logistic	Regional/ International	Finance

BOARD OF DIRECTORS

NINEDs

- Datuk Md Arif Mahmood
- Noor Ilias Mohd Idris
- Freida Amat

Executive Director

- Datuk Sazali Hamzah

INEDs

- Datuk Toh Ah Wah (SID)
- Warren William Wilder
- Dr Zafar Abdulmajid Momin
- Yeoh Siew Ming

Directors: Age

60 years & above:
3 Directors
37.5%

50-59 years:
5 Directors
62.5%

Directors: Length of Services

5-7 years:
4 Directors
50%

0-2 years:
4 Directors
50%

NINED: Non-Independent Non-Executive Director
INED: Independent Non-Executive Director

Board Appointment Process

The Company maintains a formal and transparent procedure for the appointment of new directors. Nomination of NINEDs is made by PETRONAS, being the majority shareholder of the Company. Search for potential INEDs may also be made through engagement of a professional recruitment firm or recommendations from existing Board members in identifying suitable qualified candidates to fill the vacant positions. In its selection of suitable candidates, the NRC adheres to the guidelines stipulated in the Board Succession Framework and Board Selection Criteria. All potential candidates are first considered by the NRC, taking into account mix of skills, competencies, experience, integrity, personal attributes and time commitment required to effectively discharge his or her role as a director. Diversity in terms of age and gender are also considered during the selection process.

Process flow for appointment of a director

1. Circumstances giving rise to the appointment of Directors
2. The NRC deliberates selection criteria combining competencies and attributes required
3. Search for candidates
4. Assess and shortlist the potential candidates in consultation with the NRC
5. Interview shortlisted candidates/consultation with chairman of the Board
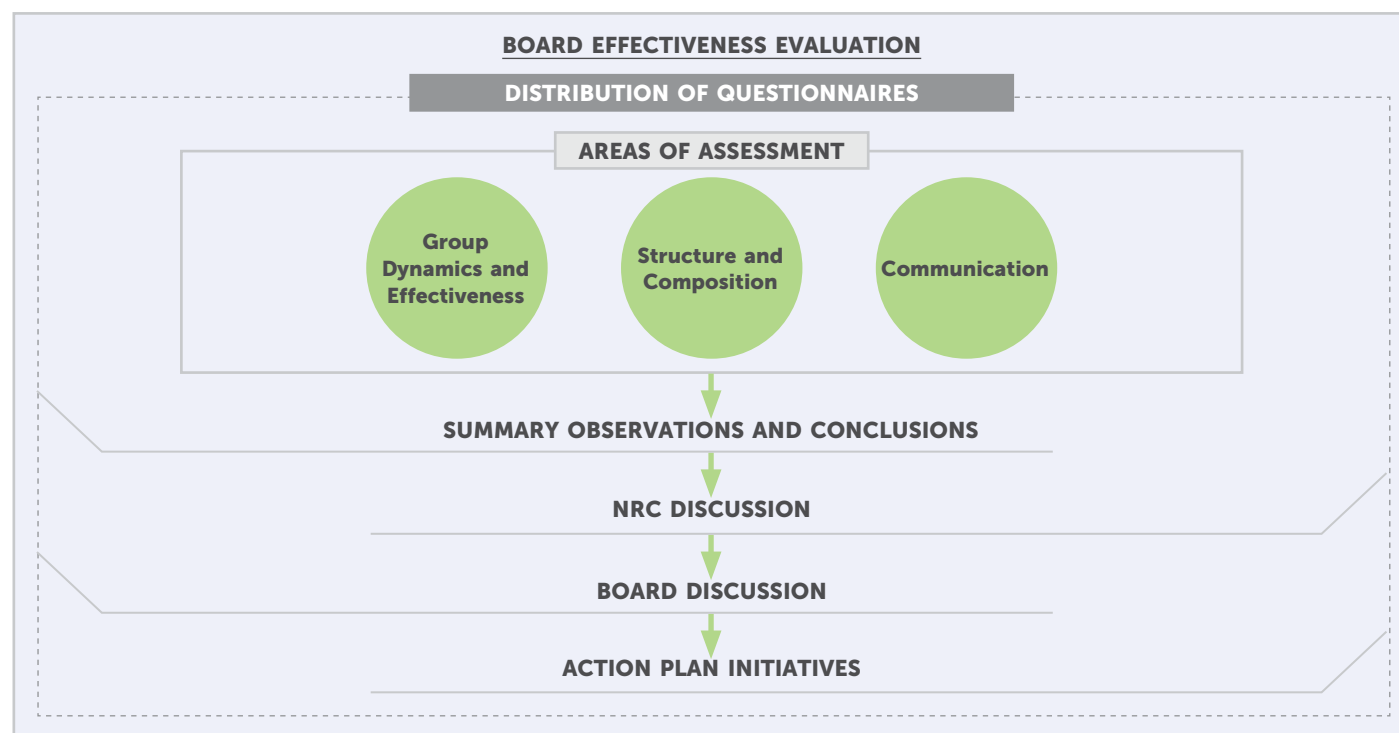6. Deliberation by the NRC on the suitability of the candidate
7. PCG Board's Approval
8. Onboarding Programme
9. Continuous training and annual performance assessment

Board Evaluation & Effectiveness

A Board Effectiveness Evaluation (BEE) is undertaken every year to assess the effectiveness of the Board as a whole, its Committees, the contribution of each Director, and the independence of our Independent Directors. The BEE focuses on maximising the effectiveness and performance of the Board and its Committees in the best interests of the Company. The Board will be engaging the services of an external consultant to perform the BEE exercise every five years beginning 2021.

BOARD EFFECTIVENESS EVALUATION

DISTRIBUTION OF QUESTIONNAIRES

AREAS OF ASSESSMENT

- Group Dynamics and Effectiveness
- Structure and Composition
- Communication

SUMMARY OBSERVATIONS AND CONCLUSIONS

NRC DISCUSSION

BOARD DISCUSSION

ACTION PLAN INITIATIVES

Areas for Board Evaluation

Group Dynamics and Effectiveness
- Overall Board Effectiveness
- Organisation of the Board
- Composition of the Board
- Looking Forward (Succession Planning & Development)
- Communications with Shareholders

Board/Committee Effectiveness
- Board Chairman Evaluation
- MD/CEO Evaluation
- Board Audit Committee
- Nomination and Remuneration Committee
- Board Risk Committee

Director Self/Peer Evaluation

Knowledge and Understanding on
- Role that a Board plays in governance and as Company Director
- Mission and Vision
- Strategic needs and development
- Market
- Critical success factors
- Business risk
- Performance measures
- International businesses
- Financial discussions
- Legal and compliance duties
- Risk management
- Board effectiveness
- Differentiate strategy/policy issues and operational matters

Skills and Experience
- Analytical skills
- Relevant functional insights
- Relevant industry insights

Preparation for Board Meetings
- Time commitment
- Contribution
- Pre-reading of all board papers

Independence
- Ability to speak openly and honestly

Building Relationship
- Board colleagues
- Board and Management
- Display confidence in other Directors' abilities
- Listen attentively to ideas

Professional Development
- On-going training and education

CREATING ECONOMIC VALUE

The Board further acknowledges its role in establishing a corporate culture that encompasses and embraces ethical conduct within the Group. In line with this principle, the Board has adopted the following policies to ensure that the conduct of business and the employees are consistently carried out ethically and with integrity.

Ethics & Integrity

Code of Conduct and Business Ethics: The Group adopts and practices the PETRONAS Code of Conduct and Business Ethics (CoBE). Further details of CoBE are available online at www.petronaschemicals.com.

Anti-Bribery and Corruption Policy: This serves to guide employees on how to deal with improper solicitation, bribery and other corrupt activities and issues that may arise in the course of business.

Whistleblowing Policy: The PETRONAS Whistleblowing Policy provides an avenue for all employees and members of the public to disclose any improper conduct in accordance with the procedures as described under the Policy. There were no cases raised in 2019.

Trading on Insider Information: The Board and principal officers of PCG are prohibited from trading in securities based on price sensitive information and knowledge acquired by virtue of their positions which has not been publicly announced. Notices on the closed period for trading in PCG shares are sent to the Directors and principal officers on a quarterly basis. Trading is, however, permitted if the Directors are not in possession of price-sensitive information during the closed period as defined, and so long as the Directors comply with the procedures set out in Bursa Malaysia's Main Market Listing Requirements (MMLR).

Corporate Liability: PCG is putting in place adequate checks and balances to ensure we do not contravene the recent amendment to the Malaysian Anti-Corruption Commission Act 2009 (MACC Act 2009), which makes a company accountable for any illegal action taken by an employee for the benefit of the company unless the company can demonstrate the presence of adequate procedures to prevent such actions. The corporate liability provision, Section 17A, will come into force on 1 June 2020. A workshop was held on 10 February 2020 to brief the Directors about the new provision and the actions taken to protect PCG.

Risk Management & Value Protection

The Board acknowledges the importance of a sound internal control system and robust risk management for good corporate governance to safeguard our shareholders' investment as well as the Group's assets. It further affirms its overall responsibility for reviewing the adequacy and integrity of the Group's risk management and internal control systems. The Group has established a process for identifying, evaluating, treating, monitoring and managing risks that may materially affect the achievement of our corporate objectives. These risks are reported to the Board on quarterly basis.

We have the following in place:

1. A robust risk management framework for consistent approach in managing risk.
2. A risk policy, anchoring on PCG's commitment to become a risk resilient organisation with stronger risk management culture and ownership.
3. Risk oversight structure at Board and Management levels to ensure risk management is integrated into key business activities. The establishment of a dedicated Board Risk Committee, comprising a majority of independent directors, reflects increased emphasis on deliberating the risks of high-impact business decisions.
4. Risk assessments for all Board and Management decision papers to ensure that decision makers make fully informed decisions.
5. Strong inculcation of risk management culture for an effective risk management.
6. An independent internal audit function to provide independent assessment and objective assurance on the adequacy, efficiency and effectiveness of the Group's internal controls.

Top 3 Key Risks:

1. Health, Safety and Environmental Risk
2. Strategic Investment Risk
3. Project Risk

GFR *For more information on PCG's Corporate Governance, please refer to our Governance and Financial Report*

INNOVATION & PRODUCT STEWARDSHIP

Our marketplace is constantly evolving as end-users demand increasingly more technologically sophisticated yet environmentally-friendly products, while regulators impose more and more stringent requirements to ensure products meet HSE standards. In response to social and environmental imperatives, there has been a discernible shift in demand from customers for more sustainable solutions that support a low-carbon economy. In such a market, there is no room for complacency. Chemical players need to be able to keep up with the rapidly changing face of the industry.

Our Approach

PCG's innovation excellence is an aspiration to create product and application solutions that fulfil the changing and evolving needs of our customers and society. We systematically conduct new product development programmes and work closely with our customers to co-create application solutions that help them overcome pain points in conducting their business. Our research focus aim to address trends and needs to ensure a sustainable future for the business, society and environment that we operate in.

We have identified opportunities to develop products that will deliver environmental or social benefits in line with the SDGs and the World Business Council for Sustainable Development's Chemical Sector SDG Roadmap. As we expand into specialty chemicals, we are mindful of the need to assess the different risks that come with these new products. We also continue to adapt our product stewardship programmes to support the safe and sustainable development of these new products and applications.

Product Stewardship

Since becoming a signatory to the Responsible Care® Global Charter in 2014, we have embraced its guiding principles on product stewardship and embedded them in our innovation management process in order to develop products that are safe and sustainable throughout their life cycle, i.e. from the research and development (R&D) stage, throughout production, distribution and storage, to application, consumption and final disposal.

We regularly and systematically conduct risk assessments on our products to ascertain their risk category and identify suitable risk mitigation measures. This allows us to communicate accurate and sufficient information to our customers and other stakeholders to enable them to maximise benefit from our products with minimum impact on health and the environment.

Our Product Stewardship focuses on the following priority areas:

1 Compliance with all applicable and relevant regulations and legislations that affect the chemicals that we produce, including the European Union (EU)'s Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

2 Assessment and characterisation of all our product risks, including life cycle assessments in order to minimise the potential impact derived from our products to the environment.

3 Ensuring customers are equipped with timely and accurate product safety information to conduct their business safely, in compliance with regulatory requirements and international standards.

4 Undertaking a systematic approach in managing the production, transport and storage of chemicals deemed hazardous.

5 Dissemination of product safety information – Safety Data Sheets (SDS), labels, product safety summaries and declarations – to ensure our products are used safely throughout the supply chain.

6 Educating customers, suppliers and distributors on product hazards through regular engagement and Product Stewardship programmes.

CREATING ECONOMIC VALUE

Product Development

In 2019, we developed PETRONAS Aireblue™, an internationally certified product solution that ensures more environmentally-friendly vehicular emissions by converting harmful nitrogen oxides (NO_x) into harmless nitrogen and water. We also developed a suite of three high-performance cleaning chemicals for upstream oil and gas drilling activities. These products – comprising PETRONAS PowerClean™ TS301, PETRONAS PowerClean™ RS301 and PETRONAS PowerClean™ WS601 – enable effective degreasing and rapid cleaning of synthetic based mud (SBM), oil or grease contaminated tanks, rig surfaces and well-bore surfaces respectively, thereby reducing the consumption of water and energy for these activities.

Technical Recommendations

With the aim of being a solution partner for the industry, we conducted 218 high impact technical engagements and seminars for our customers during the year. In doing so, we were able to provide 183 technical recommendations that allowed them to maximise the performance and benefits derived from the application and use of our products.

Research and Development

In 2019, we continued to mature the development of the conversion process for second-generation palm biomass into chemicals that can provide a more sustainable and cost competitive production route. In addition, we also embarked on three new research projects to develop natural based high performance specialty chemicals for personal care application.

Co-creation with Customers

Our application technologists work closely with customers to co-create product application solutions that unlock value by meeting their business requirements. These solutions allow our customers to push the boundaries of their product performance and application envelop, and to further grow their business.

During the year, we delivered 13 high-impact solutions through customer co-creation for customers in the automotive, latex processing, paper and wood coating, flexible packaging and other industries. Some of these included:

1. High-temperature stability silicone oil emulsion formulation in the paper processing industry to enhance the glossy effect of their product

2. Solution to enhance surface smoothness during rubber stripping

3. Solutions for polymer customers on a superior resin that resulted in a three-fold reduction in rate of rejection of their product during downstream automated capping process

4. An improved formulation for flexible packaging that improves product performance in high-speed stretch wrap applications

Food Contact Certification

It is crucial for materials in contact with food to comply with related regulations in ensuring the safe use of our products. The two most widely recognised regulatory authorities are the United States' Food and Drug Administration (US FDA) and the European Union Commission for Food Contact Material (FCM). To date, we have achieved US FDA certification for 13 polymer grades and EU 10/2011 Food Contact Material compliance for 12 polymer grades.

Food contact certification	US FDA (Federal Regulations USFDA 21 CFR 177.1520 CFR 178.2010)	EU Commission Regulation for Food Contact (EU Commission Regulation 10/2011)
Certified polymer product grades	• LDPE (5 grades) • LLDPE (5 grades) • HDPE (3 grades)	• LDPE (6 grades) • LLDPE (3 grades) • HDPE (3 grades)

Halal Certification

In order to maintain and grow our business in halal markets, we ensure that our products are certified halal in accordance with Malaysian Standards (MS) 1500:2009 and MS 2200-1:2008. This serves to enhance our brand value as a preferred chemical company. Beyond operations, we also help to shape the halal packaging industry in Malaysia by sharing our experiences with industry representatives and stakeholders. To date, a total of 74 PCG product grades have been certified halal.

Regulatory compliance assurance

An audit conducted by the Ministry of International Trade & Industry (MITI) in February 2019 reaffirmed that our Internal Compliance Programme fulfils the requirements of the Strategic Trade Act.

Product Safety Communication

We manage Safety Data Sheet (SDS) and labels through an efficient SAP system which customers and the public can access via https://sds.petronas.com.my.

We also responded to more than 400 requests from customers seeking declarations, certifications and advice regarding the manufacture and application of our products. Our prompt response and collaboration contributed to their seamless operations and fulfilment of regulatory as well as downstream customer requirements.

Product Stewardship Seminars

In 2019, we conducted eight product stewardship seminars for our customers and supply chain partners, as compared to six in 2018. Through the seminars, we reached 368 people in four countries who directly handle our products.

Product – **Polymer** Venue – Kuala Lumpur	**60** Participants	Product – **Methanol** Venue – Jakarta	**62** Participants
Product – **Polymer** Venue – Johor Bahru	**26** Participants	Product – **Polymer** Venue – Jakarta	**42** Participants
Product – **Polymer** Venue – Penang	**33** Participants	Product – **Methanol** Venue – Manila	**57** Participants
Product – **Ammonia** Venue – Gurun	**27** Participants	Product – **Olefins and Derivatives** Venue – Singapore	**61** Participants

Global Product Strategy (GPS) Safety Summaries

We voluntarily develop and publish Global Product Strategy (GPS) Safety Summaries at the International Council of Chemical Associations (ICCA) to state the hazards and risk mitigation of our chemical products in a transparent and easy to understand manner. To date, we have published 23 GPS Safety Summaries at the ICCA portal including four in 2019.

Indicator	Target	Results
Number of new products	2	5
Number of co-creations	15	13
Number of technical solutions	100	183
Number of product stewardship engagements	5	8

CREATING ECONOMIC VALUE

CUSTOMER RELATIONSHIP MANAGEMENT

Markets are becoming increasingly more competitive with the entrance of more players, together with improved communication and ease of transport. Customers determine how well a company performs commercially, hence, also financially. Having good customer relationships help to sustain a business, especially where competition is intense, or when supply exceeds demand, as was the case in the global chemicals industry in 2019.

Our Approach

PCG fully appreciates the importance of customer relationship management, and adopts the approach of looking through the customer's lens in order to understand our customers and their needs, hence establishing relationships that go beyond sales. We recognise that customer relationship management is critical to our business sustainability and have made it integral to focus our efforts to achieve Commercial Excellence.

We place customers at the heart of everything we do, anchoring our business on meeting their needs. We invest in building strong partnerships with them as we create value together. Our relationships are nurtured through constant engagement, including with our senior management; delivering quality products in a timely manner; and partnering our customers to co-create innovative applications to suit their specific needs.

Performance and Key Initiatives

Customer Relationship Management (CRM) Application

We have introduced a new CRM application under our Sales Force Automation system. Upon full implementation, it will provide our sales team with a 360° view of our customers profile, including their order and delivery status, payments and credit balance, background and engagement history. It also provides comprehensive data on products, from their properties and functions to pricing and frequently asked questions, enabling the team to better manage our customers' expectations.

Customer Engagement and Dialogue

Our top management continued to conduct strategic visits to customers in the spirit of strengthening business collaborations and in getting continuous feedback for improvement. We have also organised a number of customer appreciation programmes and product stewardship programmes throughout the year to facilitate dialogue and encourage feedback.

Customer Convenience

We continuously strive to enhance our customers convenience as part of our value creation initiatives. This year, we introduced new packaging for products – such as flexibags, intermediate bulk container (IBC) and isotanks – to meet their specific needs. We also replaced wooden pallets with reusable plastic pallets in our polymer plants to reduce wastage.
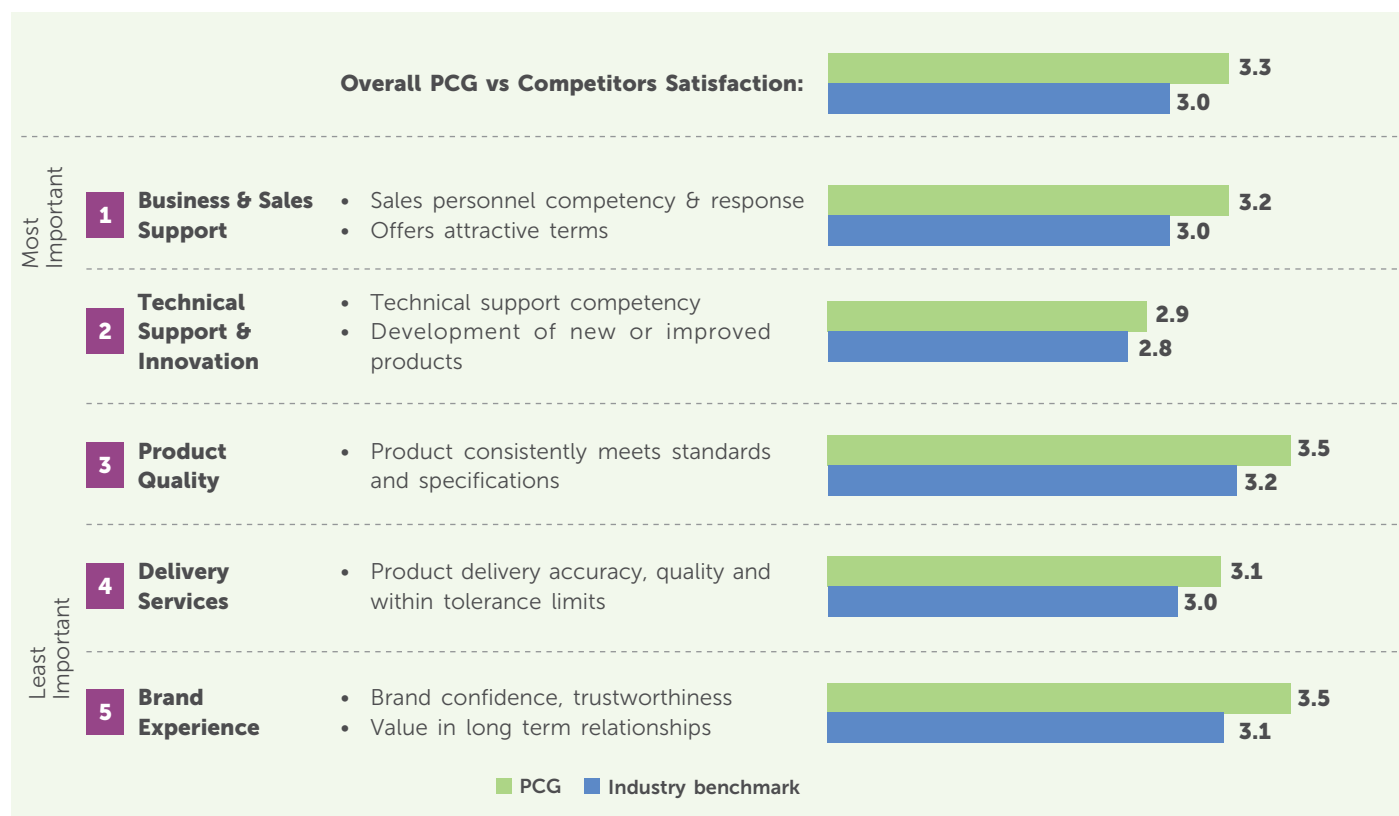
Customer Satisfaction Survey

We conduct a Customer Satisfaction Survey (CSS) every two years to gauge our customers' experience and benchmark our performance against competitors. We highly value their feedback, and take action on their suggestions for improvement. These are tracked as part of our overall performance management.

Results from the last survey, conducted at the end of 2018, were very encouraging, with PCG scoring 3.3 out of 4.0 as compared to 3.0 previously. The survey showed that, in overall, our customers are satisfied with their experience with PCG and value their relationship with the Group. We drew high scores in relationship strength and customer loyalty, indicating trust and affinity to continue working with PCG.

Based on the survey, we have identified the following areas for improvement:

- In Business & Sales Support, we will strive to ensure effective customer engagement, improving responsiveness in attending to customer requests as well as increasing our product and application knowledge.

- In Delivery Services, there are opportunities to improve in the management of unplanned shutdowns, delivery timelines and document accuracy.

Overall PCG vs Competitors Satisfaction:

			PCG	Industry benchmark
		Overall PCG vs Competitors Satisfaction:	3.3	3.0

Most Important

1	**Business & Sales Support**	• Sales personnel competency & response • Offers attractive terms	PCG 3.2 / Industry benchmark 3.0
2	**Technical Support & Innovation**	• Technical support competency • Development of new or improved products	PCG 2.9 / Industry benchmark 2.8
3	**Product Quality**	• Product consistently meets standards and specifications	PCG 3.5 / Industry benchmark 3.2
4	**Delivery Services**	• Product delivery accuracy, quality and within tolerance limits	PCG 3.1 / Industry benchmark 3.0
5	**Brand Experience**	• Brand confidence, trustworthiness • Value in long term relationships	PCG 3.5 / Industry benchmark 3.1

Least Important

■ PCG   ■ Industry benchmark

Six Sigma

Other than the CSS, we use Six Sigma methodology to monitor our customers' experience and product quality on a monthly basis. We achieved a score of 4.7 sigma in 2019 which is within industry average.

Indicator	Target	Results
Order fulfillment reliability (%)	95	97
Customer satisfaction survey (score, out of 4)	3.2	3.3
Total vehicle accident rate	0.25	0.07

CREATING ECONOMIC VALUE

SUPPLY CHAIN MANAGEMENT

Supply chain management is critical for PCG's growth and ability to deliver world-class products and services to our customers. We are committed to maintaining the highest level of integrity in our dealings with suppliers. At the same time, we seek to work with suppliers who share our values of integrity, are committed to fighting bribery and corruption, and contribute to sustainable development.

Our Approach

Ethical Business Practices

We ensure the governance of procurement and compliance process is intact which is guided by PETRONAS Tender and Contracts Administrative Manual. All contractors must meet our robust HSE, technical and CoBE requirement for bidding and contract execution. Adherence to PETRONAS Anti-Bribery and Corruption Manual is also considered in the selection process.

- *Health, Safety and Environment*
  We strive to ensure that contractors comply with our HSE requirements throughout the procurement process. In 2019, we enhanced our HSE requirements to include compliance to the newly implemented Road Transport Operational Guideline (RTOG) for improved and safe supply distribution. We continuously educate contractors on HSE topics through our training and mentoring programmes.

- *Human Rights*
  We are guided by PETRONAS' Contractors Code of Conduct on Human Rights in our vendor selection and tendering process.

Partnering with contractor to assess and improve sustainability performance

The HSE management system of contractors are assessed and rated against our HSE requirements during bidding process. We strive to work with contractors in meeting our expectations, and those unable to fulfil those requirements will be subjected to consequence management. Failing which may result in termination of contract.

Supporting local suppliers

PCG provides support for local suppliers and adopts PETRONAS' Local Content Policies whenever possible.

We continuously support the structured development programmes by Group Procurement in developing local vendors in manufacturing and technical services. By doing so, as at 2019, we have 12 vendors from the PETRONAS Vendor Development Programme to strengthen our services ecosystem as well as to help them to remain resilient and competitive in the industry and local sectors.

In 2019, more than 70% of our total spending on procurement of goods and services are from Malaysian vendors.

Nationality

28%

72%

- Malaysian
- International
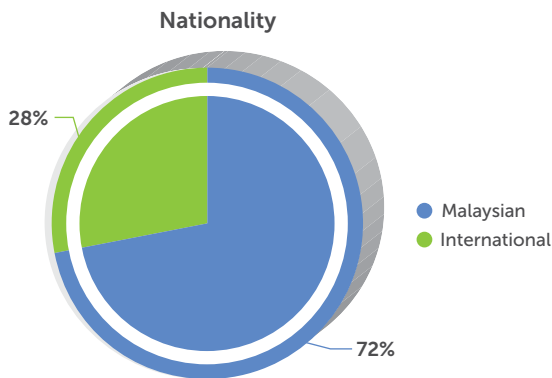
Performance and Key Initiatives

Road Transport Operational Guideline: enhance land transportation safety. (SR) *Please refer to page 42 for detail of the initiative.*	Vendor Development Programme: to nurture local entrepreneurs to overcome the competitive oil and gas industry environment and create a pool of vendors who are able to sustainably generate value.	Embracing digital for effective procurement: PCG is part of PETRONAS Digital Procurement Programme, which harnesses the value of digital tools and technologies which will provide more innovative approach in driving growth through streamlined, efficient and transparent process in the supply chain.

RESPONSIBLE USE OF
ENVIRONMENTAL RESOURCES

The use of natural resources in manufacturing impacts the environment through potential resource depletion; and emissions that could affect plants, animals and local communities. As a responsible organisation, we seek to minimise our environmental footprints through efficient management of natural resources.

GHG EMISSIONS, CLIMATE MITIGATION & ADAPTATION

Among the most critical environmental issues today is global warming, which could lead to extreme weather events with devastating social and environmental impacts. To avert such catastrophes, 197 nations signed an agreement to limit global warming to below 2°C at the UN Conference of Parties (COP) held in Paris in 2015. For its part, Malaysia committed to a 45% reduction in GHG emissions intensity by the year 2030 from 2005 baseline.

Our Approach

PCG fully supports the Government's pledge and believes in playing our role in climate adaptation by operating sustainably. We use natural gas as the primary fuel in our plants as it is readily accessible and cleaner than other fossil fuels. In power generation, natural gas emits about 50% less carbon dioxide (CO_2) than coal, and negligible amounts of sulphur dioxide (SO_x), nitrogen oxides (NO_x), mercury and particulates. Even though natural gas is already the cleaner option, we make every effort to reduce our energy consumption in order to minimise our carbon footprint lowest possible.

We are driven by PETRONAS' Carbon Commitments (PCC), introduced in 2012 and enhanced in 2017, to manage our GHG emissions. Our focus will be on three areas:

Planning & projects: Designing facilities to have zero continuous flaring

Operations: Top energy efficiency performance in our assets

Renewable energy: Developing renewable energy capabilities at our plants

As part of efforts to achieve optimal energy efficiency, we outlined an energy efficiency roadmap in 2014 that sets energy and GHG reduction targets while defining action plans to achieve these goals. In order to increase the efficiency of our energy consumption, we have in place an Energy and Loss Management System (ELMS) which monitors and seeks to reduce the amount of energy consumed in different areas of our operations.

We have, additionally, embarked on the New Plastics Economy (NPE), which will further contribute to reduced GHG emissions as the production of virgin-quality recycled plastic and the conversion of non-recyclable plastic into energy are less energy intensive than the manufacture of new plastic, and the creation of energy from conventional sources.

Performance and Key Initiatives

Optimise excess air for reformer burner

We optimised the amount of excess air used for firing in the primary reformer burner at ASEAN Bintulu Fertilizer Sdn Bhd, thus minimising energy loss via the flue gas exhaust. This also ensures complete combustion during firing, which significantly reduces the emission of GHGs as well as NO_x and SO_x.

Reuse waste gas as fuel to primary steam reformer

The ELMS team reinstated and restarted a fuel gas ejector to capture waste gas and use it as fuel in the primary steam reformer in PC Methanol Sdn Bhd. This resulted in the reduction in natural gas consumption with annual savings of 337,895 giga joules (GJ) of energy – enough to power 33,000 Malaysian homes every year.

Load reduction for electricity saving

PC Ammonia Sdn Bhd has managed to reduce the electricity consumption of a compressor which normally operates at 75% load. The initiative has achieved 50% reduction in compressor load, equivalent to GHG savings of 1,241 tonnes of CO_2 equivalent (CO_2e) annually or 260 passenger vehicles driven for one year.

RESPONSIBLE USE OF ENVIRONMENTAL RESOURCES
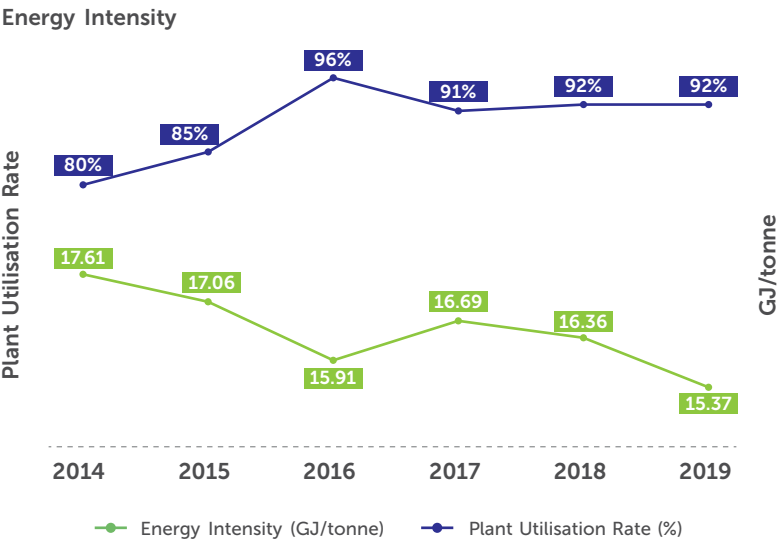
Energy Intensity

As a result of continuous efforts to minimise our energy consumption, we managed to further lower our energy intensity from 16.36 GJ per tonne of production (GJ/tonne) in 2018 to 15.37 GJ/tonne in 2019. This is 13% lower than our baseline of 17.61 GJ/tonne in 2014, enabling us to meet our target of reducing our baseline energy intensity by 10% by 2020 a year early.

GHG Emissions and Intensity
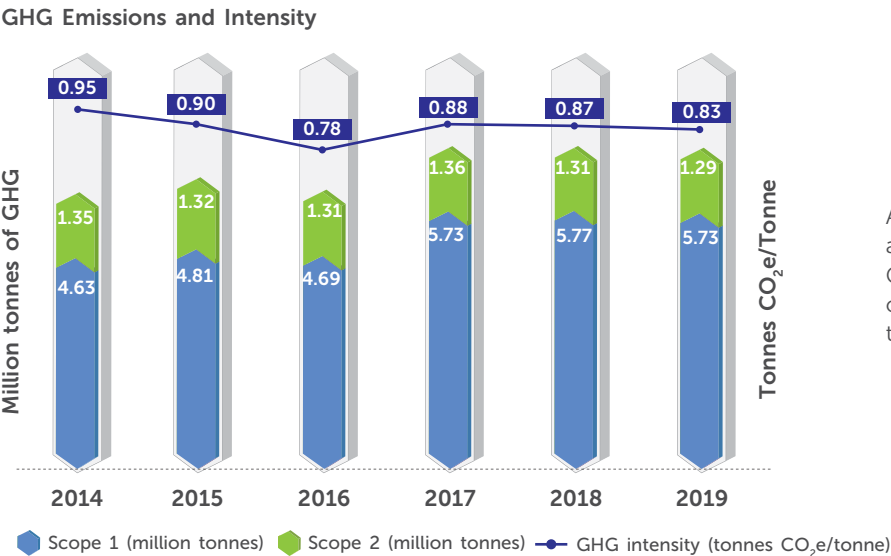
Along with intensified energy efficiency initiatives and lower energy consumption at our plants, our GHG emissions intensity dropped from 0.87 tonne of CO_2e per tonne of production (tonnes CO_2e/tonne) in 2018 to 0.83 tonne CO_2e/tonne.
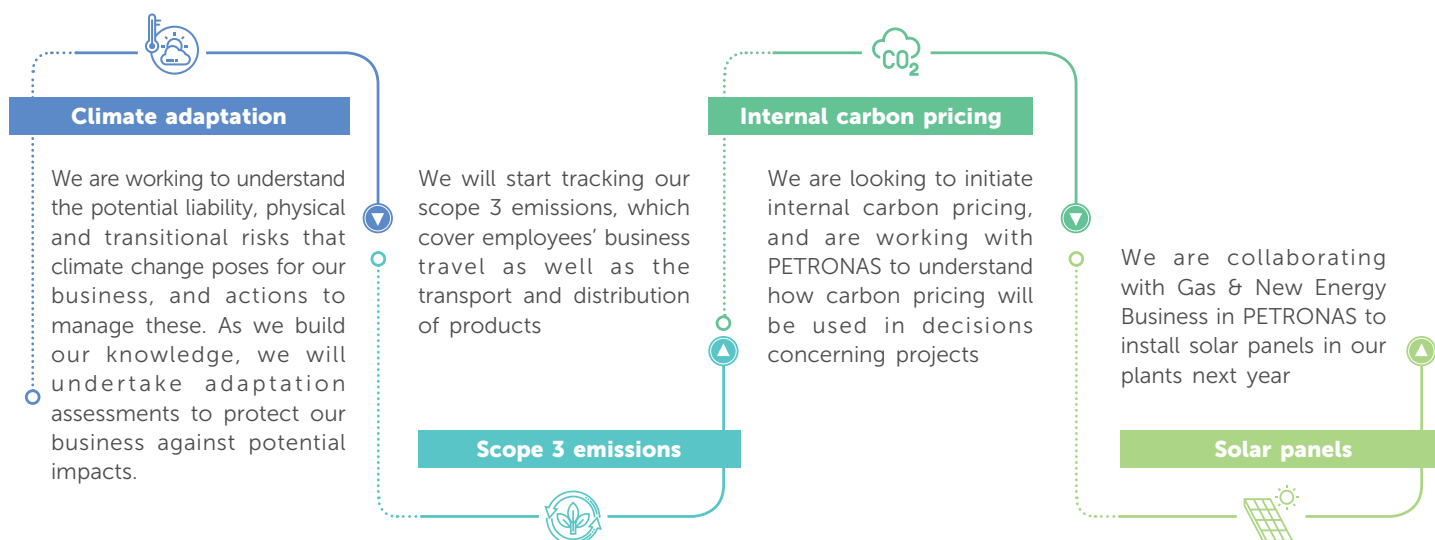
We have revised our GHG accounting and reporting to align with the change in values of Global Warming Potentials according to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change and consistent with PETRONAS Technical Standards on GHG Monitoring, Reporting and Verification. The changes have been restated in our GHG emissions values in this year's report.

Key:
Scope 1: Emissions from assets owned or controlled by PCG
Scope 2: Emissions from the generation of electricity and steam purchased by PCG

Indicator	Target	Results
Energy intensity reduction, from baseline year 2014 (%)	10 (by 2020)	13
GHG emmissions (million tonnes)	≤6.92 (by 2024)	7.02

Looking Forward

We strive constantly to enhance our energy efficiency thus reducing our GHG emissions and are actively looking for more ways to further reduce our carbon footprint. Going forward, we have outlined the following initiatives to contribute more effectively to a low-carbon economy:

Climate adaptation

We are working to understand the potential liability, physical and transitional risks that climate change poses for our business, and actions to manage these. As we build our knowledge, we will undertake adaptation assessments to protect our business against potential impacts.

Scope 3 emissions

We will start tracking our scope 3 emissions, which cover employees' business travel as well as the transport and distribution of products

Internal carbon pricing

We are looking to initiate internal carbon pricing, and are working with PETRONAS to understand how carbon pricing will be used in decisions concerning projects

Solar panels

We are collaborating with Gas & New Energy Business in PETRONAS to install solar panels in our plants next year

Together with PETRONAS, we have set a new GHG reduction target for the year 2024, capping our Scopes 1 and 2 emissions at 6.92 million tonnes of CO_2e. This is equivalent to a total reduction of 100,000 tonnes CO_2e in the five-year period.

RESPONSIBLE USE OF ENVIRONMENTAL RESOURCES

ENVIRONMENTAL STEWARDSHIP THROUGH OUR OPERATIONS

Other than GHGs, manufacturing processes emit air and water pollutants which are regulated by the government. In Malaysia, the Government has passed the Environment Quality Act 1974 and various other regulations that come under it. As environmental degradation is a growing issue, it is important to ensure our operations adhere to existing regulations in order to protect fragile ecosystems and the biodiversity they contain.

Our Approach

We have in place a comprehensive Health, Safety and Environment (HSE) Policy and Management Systems which guides our operations, ensuring emissions from our plants do not pollute surrounding areas. This Policy makes reference to various PETRONAS Technical Standards and PETRONAS' Mandatory Control Framework (MCF). Supporting this Policy are other frameworks that focus on best environmental practices. They include the following:

Water Consumption and Effluents

We adhere to PETRONAS' Guidelines on Water Practices (WAPS) to minimise the impact of our discharge on surrounding water bodies. WAPS covers the following systems: cooling water, ion exchange, reverse osmosis & electrode ionisation, steam generator system, condensate, wastewater discharge, collection & treatment and sludge handling.

We measure the chemical oxygen demand (COD) of our wastewater, which indicates how much oxidisable material it contains. The higher the COD, the lower the dissolved oxygen level in a water body, which is harmful to living organisms. All water discharged by PCG is channelled into rivers and the sea, and not to enclosed water bodies.

Waste Management

We seek to reduce as far as possible the volume of waste generated from our operations while managing any waste produced efficiently with minimal impact on surrounding communities and the environment. We promote the 3Rs in our facilities through an enhanced Waste Management Plan.

All waste is inventorised and stored safely in dedicated areas before being transported to licensed facilities for appropriate treatment. Most of the waste is recycled as fuel, solvents or lubricants. We also extract precious metals from spent catalyst to reduce waste.

During turnarounds, we generate a different set of waste from normal operations. To manage this responsibly, we have developed a comprehensive turnaround waste management plan that encompasses the identification, segregation and minimisation of waste using the 3Rs of reduce, reuse and recycle.

Our target is to increase our 3R rate to 82% (equivalent to 2,500MT of waste) from our average rate of 80%, by 2024.

Air Emissions

We monitor and manage our air emissions via a Continuous Emission Monitoring System (CEMS) and Leak Detection and Repair (LDAR) programme. CEMS allows us to obtain real time data and take prompt action should any abnormal reading be observed while LDAR is a proactive monitoring programme of potential leak source within our operating facilities to immediately address and reduce leakages.

Biodiversity

Through our flagship CSR programme ecoCare, we protect the biodiversity of the mangrove ecosystem in Terengganu. In 2019, we have planted more than 6,300 mangrove seedlings and trees in the state's coastal area.

(SR) *For more information, please refer to the Community Engagement section of this report on page 53.*

In year 2019, we sustained our good performance in terms of environmental compliance. No non-compliance notice were issued by the regulators to any of our facilities throughout the reporting year.
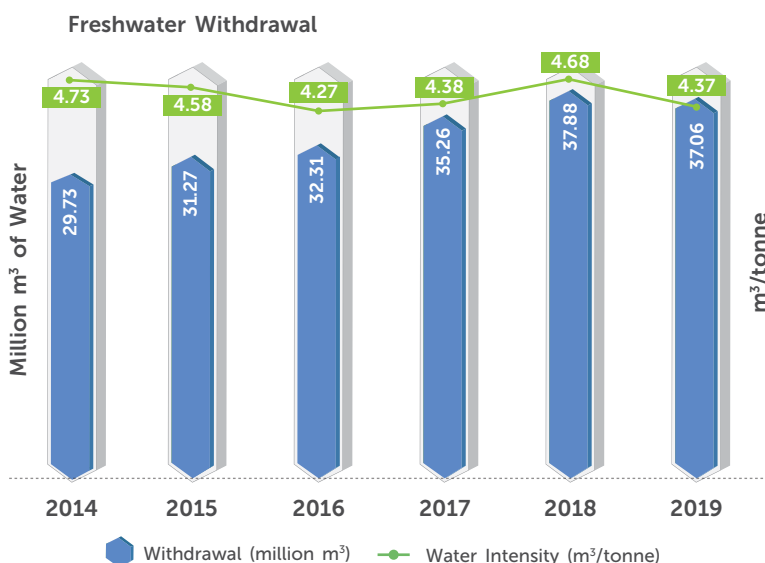
Performance and Key Initiatives
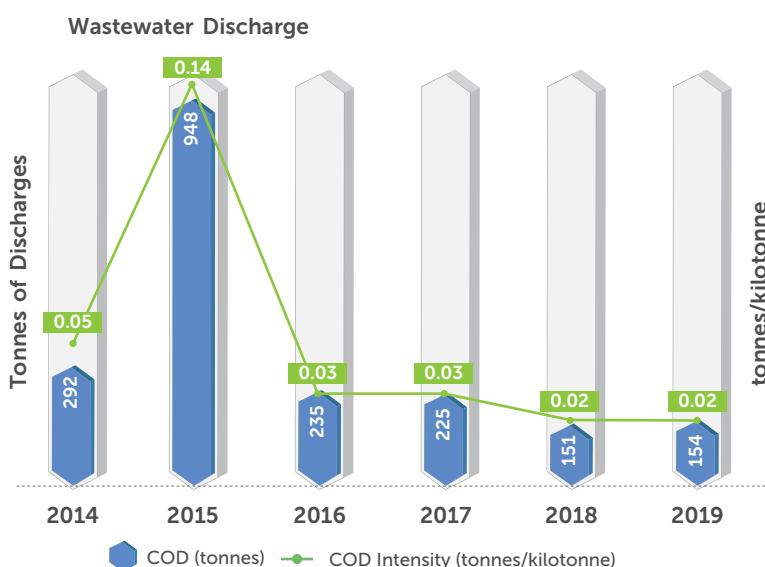
Water Quality

- In 2019, we launched a special task force to conduct a water quality study in collaboration with Universiti Putra Malaysia (UPM). This was inspired by a Management HSE walkabout at one of our facilities when it was observed that there was a risk of pellets entering the monsoon drain. The project achieved the desired end goal of zero risk of environmental spills, leading to PC LDPE winning a Gold Award at the Malaysia Productivity Corporation Team Excellence Convention 2019.

- We are also collaborating with our PETRONAS Downstream Business in a water assimilative capacity study to better understand the conditions required for healthy aquatic life in order to enhance our wastewater discharge quality beyond regulatory compliance.

Water Consumption

- We are in the process of setting water reduction targets for our operations. As a preliminary, we are conducting water audits in accordance to WAPS to assess current consumption patterns. In 2019, three audits were completed. Another two will be conducted in 2020, with five more in the years to follow.
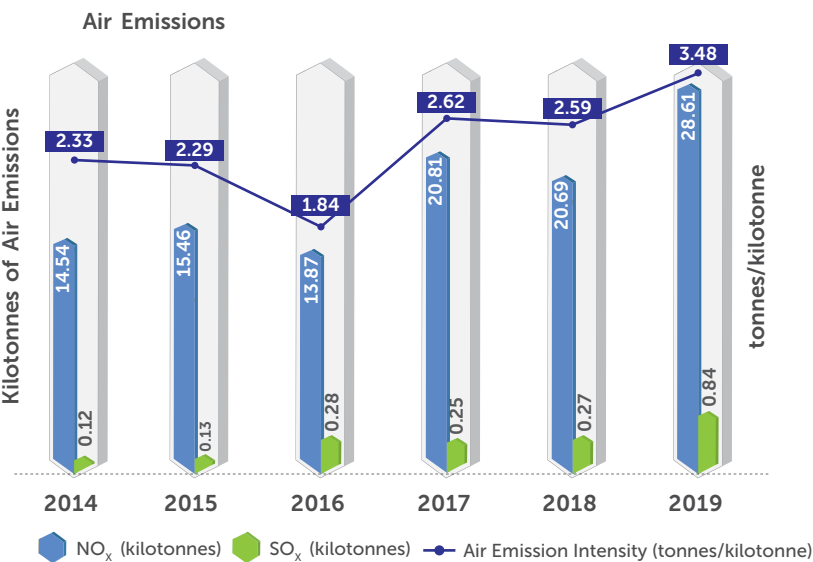
Freshwater Withdrawal

Year	2014	2015	2016	2017	2018	2019
Withdrawal (million m³)	29.73	31.27	32.31	35.26	37.88	37.06
Water Intensity (m³/tonne)	4.73	4.58	4.27	4.38	4.68	4.37

Withdrawal (million m³) — Water Intensity (m³/tonne)

We recorded a total water withdrawal of 37.06m^3 in 2019, as compared to 37.88m^3 in 2018, marking a 2% reduction. Our water intensity also dropped year on year, from 4.68m^3 per tonne of production (m^3/tonne) in 2018 to 4.37m^3/tonne of production as a result of intensified WAPS initiatives.

Wastewater Discharge

Year	2014	2015	2016	2017	2018	2019
COD (tonnes)	292	948	235	225	151	154
COD Intensity (tonnes/kilotonne)	0.05	0.14	0.03	0.03	0.02	0.02

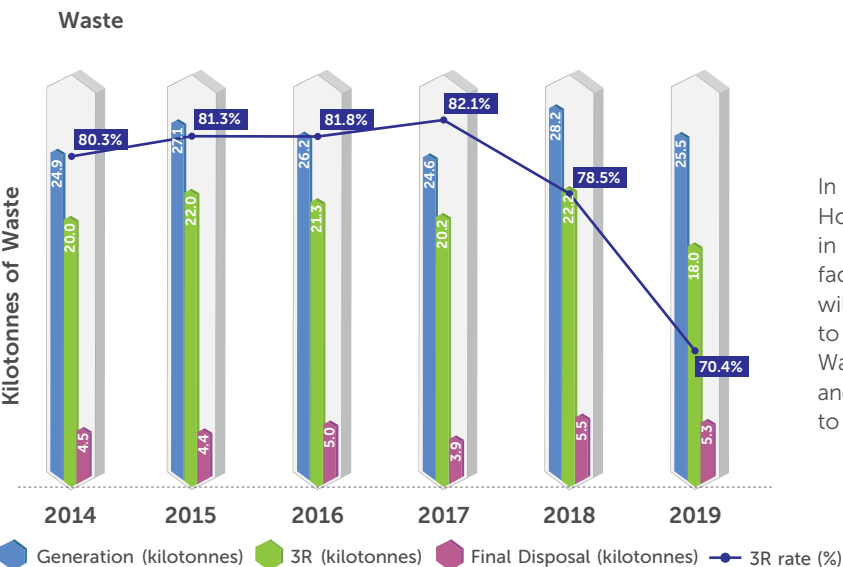COD (tonnes) — COD Intensity (tonnes/kilotonne)

In 2019, our COD slightly increased to 154 tonnes, from 151 tonnes in 2018 while maintaining our COD intensity. This was contributed by our facilities planned shutdowns in which wastewater discharges increased as part of maintenance preparation.
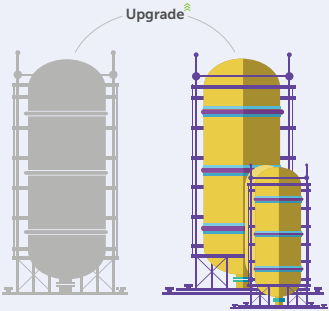
RESPONSIBLE USE OF ENVIRONMENTAL RESOURCES

Air Emissions

Kilotonnes of Air Emissions / **tonnes/kilotonne**

Year	NOx (kilotonnes)	SOx (kilotonnes)	Air Emission Intensity (tonnes/kilotonne)
2014	14.54	0.12	2.33
2015	15.46	0.13	2.29
2016	13.87	0.28	1.84
2017	20.81	0.25	2.62
2018	20.69	0.27	2.59
2019	28.61	0.84	3.48

- NOx (kilotonnes)
- SOx (kilotonnes)
- Air Emission Intensity (tonnes/kilotonne)

We recorded an air emissions intensity of 3.48 tonnes of pollutants (NO$_x$ and SO$_x$) per kilotonne of production (tonnes/kilotonne) compared to 2.59 tonnes/kilotonne in 2018. This was mainly due to temporary increase of flaring activity at one of our facilities.

Waste

Kilotonnes of Waste

Year	Generation (kilotonnes)	3R (kilotonnes)	Final Disposal (kilotonnes)	3R rate (%)
2014	24.9	20.0	4.5	80.3%
2015	27.1	22.0	4.4	81.3%
2016	26.2	21.3	5.0	81.8%
2017	24.6	20.2	3.9	82.1%
2018	28.2	22.2	5.5	78.5%
2019	25.5	18.0	5.3	70.4%

- Generation (kilotonnes)
- 3R (kilotonnes)
- Final Disposal (kilotonnes)
- 3R rate (%)

In 2019, we recorded a 10% reduction in waste generation. However, the recycling rate also dropped, from 78.5% in 2018 to 70.4% due to the planned shutdown of our facilities with high recycling rates. Moving forward, we will intensify our 3R initiatives and we have set target to increase our waste recycling rate to 82% by 2024. Waste generation and treatment/disposal data are tracked and reported internally, as well as communicated regularly to the Department of Environment.

Upgrade

Waste Heat Boiler Upgrade

In the past, PC Ammonia Sdn Bhd would undergo a total plant shutdown every 18 months due to high temperature and pressure drops in the boiler outlet caused by metal dusting. Following the installation of a new waste heat boiler that can operate longer, the need for shutdowns has reduced the generation of scheduled waste from carbon formation, as well as GHG emissions from natural gas venting and nitrogen purging, while enhancing fuel gas savings from fewer start-ups.

Indicator	Target	Results
All manufacturing sites to meet their individual waste management goals (%)	100 (by 2024)	On-going
Increase 3R rate (%)	82 (by 2024)	70

EMPOWERING OUR
WORKFORCE AND SOCIETY

We entrench our social citizenry through actions that promote the well-being of our employees as well as the community. Our employees are fundamental to us as they hold the key to our ability in achieving our goals and vision. At the same time, we too carry out our business within local communities and leveraged on established and strong communication in the need to maintain our license to operate. In adding value to our employees and communities, we empower them with knowledge, skills and financial support to help them unlock their full potential.

HEALTH & SAFETY

Our business has been built, and continues to thrive, on a foundation of robust Health & Safety policies and procedures. This foundation safeguards our most important resources, namely our people and assets, and underpins our sustainability, ensuring we deliver on promises to our customers while building the trust of our business partners, suppliers, local communities, investors and the government. It is critical to keep monitoring and enhancing our safety performance in order to maintain our business growth and the support of our valued stakeholders.

Our Approach

Health & Safety is given top priority at PCG, and is driven by our leadership. Under their guidance, we take every possible precaution to eliminate the risk of work-related injuries, thus protecting the well-being of our people. We are guided in our efforts by our Health, Safety and Environment (HSE) Policy, through which we also seek to nurture a strong safety mindset. The idea is to reinforce a sense of responsibility among our employees to adhere to proper procedures thus safeguard their own safety as well as the safety of others.

Our approach to Health & Safety is based on the 3Cs of Culture, Compliance and Competency:

Culture

Reinforce the role of leadership and personal accountability at all levels

We seek to nurture a Generative HSE Culture in which everyone takes responsibility for their own safety and the safety of others.

Compliance

Drive compliance on HSE and process safety

Compliance to all HSE regulations by everyone is crucial to ensure safe operations in our operating units (OPUs) with zero incident at the workplace.

Competency

Enhance competencies in process safety & land transportation

We work continuously with our transportation vendors to ensure a high level of safety along our logistics value chain. We ensure reliable and safe product delivery to customers via comprehensive RTOG. We subject drivers and vehicles to rigorous tests and inspections to ensure they meet all expected vehicular and people requirements.

EMPOWERING OUR WORKFORCE AND SOCIETY

Performance and Key Initiatives

Leadership Conversations on HSE & Process Safety

Each PCG leader conducts at least one Leadership Conversation a year with small groups of no more than 12 people. The focus of these conversations are lessons learnt from HSE incidents. Feedback from the group is used to plug gaps in our safety framework.

Rakan HSE

Rakan HSE, introduced by PETRONAS Group Health, Safety, Security & Environment (GHSSE), enhances the supervisory and communication skills of front-liners including contractors helping them to reinforce critical HSE controls. Various Rakan HSE programmes were organised throughout 2019 such as briefings on Working at Height and Confined Space Entrants. Focus was also on improving the process of inspecting mechanical tools and equipment.

OE R2

As part of our journey towards Operational Excellence by 2020 (OE R2), we have undertaken to improve HSE and process safety in our operating units via enhancement of the relevant job descriptions, roles and responsibilities, re-assessment of value-added tasks, and improvement of team-based networks as well as organisational design.

Balance of Consequences (BoC)

BoC was introduced to accelerate the adoption of a culture of compliance by recognising and rewarding safe behaviours in addition to taking punitive action on HSE non-compliance.

Engineering Management of Change (EMOC)

We manage the risks associated with change to ensure the risks posed to our people, environment, assets and reputation are as low as reasonably practicable (ALARP). To ensure compliance and effective implementation, we are standardising our Engineering Management of Change (EMOC) which encompasses the alignment of requirements, work processes, procedures and checklists. Following the standardisation effort, we seek to digitalise EMOC across our operating units.

Contractors HSE Mentorship Programme

Through this programme, each operating unit is to mentor at least one active contractor to enhance our contractors' HSE Management capabilities, thus reducing HSE incidents caused by their employees. The programme is reviewed annually under the Occupational Safety & Health (OSH) Effectiveness Audit.

Transport Governance Framework

Under transport safety governance, we are establishing RTOG as one of the key initiatives for enhancement of land transportation safety programme. RTOG contains structured work process, tools, programmes and key performance indicators for standardisation of all contracted transporters to deliver high performance safety results across their organisation.
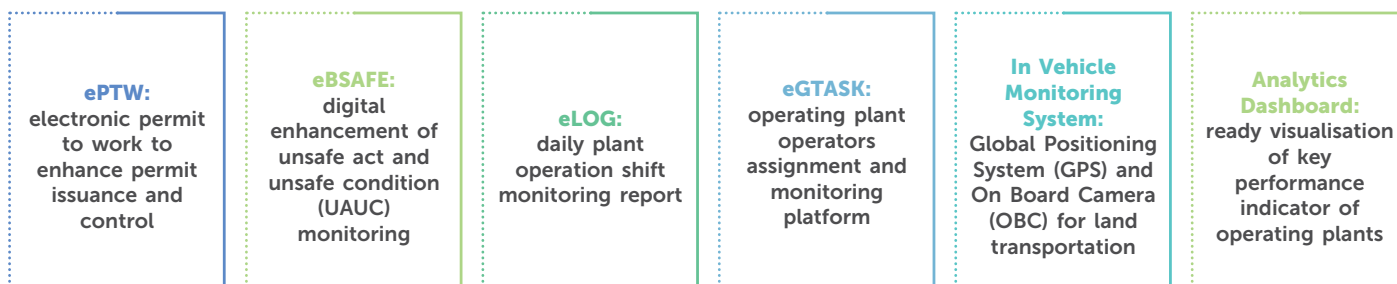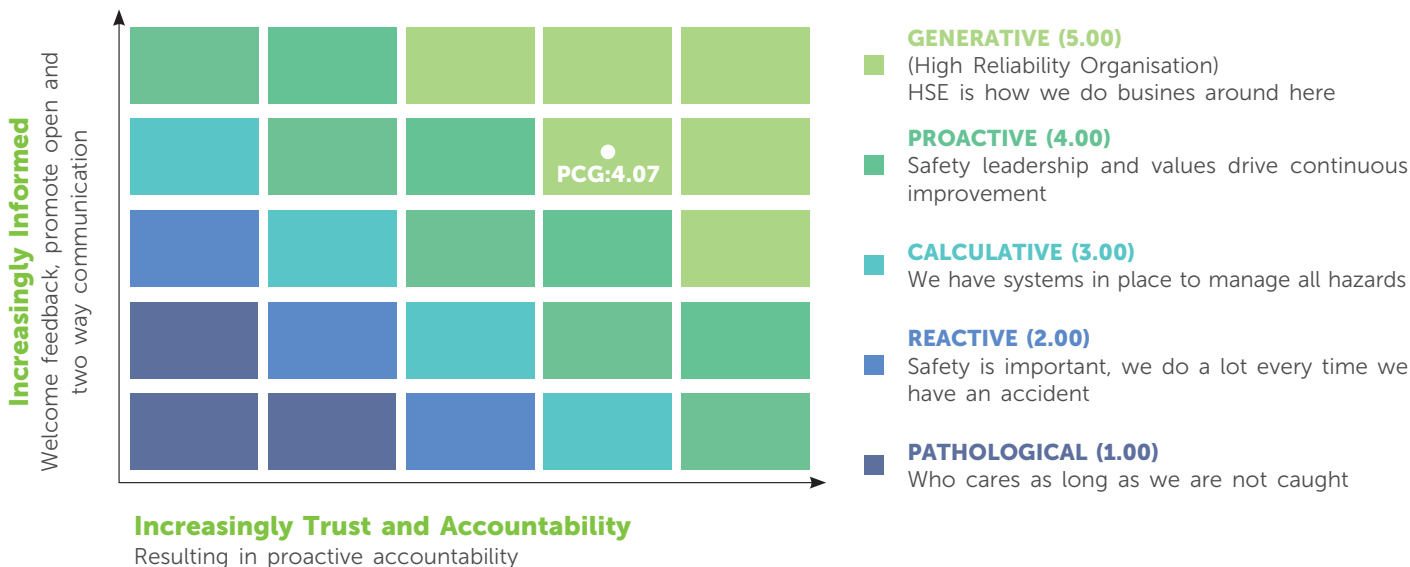
Transportation Initiatives Highlight

- As lesson learnt from past historical accidents, we are reviewing our delivery strategies to full lease basis with dedicated drivers and vehicles, instead of trip lease basis. This is to have assurance on full control of the driver, vehicles and journey management for effective implementation and monitoring of our safety programmes. Full lease will also bring operational flexibility in scheduling drivers and vehicles at hand.

- With a largely manual process, it is difficult to capture relevant data and monitor drivers' performance. Thus enforcement or intervention actions are not timely. To address this we are leveraging on advanced analytics to better detect risky behaviour of drivers. The first part leverages on a combination of GPS and video analytics to identify risky driver behaviour:

- GPS analytics detects violations of key safety indicators, such as when a driver is speeding, taking unapproved routes and driving during blackout periods (i.e. a period when drivers are restricted from driving for safety reasons, typically night time).

- Video analytics aggregates all the video footage and findings from the built-in dash cam. It then alerts PETRONAS Chemicals Group (PCG) and transport service providers when a driver is engaging in risky driving behaviours, such as yawning, texting, getting distracted or even if they take their hands off the wheel.

- The second part is a scoreboard, which will highlight driver performance and the risks related to driver behaviour. The aim is to facilitate timely actions and reduce accident rate for our commercial vehicles.

Leveraging Digital Technologies

We are embarking on a digital journey using advanced HSE analytics and big data to manage our physical assets more efficiently. In the first quarter of 2020 we expect to roll out a comprehensive system called PETRONAS Integrated Vision of Operation Excellence Technology (PIVOT) and Plant Operation Integrated Tools (POINT) which includes the following:

ePTW: electronic permit to work to enhance permit issuance and control	**eBSAFE:** digital enhancement of unsafe act and unsafe condition (UAUC) monitoring	**eLOG:** daily plant operation shift monitoring report	**eGTASK:** operating plant operators assignment and monitoring platform	**In Vehicle Monitoring System:** Global Positioning System (GPS) and On Board Camera (OBC) for land transportation	**Analytics Dashboard:** ready visualisation of key performance indicator of operating plants

HSE Culture Maturity Survey 2018

Increasingly Informed
Welcome feedback, promote open and two way communication

PCG:4.07

GENERATIVE (5.00)
(High Reliability Organisation)
HSE is how we do busines around here

PROACTIVE (4.00)
Safety leadership and values drive continuous improvement

CALCULATIVE (3.00)
We have systems in place to manage all hazards

REACTIVE (2.00)
Safety is important, we do a lot every time we have an accident

PATHOLOGICAL (1.00)
Who cares as long as we are not caught

Increasingly Trust and Accountability
Resulting in proactive accountability

EMPOWERING OUR WORKFORCE AND SOCIETY

In 2018, we conducted a survey to gauge the level of HSE maturity in our operating assets, and identify areas for improvement. Targeting all levels of employees from non-executives to senior management, we attracted a participation rate of 91%, and scored 4.07 out of 5.00. Based on the result achieve, we futher streamline our initiatives to attain our aspiration to achieve a generative HSE culture whereby 'HSE is how we do business'.

Total Respondents by Position

- Non-Executives
- Executives
- Middle Management
- Senior Management

62 **2%**
480 **11%**
1,334 **31%**
2,370 **56%**
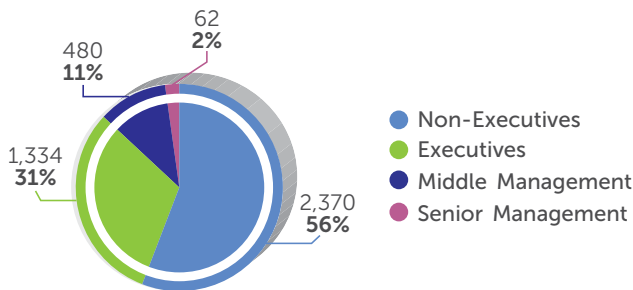
In enhancing Process Safety culture in the workplace, several initiatives had taken place in our Operating Units. One of the initiatives that is worth highlighting is the Process Safety Carnival which was conducted at PC Ethylene and PC Polyethylene Sdn. Bhd from 4th August until 4th September 2019. Among the key objectives of the initiatives is to cultivate Generative Process Safety Culture among the staff. This was achieved through various programmes that were conducted throughout the event, centered on Design-It-Right, Operate-It-Right and Maintain-It-Right.

## Emergency, Crisis and Business Continuity

To ensure our operating units have all the systems in place to manage emergencies and are fully prepared for such eventualities, we conduct drills and exercises throughout the year. Findings from these exercises are recorded and necessary improvements implemented by HSE and other relevant departments, with support from the Management. Such drills and exercises also test the preparedness of our external emergency supporters such as the Fire and Rescue Department, Police Department, Civil Defense Force and local medical facilities, as well as that of neighbouring plants.

In 2019, six operating units conducted full-scale emergency and crisis management exercises together with the relevant authorities.

At PCG Corporate Office, similar drills and exercises were conducted to test the evacuation procedure prepared for any workplace disruptions. In 2019, the readiness of alternate work site and associated facilities as well as virtual office environment were also tested to ensure business continuity remains intact. During the drill, all assigned critical business roles managed to successfully resume operation in delivering tasks vital for business continuance.

Occupational Safety and Process Safety

We recorded zero fatality during the year while improving several other key safety indictors such as loss time injury frequency (LTIF) and total recordable case frequency (TRCF). We recorded one significant process safety incident in 2019. However, none of the incident resulted into significant environmental spill.
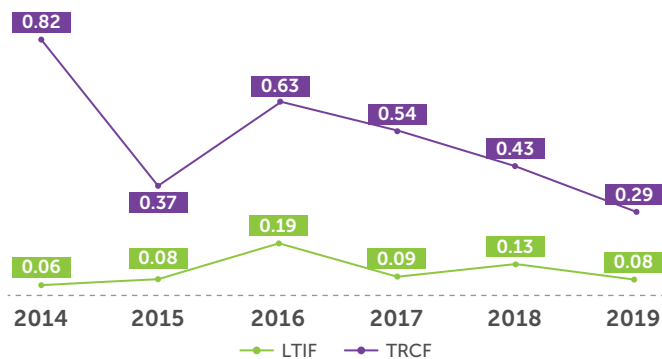
We recorded an LTIF of 0.08 incidents per million man-hours as compared to 0.13 in 2018, while our TRCF reduced from 0.43 per million man-hours to 0.29.
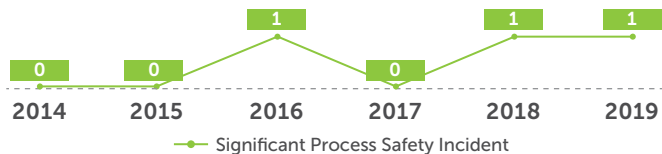
Key:

LTIF: Lost time injury frequency – number of LTIs per million man-hours
TRCF: Total recordable case frequency – number of TRCs per million man-hours

Awards and Recognition

Our operating units continued to be acknowledged for excellence in Safety and Health. Below are some of the more prominent awards and recognitions received throughout the year.

Royal Society for the Prevention of Accidents (RoSPA) Awards

Based in the United Kingdom, RoSPA Awards recognises excellence in work related health and safety performance by private and public sector organisations. PCG facilities were awarded the RoSPA President's Award (for obtaining 11 consecutive Gold Awards), alongside 2 Gold Awards and 1 Silver Award.

Malaysian Society for Occupational Safety and Health (MSOSH) Awards

The MSOSH Awards are presented annually to companies in Malaysia with outstanding Occupational Safety and Health (OSH) performance. PCG received 2 Grand Awards, 1 Gold Merit Award as well as 2 Gold Class 1 Awards, reflecting our commitment in upholding exceptional OSH standard at our operating facilities.

National Council for Occupational Safety and Health (NCOSH) Excellence Awards

The NCOSH Excellence Award by the National Council of Occupational Safety and Health, Ministry of Human Resource, is intended to acknowledge organisations, employers and employees in various industry sectors that have achieved excellence in managing safety and health systems in their workplace. PCG was shortlisted as the finalist under the Petroleum/Gas/Chemicals Category.

Chemical Industries Council of Malaysia (CICM) Responsible Care Awards

Organised by CICM, the Responsible Care Awards recognise organisations that have made most progress in implementing the Responsible Care's Six Codes of Management Practices on environmental, health and safety commitment in Malaysia. Through its facilities, PCG managed to clench a total of 7 Silver Awards and 2 Merit Awards for the 2019 edition.

Institut Kimia Malaysia (IKM) Laboratory Excellence Award

The IKM Laboratory Excellence Award recognises laboratories that have achieved competency in the practice of analytical work. It aspires to ensure commitment for excellence in providing quality services especially in the fields of health, safety and environment. PCG was awarded Silver Laboratory Excellence Award for achieving 10 years of consecutive excellence award for one of its facility in addition of other two, which received recognition of Laboratory Excellence Award.

Institution of Chemical Engineers (iChemE) Malaysia Awards

The iChemE Malaysia Awards acknowledges excellence in various fields of Chemical engineering in the country. PCG was announced winner for the Oil and Gas Award, Process Safety Award and Training and Development Award.

Malaysia Productivity Corporation (MPC) Team Excellence Convention

This convention provides a platform for quality experts and quality circle practitioners from all over the world to learn from the experiences and good practices of organisations and teams. At the National Level, 2 of our facilities we ranked Top 20 under the Best in Manufacturing Sector Award. PCG too managed to clench 5 Gold Awards as well as 1 Silver Award at the same convention.

EMPOWERING OUR
WORKFORCE AND SOCIETY

TALENT DEVELOPMENT

We believe we are only as good as our people. Everything that we have accomplished and what we hope to achieve in the future, banks on the capabilities and competencies of our people, which are critical to delivering our goals and objectives.

Our Approach

We invest significantly in our people to equip them with capabilities and competencies crucial to drive our ongoing growth journey. We believe in providing learning and development opportunities while also empowering our people to realise their potential and take greater control of their career progression. Our aspiration is to have a large pool of leaders who will countinue to lead a high-performance organisation.

In developing our talent, we consider our workforce needs for current and future business success. As we venture into specialty chemicals, we have outlined a talent acquisition strategy starting in 2019 to bring on board experienced employees with expertise in specialty chemicals who can help build a pipeline of future leaders in this area. For our core business in manufacturing, we have undertaken a seeding programme to ensure sustainable pipeline of technicians and supervisors.

Performance and Key Initiatives

Training and Development

Our training and development model adopt 10:20:70 ratio of 10% formal learning programme as identified through the employee's learning needs analysis including e-Learning training provided by the company, 20% coaching & mentoring through formal and informal platforms, and 70% learning through on-the-job application of knowledge and skills via various exposures including employee's current job and projects.

A range of training programmes are made available, including leadership programmes tailored to the different employee levels, and technical trainings offered by respective skills groups. This year, more training on leadership skills and technical competencies were conducted which resulted in higher training investment per employee.

Training Investment

	2015	2016	2017	2018	2019
Training man-days per employee	12.0	8.4	7.4	7.8	7.9
Training investment per employee (RM)	6,085	7,368	5,343	5,329	8,481

We have implemented an Accelerated Capability Development (ACD) programme, which adopts a blended learning approach for technical executives, focused on assessment, coaching and training. This has been supplemented by the ACD Booster Programme under which subject matter experts (SMEs) coach junior engineers to help speed up their time-to-autonomy (TTA). During the year, we have piloted a simplified Superior-Managed Assessment (SMA) at one of our manufacturing plant, as part of project RESCISCO that aims at delivering a fit-for-purpose talent development across PETRONAS Group.

Non-executive technical employees – i.e. technicians and plant operators – are assessed using the PETRONAS Competency-Based Assessment System (PECAS). Based on the results, these employees are certified for specific tasks. Focused trainings are provided to achieve targeted competency levels for the different technical certifications.

Technical Professional (TP) Network

Initiated in 2017, the network enables TPs to develop potential successors. To date, initiatives are being run in the specialist areas of Water Technology, Ammonia Process, Mechanical Engineering, Electrical Engineering and Instrumentation. The programme gives young TP talent the opportunity to connect with peers with similar expertise and, most importantly, to get guidance from experienced TPs.

Training Coordinator (TC) Network

This network, which aims to strengthen the role of TCs, was introduced in 2019. In addition to upskilling TCs to plan and track training programmes using e-Learning application, it also provides a platform for communication among TCs to share best practices, discuss ideas as well as to seek guidance. Since February 2019, TCs have met in a series of workshops while also attending training and upskilling programmes.

Non-Technical Training

We conduct an annual Online Functional Assessment (OFA) to identify competency gaps among our non-technical executives. This facilitates our employees to identify and plan learning and development activities that will help them to close their skills gaps and progress their careers.

Chartered Institute of Marketing (CIM) Programmes

The Chartered Institute of Marketing (CIM) is an internationally recognised professional marketing body based in the UK that serves to develop the marketing profession, improve global marketing practices, enhance the credibility of its members and build a global network of marketing professionals. To further enhance our marketing capabilities, we provide deserving talent from the commercial team the opportunity to gain CIM accreditation. Since 2018, PC Marketing Labuan has supported 8 of its talents to pursue the Certificate of Professional Marketing (Level 4 CIM) and the Diploma in Professional Marketing (Level 6 CIM).

Leadership Development

We provide leadership development training throughout the employee's career, guided by PETRONAS Leadership Framework to build sustainable supply of leaders who will drive the business.

At the early stage of their career, the intent is to equip our employees with leadership foundation, becoming mindful of own goals, challenges, strengths and development areas. This will facilitate our employees to realise their full potential.

At managerial level, employees are provided with various leadership training namely;

Managerial Excellence
Exposure to new managers in acquiring new knowledge, skills and behaviours in critical areas of people and business leadership

Tactical Excellence
Drive leader's transition into senior managerial roles as well as enhance their leadership skills

Strategic Excellence
Support holistic growth of leaders and drive leadership development as strategic implementers

Lifelong Learning through Staff Development Programme (SDP)

Staff Development Programme (SDP) provides employees the opportunity to enhance their career growth and/or academic advancement that are in accordance with business requirement. We provide financial assistance to employee who intends to further study at any recognised institution/university, either on part-time or full-time basis.

In addition, employee who intends to pursue study at any recognised institution/university on full-time basis may be considered for unpaid study leave up to 24 months subject to Management's approval.

EMPOWERING OUR
WORKFORCE AND SOCIETY

PCG Integrity Week 2019

Following the signing of the MACC Integrity Pact, we organised PCG Integrity Week from 23-27 September 2019 to share our leadership's vision on integrity with all employees and to instill a culture of integrity. Among the activities organised were Leadership Talks in topics such as Integrity at Workplace and Anti Bribery & Corruption. Employees were also reminded about PETRONAS' Integrity Compliance Framework and its Code of Conduct & Business Ethics (CoBE). In addition, there was an exhibition by MACC, Group Integrity and Corporate Affairs of PCG.

EMPLOYEE WELL-BEING

We believe that employees who are satisfied in the workplace are more productive and make better team players. They are more willing to collaborate to achieve our shared goals. In order to enhance a sense of well-being, we continue to engage with our employees and ensure that we provide a conducive working environment.

Employee Engagement

We engage with employees through various platforms. Our leadership team continue to engage employees at various events including Coffee with the CEO, FELT Leadership Talks and Walkabouts, and our annual Majlis Sekalung Budi to recognise the contributions of long-serving employees. We have also leveraged digital channels to communicate corporate updates, events and achievements to employees.

In 2019, we have enhanced our employee engagement through roundtable discussions with our regional offices, PCG Family Day and PCG Integrity Week.

We have also engaged regularly with our in-house unions, especially on matters relating to changes in Human Resources policies or processes to ensure industrial harmony.

Employee Benefits

In 2019, we introduced Spousal Assistance – an unpaid leave provision for the spouses of our employees who are on overseas assignments, provided that the spouses also work for PCG or PETRONAS and/or its other subsidiaries. Through this benefit, the spouse may take leave without pay for a maximum period of 36 months and upon their return to Malaysia, the spouses may resume to work within PETRONAS Group, subject to the availability of a suitable position.

We have also revised medical benefits entitlement limit for our unionised employees including Outpatient General Practitioner (GP) & Specialists including Paediatric Care and Hospitalisation & Surgery (H&S).

In supporting women and men in their roles as parents, pregnant women are allowed to return home early from work, while new fathers are provided with paternity leave. As an added benefit for employees with young children, PETRONITA (Association for wives and female staff of PETRONAS) launched PETRONITA Crèche in January 2020 and is available to employees of PETRONAS Group, including PCG.

Employee Grievance Mechanisms

We have a comprehensive work process in handling grievance with the aim of reaching earliest agreement at the lowest level and maintaining good relations between both parties. During the year, no grievance was recorded.

Diversity and Inclusion

We recognise the value that a diverse workforce brings to an organisation, particularly the different opinions and perspectives, which enrich our intellectual capital and enhance our ability to understand and meet the market's needs. We therefore seek to bring together a diverse workforce at PCG that encompasses a balance of the genders and good representation of different ethnicities, cultural backgrounds as well as age groups.

Women make up close to 20% of our total workforce, influenced by the largely male representation of the workforce in our manufacturing plants. The composition increases in the other segments of our employees namely Senior Management and Management Committee, where women represents 25.2% and 36.4% of the population respectively. This is testament of continuous introduction of women and family centric policies including Flexible Working Arrangement, availability of nursing rooms in the workplace and networking platform for female employees through PETRONAS Leading Women Network (PLWN).

Distribution of Workforce by Age

Age	Total
29 and below	490
30 - 39	2,142
40 - 49	1,286
50 - 59	491
60 & above	15
Total	**4,424**

Distribution of Workforce by Gender

Year	Total Workforce		Senior Management		Management Committee		Board of Directors	
	Men	Women	Men	Women	Men	Women	Men	Women
2014	81.2%	18.8%	78.5%	21.5%	72.7%	27.3%	75.0%	25.0%
2015	80.5%	19.5%	78.7%	21.3%	80.0%	20.0%	75.0%	25.0%
2016	82.0%	18.0%	81.2%	18.8%	63.6%	36.4%	75.0%	25.0%
2017	81.5%	18.5%	78.1%	21.9%	63.6%	36.4%	75.0%	25.0%
2018	82.5%	17.5%	80.0%	20.0%	63.6%	36.4%	78.0%	22.0%
2019	82.6%	17.4%	74.8%	25.2 %	63.6%	36.4%	75.0%	25.0%

Employee Retention and Attrition

Year	Turnover Rate
2014	1.8%
2015	1.8%
2016	1.0%
2017	0.9%
2018	2.1%
2019	0.7%

We have recorded a significantly low turnover rate of 0.7% for 2019 as compared to 2018 (2.1%). This is significantly below the average turnover rate for chemicals industry in Malaysia which is 7.5%. The result is a testament of the Group's continuous efforts to provide a conducive working environment supported by effective employee engagement by the leadership team.

Indicator	Target	Results
Capability assessment (%)	100	95
TP developed (number)	15	26
Ready talent to critical position (ratio)	2.4:1	2.6:1
Turnover rate (%)	2.1*	0.7

* Based on 2018 Turnover Rate

EMPOWERING OUR WORKFORCE AND SOCIETY

HUMAN RIGHTS & FAIR EMPLOYMENT

Human rights are basic rights that every individual is entitled to. They are based on the principles of dignity, fairness, respect and equality. Some of the issues closely related to human rights are non-discrimination, freedom of association, the right to education, access to clean air and water. At the workplace, it refers to fair and humane treatment of all employees by treating everyone with respect and having zero tolerance for discrimination, harassment or bigotry.

Our Approach

PCG believes in upholding and promoting fundamental human rights and fair labour practices across the Group. We adhere to PETRONAS' Human Rights Commitment, which is in line with the UN's Guiding Principles on Business and Human Rights. It is applicable to all employees, contractors and any third party within our premises or performing work on behalf of PCG.

Based on this Human Rights Commitment, we will:

Respect internationally recognised human rights throughout our operations, and comply with PETRONAS' CoBE as well as all relevant legal requirements	Respect the rights of local communities, contracted partners, our employees and all other stakeholders	Ensure our activities are governed by human rights principles, laws, best industry practices and standards

Contractor Management

We expect our contractors to also respect and protect Human Rights, and have made explicit our requirements as outlined in the PETRONAS Contractors Code of Conduct on Human Rights (CoCHR). We subsequently assess our contractors' compliance on human rights elements through Supplier Tracking Assessment and Rating (STAR) System, mandatory HSE contractual requirement and contractor assurance checklist as part of our contractor management process.

We continuously support the communication and training programmes conducted by Group Procurement in efforts to educate our contractors on human rights and in fulfilling the requirements and expectation of the Commitment.

All contractors are required to adhere to the following:

1. Respect freedom of labour, by not engaging or employing people against their own free will or engaging in bonded labour/debt slavery.

2. Prevent child labour, by not employing children below the local legal minimum working age (generally at least 18 years of age).

3. Comply with all applicable laws related to employee compensation, including minimum wage, overtime hours and legally mandated benefits.

4. Comply with all applicable laws related to working hours, overtime and work during holidays.

5. Provide a means of grievance reporting and appropriate follow-up measures while protecting the identity of the complainant.

6. Respect workplace diversity 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.

7. Respect legal rights of employees to freedom of association with labour unions, etc.

8. Respect employee's rights and ensure no harsh or inhumane treatment, including any form of mental or physical coercion, or verbal abuse.

9. Where foreign or migrant employees are engaged, to fully comply with the labour and immigration laws of the host country. Prior to hiring, the basic terms of employment must be provided to employees in their native language or a language they understand. Passports and other forms of personal identification must remain in the employee's possession at all times.

Supplier Management

We have established mandatory grievance mechanisms for projects and operating units to address HSE and social matters raised by affected stakeholders during business activities.

Moving forward:

PCG will continue to intensify our communications on human rights through training programmes to ensure the expectations and requirements of the PETRONAS Human Rights Commitment is understood and abided by.
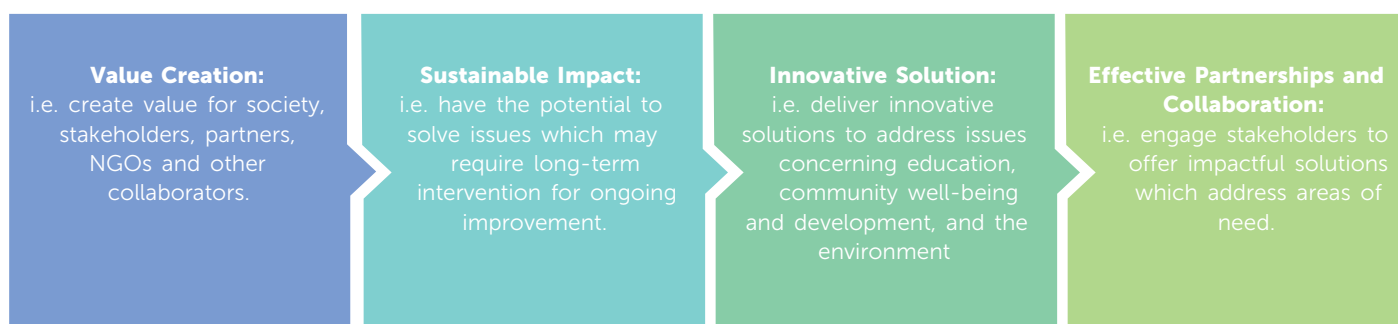
COMMUNITY ENGAGEMENT

We recognise the community as our end consumers. Their well-being contributes to our sustainability. More than that, we believe that giving back to the needy in society is simply the right thing to do.
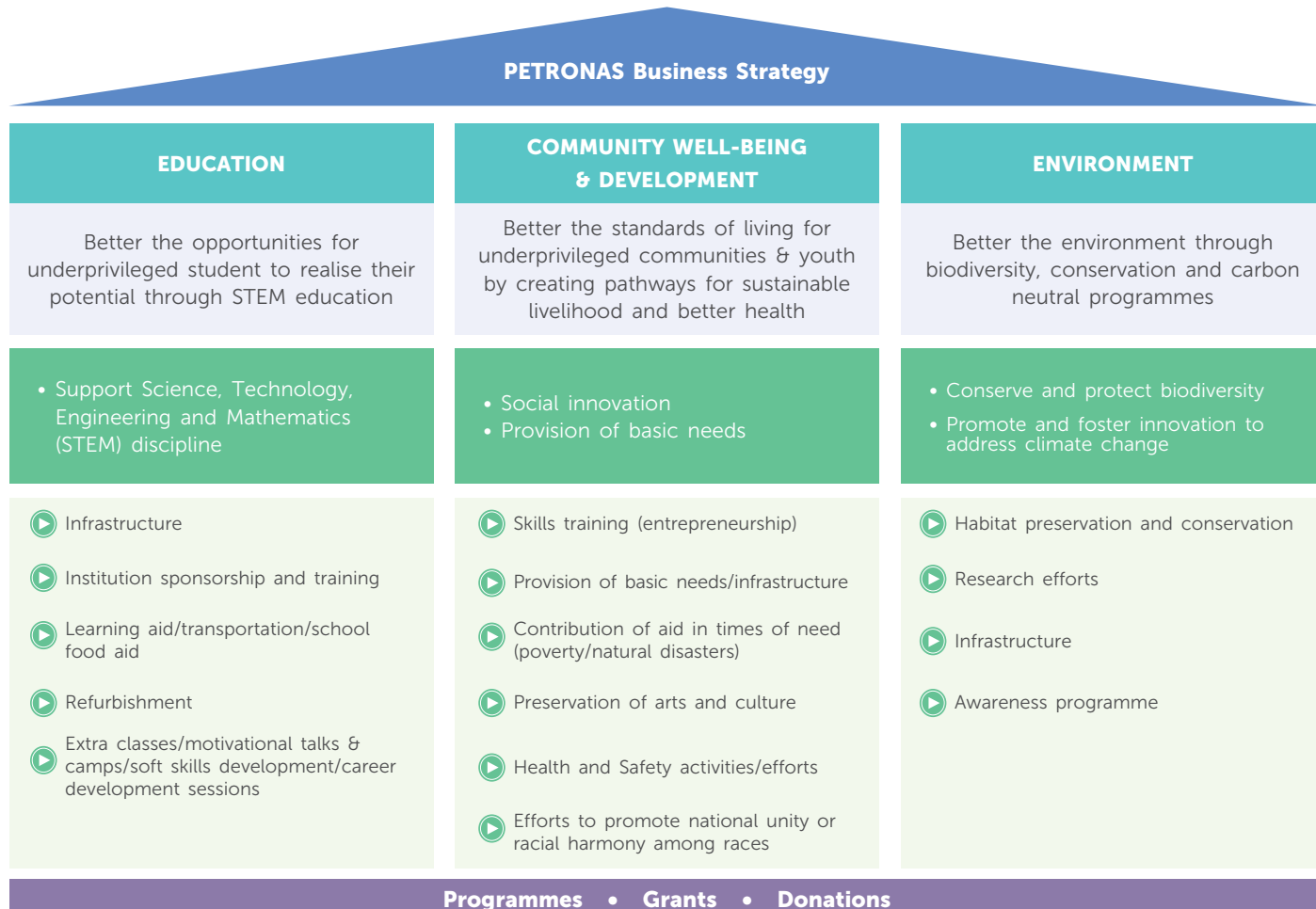
Our Approach

We support local communities via our Corporate Social Responsibility (CSR) programme, which has been moulded by PETRONAS' CSR framework focusing on Education, Community Well-being & Development as well as Environment. Each plant implements selected CSR programmes based on identified stakeholder issues, while our key signature programmes are aligned with our business agenda.

In deciding on programmes to invest in, we are guided by the following Yayasan PETRONAS' principles, which gives priority to projects that embody;

| **Value Creation:** i.e. create value for society, stakeholders, partners, NGOs and other collaborators. | **Sustainable Impact:** i.e. have the potential to solve issues which may require long-term intervention for ongoing improvement. | **Innovative Solution:** i.e. deliver innovative solutions to address issues concerning education, community well-being and development, and the environment | **Effective Partnerships and Collaboration:** i.e. engage stakeholders to offer impactful solutions which address areas of need. |

Yayasan PETRONAS CSR Strategic Framework

PETRONAS Business Strategy

EDUCATION	COMMUNITY WELL-BEING & DEVELOPMENT	ENVIRONMENT
Better the opportunities for underprivileged student to realise their potential through STEM education	Better the standards of living for underprivileged communities & youth by creating pathways for sustainable livelihood and better health	Better the environment through biodiversity, conservation and carbon neutral programmes
• Support Science, Technology, Engineering and Mathematics (STEM) discipline	• Social innovation • Provision of basic needs	• Conserve and protect biodiversity • Promote and foster innovation to address climate change
▶ Infrastructure	▶ Skills training (entrepreneurship)	▶ Habitat preservation and conservation
▶ Institution sponsorship and training	▶ Provision of basic needs/infrastructure	▶ Research efforts
▶ Learning aid/transportation/school food aid	▶ Contribution of aid in times of need (poverty/natural disasters)	▶ Infrastructure
▶ Refurbishment	▶ Preservation of arts and culture	▶ Awareness programme
▶ Extra classes/motivational talks & camps/soft skills development/career development sessions	▶ Health and Safety activities/efforts	
	▶ Efforts to promote national unity or racial harmony among races	

Programmes • Grants • Donations

EMPOWERING OUR WORKFORCE AND SOCIETY

Education

Enhance opportunities for underprivileged students to realise their potential

Back to School

Through the programme, we seek to alleviate the financial burden of parents by providing their children with complete sets of uniforms, shoes and bags before the beginning of the new year. In addition this helps to motivate the children to approach the new academic year with a positive mindframe.

In 2019, Back to School was conducted under the banner of Yayasan PETRONAS. PCG led the programme in Sipitang, Sabah; Labuan; and Bintulu, Sarawak, where we distribute the school sets to 1,100 students in our area of operations.

Community Well-being and Development

Enhance standard of living of underprivileged communities and youth by creating pathways for sustainable livelihood and better health

Safety Awareness

Through this programme, which we have run since 2015, we provide first aid training and educate teachers, lab assistants as well as students on how to handle chemicals safely during science classes. The programme is also in support of the Government's emergency preparedness efforts. This year, we ran the programme in Sipitang, Labuan and Kedah, benefitting about 600 students, teachers and lab assistants.

Philanthropic Activities

We contribute to a number of charitable causes, instilling a culture of giving back to communities and the underprivileged.

Event	When	Description
Ramadan Charity Fest 2019	23 & 24 May	PCG Charity Fest is part of PCG's annual Ramadan month activities that serves as a platform for employees to raise funds and contribute to the underprivileged. The Charity Fest was launched at PCG Corporate Office and activated at all plants. Among the activities held were charity bazaars, sale of pre-loved items as well as donation drives. Several NGOs that promote economic empowerment of marginalised communities participated such as UmmiAktif and Helping Hands Penan. More than RM284,000 was contributed to charitable organisations throughout Malaysia including Pertubuhan Kebajikan & Sosial RedhaMu Tuhan, Yayasan Chow Kit and Dana As Syakirin.
Program Sentuhan Kasih	Festive Seasons	As a caring organisation, Sentuhan Kasih is a yearly programme that is held to support Yayasan PETRONAS to assist underprivileged communities especially the B40 group during festive seasons. This year, a total of more than RM211,00 was channeled via our subsidiaries to various communities surrounding our operation areas.
Regional Chemical Engineering Undergraduate Congress (RCEUC)	8 & 9 July	PCG sponsored RM4,000 to this event in support of Science, Technology, Engineering and Mathematics (STEM) discipline. More than 100 Chemical Engineering undergraduates from the University of Malaya, local, as well as regional universities participated in this event which was held to promote innovation, digital technologies and applications in chemical engineering.
PETRONITA Orchid Run	6 October	The annual run this year channeled more than RM500,000 to the Breast Cancer Welfare Association Malaysia, Child Development and Rehabilitation Centre of the Women and Children Hospital Kuala Lumpur, Tabung PPUMCare as well as the Mental Illness Awareness and Support Association. PCG contributed RM26,250 through sponsorship and 100 PCG participants for the run.
Bursa Bull Charge	14 November	The annual run promotes financial literacy and entrepreneurship, while gathering support from the Malaysian capital market to help improve lives. PCG contributed RM28,000 through sponsorship by sending 3 teams of 15 runners as a show of support.

Enhance the environment through biodiversity, conservation and carbon neutral programme
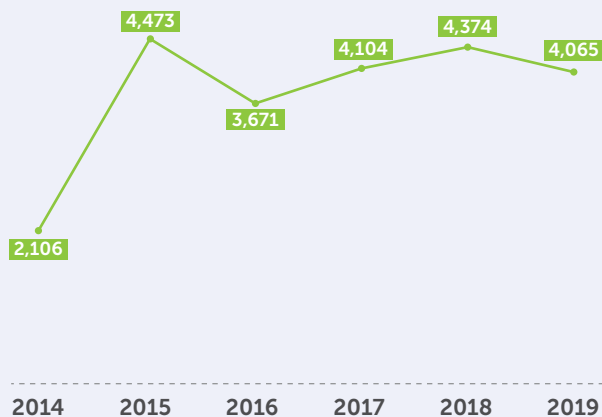
PCG BeGreen

In 2019, we expanded our Be Green programme from two locations to four locations, enhancing it with the elements of plastic management and 3R. Through the programme, we impart awareness on the applications and benefits of using plastic, addressing common misconceptions and negative perception about this material. We also addressed the issue of waste management focusing on clean-up activities with the community at selected rivers and beach. This include regular workshops, talks and gotong-royong activities which impart the know-how on waste segregation at home and keeping the environment clean. These initiatives reached out to more than 2,700 participants and volunteers.
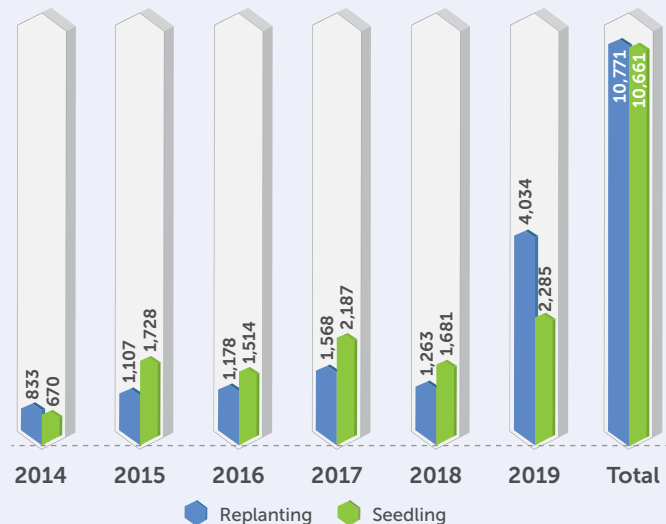
ecoCare

ecoCare is PCG's flagship environmental conservation initiative, run in collaboration with the Malaysian Nature Society (MNS) since 2005. Being the first environmental education centre in the East Cost of Peninsular Malaysia, it promotes awareness on the importance of mangrove ecosystems in protection of biodiversity as well as coastal terrain. Through ecoCare, we engage local community volunteers in carrying out conservation and rehabilitation activities. In 2019, more than 6,300 mangrove trees and seedlings were planted, while the ecoCare Environmental Education Centre (EEC) attracted more than 4,000 visitors.
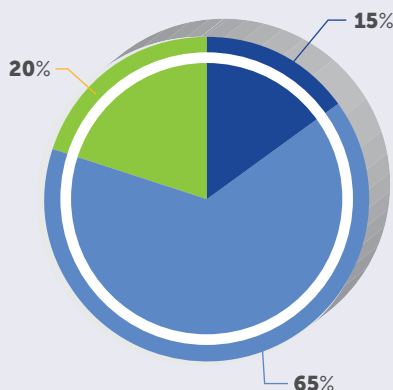
Number of Participants and Visitors At EEC

2014	2015	2016	2017	2018	2019
2,106	4,473	3,671	4,104	4,374	4,065

Number of Mangrove Trees and Seedling Planted

	2014	2015	2016	2017	2018	2019	Total
Replanting	833	1,107	1,178	1,568	1,263	4,034	10,771
Seedling	670	1,728	1,514	2,187	1,681	2,285	10,661

Percentage of CSR Spending

- 15%
- 20%
- 65%

● Community Investment

Refers to strategic involvements in, and partnerships with, community organisations and Non-Governmental Organisations (NGOs) to address a selected range of education, social and environment concerns, anchored by the company to protect its long-term corporate interests and to enhance its reputation.

● Commercial Initiative

Refers to business-related activities in the community to directly support the success of the company, promoting its corporate and brand identities and other policies, through selected initiatives by regulatory bodies, business associations and education institutions.

● Charitable Donation

Refers to occasional support to good causes in response to the needs and appeals of charitable and community organisations

Indicator	Target	Results
Number of people reached	100,000 by 2024	20,000

ADDITIONAL
INFORMATION

General Standard Disclosures		Page Number
Organisational Profile		
Disclosure 102-1	Name of the organisation	IR, pg. 18
Disclosure 102-2	Activities, brands, products, and services	SR, pg. 7 IR, pg. 30-31
Disclosure 102-3	Location of headquarters	IR, pg. 29
Disclosure 102-4	Location of operations	IR, pg. 28-29
Disclosure 102-5	Ownership and legal form	See Notes IR, pg. 32
Disclosure 102-6	Markets served	IR, pg. 28-29
Disclosure 102-7	Scale of the organisation	IR, pg. 22-24, 28
Disclosure 102-8	Information on employees and other workers	SR, pg. 48-49
Disclosure 102-9	Supply chain	SR, pg. 34 IR, pg. 30-31
Disclosure 102-10	Significant changes to the organisation and its supply chain	See Notes IR, pg. 22
Disclosure 102-11	Precautionary Principle Approach	SR, pg. 28, 35, 37-38
Disclosure 102-12	External initiatives	SR, pg. 21-23, 27, 50
Disclosure 102-13	Membership of associations	SR, pg. 29, 45
Strategy		
Disclosure 102-14	Statement from senior decision-maker	SR, pg. 3-4 IR, pg. 37-51
Disclosure 102-15	Key impact, risks and opportunities	IR, pg. 76-80
Ethics and Integrity		
Disclosure 102-16	Values, principles, standards and norms of behaviour	SR, pg. 10 IR, pg. 143
Disclosure 102-17	Mechanism for advice and concerns about ethics	SR, pg. 24 SR, pg. 48-50
Governance		
Disclosure 102-18	Governance structure	GFR, pg. 15
Disclosure 102-19	Delegating authority	-
Disclosure 102-20	Executive-level responsibility for economic, environmental and social topics	SR, pg. 12 IR, pg. 125, 130
Disclosure 102-22	Composition of the highest governance body and its committees	GFR, pg. 4-17
Disclosure 102-23	Chair of the highest governance body	GFR, pg. 17
Disclosure 102-24	Nominating and selecting the highest governance body	GFR, pg. 18
Disclosure 102-25	Conflicts of interest	GFR, pg. 36-37
Disclosure 102-26	Role of highest governance body in setting purpose, values and strategy	IR, pg. 16
Disclosure 102-27	Collective knowledge of highest governance body	GFR, pg. 22-24
Disclosure 102-28	Evaluating the highest governance body's performance	GFR, pg. 25, 29
Disclosure 102-29	Identifying and managing economic, environmental and social impacts	SR, pg. 13-17, 28
Disclosure 102-30	Effectiveness of risk management processes	IR, pg. 76, 135 GFR, pg. 50
Disclosure 102-31	Review of economic, environmental and social topics	SR, pg. 12
Disclosure 102-32	Highest governance body's role in sustainability reporting	SR, pg. 12
Disclosure 102-33	Communicating critical concerns	IR, pg. 136

General Standard Disclosures		Page Number
Disclosure 102-35	Remuneration policies	GFR, pg. 25-26
Disclosure 102-36	Process for determining remuneration	GFR, pg. 25-26
Disclosure 102-37	Stakeholders' involvement in remuneration	GFR, pg. 25-26
Stakeholder Engagement		
Disclosure 102-40	List of stakeholder groups	SR, pg. 18-19
Disclosure 102-41	Collective bargaining agreements	SR, pg. 50
Disclosure 102-42	Identifying and selecting stakeholders	SR, pg. 18-19
Disclosure 102-43	Approach to stakeholder engagement	SR, pg. 18-19
Disclosure 102-44	Key topics and concerns raised	SR, pg. 18-20
Reporting Practice		
Disclosure 102-45	Entities included in the consolidated financial statements	IR, pg. 108-111
Disclosure 102-46	Defining report content and topic boundaries	IR, pg. 18
Disclosure 102-47	List of material topics	SR, pg. 13-17
Disclosure 102-48	Restatements of information	-
Disclosure 102-49	Changes in reporting	See Notes IR, pg. 18
Disclosure 102-50	Reporting period	See Notes
Disclosure 102-51	Date of most recent report	See Notes
Disclosure 102-52	Reporting cycle	See Notes
Disclosure 102-53	Contact point for questions regarding the report	IR, pg. 10, 21
Disclosure 102-54	Claims of reporting in accordance with the GRI Standards	IR, pg. 19
Disclosure 102-55	GRI content index	SR, pg. 54-57
Disclosure 102-56	External assurance	IR, pg. 18
Topic-specific Standard: Economic		
Disclosure 201	Management Approach: Economic Performance	IR, pg. 54-55, 57
Disclosure 201-1	Direct economic value generated and distributed	SR, pg. 8-9
Disclosure 201-3	Defined benefit plan obligations and other retirement plans	IR, pg. 112
Disclosure 202	Management Approach: Market Presence	IR, pg. 28-29
Disclosure 202-1	Ratios of standard entry level wage by gender compared to local minimum wage	SR, pg. 50
Disclosure 202-2	Proportion of senior management hired from local community	SR, pg. 49
Disclosure 203	Management Approach: Indirect Economic Impacts	IR, pg. 40-45
Disclosure 203-1	Infrastructure investments and services supported	IR, pg. 66-67
Disclosure 203-2	Significant indirect economic impacts	IR, pg. 86-99
Disclosure 204	Management Approach: Procurement Practices	SR, pg. 34
Disclosure 204-1	Proportion of spending on local suppliers	SR, pg. 34
Disclosure 205	Management Approach: Anti-corruption	SR, pg. 24
Disclosure 205-1	Operations assessed for risks related to corruption	-
Disclosure 205-2	Communication and training about anticorruption policies and procedures	SR, pg. 24 SR, pg. 48
Disclosure 205-3	Confirmed incidents of corruption and actions taken	None Reported
Disclosure 206	Management Approach: Anti-competitive Behaviour	CoBE, 14.2
Disclosure 206-1	Legal actions for anti-competitive behaviour, anti-trust and monopoly practices	None Reported

ADDITIONAL INFORMATION

General Standard Disclosures		Page Number
Topic-specific Standard: Environmental		
Disclosure 302	Management Approach: Energy	SR, pg. 35
Disclosure 302-1	Energy consumption within the organisation	SR, pg. 36
Disclosure 302-3	Energy intensity	SR, pg. 36
Disclosure 302-4	Reduction in energy consumption	SR, pg. 36
Disclosure OG2	Total amount invested in renewable energy	-
Disclosure 303	Management Approach: Water	SR, pg. 38
Disclosure 303-1	Interactions with water as a shared resource	-
Disclosure 303-2	Management of water discharge-related impacts	SR, pg. 38-39
Disclosure 303-3	Water withdrawal	SR, pg. 39
Disclosure 303-4	Water discharge	SR, pg. 39
Disclosure 303-5	Water consumption	SR, pg. 38-39
Disclosure 305	Management Approach: Emissions	SR, pg. 35
Disclosure 305-1	Direct (Scope 1) GHG emissions	SR, pg. 36
Disclosure 305-2	Energy indirect (Scope 2) GHG emissions	SR, pg. 36
Disclosure 305-4	GHG emissions intensity	SR, pg. 36
Disclosure 305-5	Reduction of GHG emissions	SR, pg. 36-37
Disclosure 305-6	Emissions of ozone-depleting substances (ODS)	-
Disclosure 305-7	Nitrogen oxides (NO_X), sulfur oxides (SO_X) and other significant air emissions	SR, pg. 40
Disclosure 306	Management Approach: Effluent and Waste	SR, pg. 38-39
Disclosure 306-1	Water discharge by quality and destination	SR, pg. 38-39
Disclosure 306-2	Waste by type and disposal method	SR, pg. 40
Disclosure 306-3	Significant spill	SR, pg. 44
Disclosure 306-4	Transport of hazardous waste	SR, pg. 38
Disclosure 306-5	Water bodies affected by water discharges and/or runoff	SR, pg. 38
Disclosure 307	Management Approach: Environmental Compliance	SR, pg. 41
Disclosure 307-1	Non-compliance with environmental laws and regulations	SR, pg. 38
Disclosure 308	Management Approach: Supplier Environmental Assessment	SR, pg. 34
Disclosure 308-1	New suppliers that were screened using environmental criteria	SR, pg. 34
Disclosure 308-2	Negative environmental impacts in the supply chain and actions taken	-
Topic-specific Standard: Social		
Disclosure 401	Management Approach: Employment	SR, pg. 46-49
Disclosure 401-1	New employee hires and employee turnover	SR, pg. 49
Disclosure 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	SR, pg. 48
Disclosure 401-3	Parental Leave	SR, pg. 48
Disclosure 402	Management Approach: Labour Management Relations	SR, pg. 48
Disclosure 402-1	Minimum notice periods regarding operational changes	-
Disclosure 403	Management Approach: Occupational Health and Safety	SR, pg. 41
Disclosure 403-1	Occupational, Health and Safety System	SR, pg. 41-42

General Standard Disclosures		Page Number
Disclosure 403-2	Hazard identification, risk assessment and incident investigation	IR, pg. 77
Disclosure 403-4	Worker participation, consultation and communication on occupational health and safety	SR, pg. 42-44
Disclosure 403-5	Worker training on occupational health and safety	SR, pg. 41
Disclosure 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	SR, pg. 41-43
Disclosure 403-9	Work-related injuries	SR, pg. 44
Disclosure 403-10	Work-related ill health	-
Disclosure OG13	Number of process safety events, by business activity	SR, pg. 44
Disclosure 404	Management Approach: Training and Education	SR, pg. 46
Disclosure 404-1	Average hours of training per year per employee	SR, pg. 46
Disclosure 404-2	Programmes for upgrading employee skills and transition assistance programmes	SR, pg. 47
Disclosure 404-3	Percentage of employees receiving regular performance and career development reviews	SR, pg. 48
Disclosure 405	Management Approach: Diversity and Equal Opportunity	SR, pg. 48
Disclosure 405-1	Diversity of governance bodies and employees	SR, pg. 48-49 IR, pg. 120
Disclosure 406	Management Approach: Non-discrimination	SR, pg. 50
Disclosure 406-1	Incidents of discrimination and corrective actions taken	-
Disclosure 407	Management Approach: Freedom of Association and Collective Bargaining	SR, pg. 50
Disclosure 407-1	Freedom of Association and Collective Bargaining	SR, pg. 50
Disclosure 412	Management Approach: Human Rights Assessment	SR, pg. 50
Disclosure 412-1	Operations that have been subject to human rights reviews or impact assessments	SR, pg. 50
Disclosure 412-2	Employee training on human rights policies or procedures	-
Disclosure 413	Management Approach: Local Communities	SR, pg. 51
Disclosure 413-1	Operations with local community engagement, impact assessments and development programmes	SR, pg. 51-53
Disclosure 413-2	Operations with significant actual and potential negative impacts on local communities	SR, pg. 52
Disclosure 414	Management Approach: Supplier Social Assessment	SR, pg. 34 SR, pg. 50
Disclosure 414-1	New suppliers that were screened using social criteria	SR, pg. 34
Disclosure 414-2	Negative social impacts in the supply chain and actions taken	-
Disclosure 416	Management Approach: Customer Health and Safety	SR, pg. 29
Disclosure 416-1	Assessment of the health and safety impacts of product and service categories	SR, pg. 29 SR, pg. 33
Disclosure 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	-
Disclosure 418	Management Approach: Customer Privacy	-
Disclosure 418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	-
Disclosure 419	Management Approach: Socioeconomic Compliance	SR, pg. 38
Disclosure 419-1	Non-compliance with laws and regulations in the social and economic area	SR, pg. 38

Notes: Please refer SR 'About This Report'

Tel : +603 2051 5000

Fax : +603 2051 3888

www.petronaschemicals.com

PETRONAS Chemicals Group Berhad

Tower 1, PETRONAS Twin Towers
Kuala Lumpur City Centre
50088 Kuala Lumpur, Malaysia

Tel : +603 2051 5000
Fax : +603 2051 3888