RISKS OVERVIEW

As a global integrated chemicals player, PCG is constantly adapting to the changing world, which is shifting from a VUCA (volatile, uncertain, complex, and ambiguous) nature to a BANI (brittle, anxious, non-linear, and incomprehensible) environment. This brought both arduous challenges and promising opportunities for us in FY2023. Our established risk management framework, which comprises Enterprise Risk Management (ERM), Crisis Management (CM), and Business Continuity Management (BCM), enables us to remain resilient and effectively handle the uncertainties and risks stemming from geopolitical crises, market volatility, supply chain disruptions and a multitude of other factors. By using these frameworks to implement risk management activities, which includes risk appetite evaluations, monitoring, and deliberations on high impact business matters for decision-making, we have gained the flexibility to pursue our growth agenda in a prudent and sustainable manner.

R *Details of our risk management framework and governance oversight structure can be found on pages 122 to 136, under the Statement on Risk Management and Internal Control (SORMIC).*

PRINCIPAL RISKS 2023

The principal risks that were identified during the year are aligned with our business strategies and material matters, ensuring that we are delivering value in the most prudent and sustainable manner underpinned by our strong governance practices.

During the year under review, the retiring of COVID-19 risk as a principal risk was approved by the PCG Board pursuant to the World Health Organization's (WHO) announcement to end COVID-19 as a public health emergency in May 2023 as well as Malaysia's relaxation of its COVID-19 Standard Operating Procedures (SOP). Nonetheless, we remain committed to monitoring and responding to any new developments surrounding disease outbreaks and will review the risks accordingly.

In terms of new risks identified, PCG acknowledges that managing talent is very important as we are entrenched in a complex and dynamic environment that requires prompt adaptation and constant innovation to maintain a robust supply of niche talents that can support PCG's growth as well as create value for customers under challenging market conditions. Towards this end, steps have been taken to incorporate Talent Risk as an additional principal risk in order to focus on managing talent, capability development and seamless succession planning.

We have also assessed the risk related to feedstock and utilities by taking current and future challenges that could affect the reliability of supply for our plant operations, into consideration. Therefore, we escalated this risk to a high risk.

high risk medium/low risk

H HEALTH, SAFETY AND ENVIRONMENT

Exposure to HSE incidents is an intrinsic expectation in chemical manufacturing. Major HSE breaches in our plants may impact our people and business, with the highest impact arising from process safety incidents such as chemical spills and fire.

Impact to PCG :

- Physical harm to employees, contractors and/or nearby communities
- Pollution and environmental degradation surrounding operations
- Asset damage that leads to plant slowdown or shutdown
- Legal litigation and stop-work orders by regulatory bodies
- High recovery costs from injuries and accidents
- Impact on PCG's reputation as a public-listed company

Action Taken/Mitigations

- Implemented and followed through on the HSE strategies and initiatives
  - Tracked the compliance of the Felt Leadership Programme
  - Institutionalised Rakan HSE programme throughout the Group
  - Enforced 'Process Safety 8 Golden Rules' at PCG Operating Units (OPUs)
  - Executed Balance of Consequences (BoC) for HSE non-compliance
  - Strengthened the competency in Road Transport Operational Guidelines (RTOG) applications for the roles of PCG employees and transporters
  - Monitored plant operations within operating limits as set by the Department of Environment (DoE), Malaysia
- Implemented structured monitoring and reporting on HSE performance including reviewed effectiveness of post-acquisition plan for acquired companies, i.e. BRB and Perstorp

Movement : Maintain

Strategic Thrusts : OE CE

Material Matters :

Key Capitals : N H M I S F

Key Stakeholder Groups:

RISKS OVERVIEW

S STRATEGIC INVESTMENT

Growth projects and new business ventures carry risks such as low returns and loss of business opportunities. As we extend our value chain into specialty chemicals, these risks become more prominent.

Impact to PCG :	Action Taken/Mitigations
• Diminishing financial capital and shareholder returns • Unable to obtain margins as planned • Missed business opportunities and loss of customers • Inability to realise our business strategy to grow in specialty chemicals • High employee turnover and costs from talent acquisition	• **Extend Value Chain (EVC)** - Continuous scanning of robust project and technology pool through: o Expanding the growth with existing partnership or replicate technology acquired from mergers and acquisitions o Evaluate business model that provide best integrated value chain o Executed project implementation in line with project management systems and plans for Business and Operational Readiness (B&OR) • **Build Specialty Platform (BSP)** - Robust Post-Acquisition & Integration Plan (PAIP) process • **Create Opportunity Growth (COG)** - Continue collaboration with PETRONAS Capital Ventures - Robust opportunity screening assessment of VC start-up companies and Strategic Fit Assessment

Movement : Maintain

Strategic Thrusts : OE CE GE

Material Matters :

Key Capitals : N H M I S F

Key Stakeholder Groups:

P PROJECT EXECUTION

Project delivery issues that impede the construction, operation, commercialisation and stabilisation of new plants may impact our value capture. For instance, as the petrochemical plants in Pengerang Integrated Complex (PIC) gear up for commercialisation, it is critical to achieve operational and commercial readiness for smooth execution.

Impact to PCG :	Action Taken/Mitigations
• Missed business opportunity and unable to implement commercial activities as per planned • Loss of customers • Lower returns to shareholders and investors • Reputational damage based on poor project delivery	• Closely monitored project execution and operational readiness • Secured minimum volume on a term basis • Offtake products on equity or tender basis


Working together in ensuring project delivery excellence.

Movement : Maintain

Strategic Thrusts : OE CE GE

Material Matters :

Key Capitals : N H M I S F

Key Stakeholder Groups:

RISKS OVERVIEW

CY CYBERSECURITY RISK

We are at a high risk of cybersecurity threats due to a vulnerable Operating Technology (OT) environment coupled with enhanced digitalisation. Major infrastructure failure or cyber breaches may potentially cripple operations.

Impact to PCG :

- Breaches in stakeholders' information/ data
- Loss of critical business data
- Business disruption from critical system shutdowns
- Reputational damage and loss of stakeholder trust

Action Taken/Mitigations

- Established an Enterprise Cyber Security Governance Framework (ESSGF)
- Implemented Privilege Access Management (PAM) to ensure only authorised access allowed to the system
- Reinforced Cyber Defense via Enterprise-wide Incident Response Procedure (IRP), Security Operations Centre (SOC), Vulnerabilities Management, Data Leakage Protection, Forward Proxy and Network Access Control (NAC)
- Deployed Real-Time OT (RTOT) and OT Asset Management (OTAM) for all PCG facilities
- Structured Change Management and awareness programmes including the Human Firewall campaign, assessment and engagement via digital platforms such as myLearningX and SWITCH

Movement : *Maintain*
Strategic Thrusts : OE CE GE
Material Matters :
Key Capitals : F M I
Key Stakeholder Groups:

SS SUSTAINABILITY RISK

PCG is actively addressing sustainability-related risks, with the primary challenge rooted in the ineffective management of sustainability matters and stakeholders' expectations, especially during the transition towards making PCG a climate-resilient company. This deficiency may lead to increased operational costs, a diminished competitive edge, potential asset damages, and a negatively affected reputation. Ultimately, these factors can impact the overall sustainability of the business.

Impact to PCG :

- Higher operational costs due to the development of costly low-carbon technology and increased cost of borrowing
- Asset damage due to physical risks such as extreme weather, flood and lightning
- Exposure to litigation, penalties and fines
- Loss of market share due to shifts in customer preferences
- Diminishing interest from investors and other financiers
- Reputational damage and loss of stakeholder trust

Action Taken/Mitigations

- Identified decarbonisation initiatives to existing assets such as operational optimisation and undertook studies on adoption on low carbon technology
- Developed and operationalisation of New Plastics Economy (NPE) agenda
- Applied Internal Carbon Price (ICP) for all new projects
- Conducted Life Cycle Assessment (LCA) for all key products
- Conducted detailed physical and transition climate risk assessments
- Conducted human rights assessment with key contractors and closed gaps from the findings
- Continuous monitoring on potential human rights issues for PCG Operation and supply chain
- Aligned with major sustainability governance framework
- Strategised Crisis Management Plan (CMP) as well as Business Continuity Management (BCM) and other relevant response strategies

Movement : *Maintain*
Strategic Thrusts : OE CE GE
Material Matters :
Key Capitals : N H M I S F
Key Stakeholder Groups:

RISKS OVERVIEW

T TALENT RISK

Unavailability of niche talents and ineffective retention programme, knowledge transfer and internal capability development could derail realisation of PCG growth agenda.

Impact to PCG :

- Unrealised business opportunities
- Business operations disruptions
- Failure to transition "know-how" into PCG talent
- Value leakages due to negligence/ ineffective decision-making
- Commercial value exposure
- Ineffective implementation in overall governance
- Operational and HSE risk leading to low performance and impact company reputation

Action Taken/Mitigations

- Implemented cross mobility and talent development programmes across PCG, focusing on niche areas such as Research and Development (R&D), marketing, sustainability, and project management
- Implemented capability development programmes encompassing functional and leadership to equip talent with the skills and knowledge to drive business growth
- Implemented retention and knowledge transfer programmes to retain key talent and transfer of critical knowledge across PCG
- Conducted succession planning for critical positions
- Engaged external experts to facilitate M&A exercises including knowledge transfer and capability enhancement

Celebrating our Long Service Award recipients.

Movement : New Risk

Strategic Thrusts : OE CE GE

Material Matters :

Key Capitals : N H M I S F

Key Stakeholder Groups:

F FEEDSTOCK AND UTILITIES

Our production plants require a reliable supply of feedstock and utilities to keep running. The continuity of our plants requires a consistent, timely and significant supply of feedstock and utilities.

Impact to PCG :

- Higher feedstock and utilities cost reducing PCG's profitability
- Utilities supply reliability
- Temporary shutdown of PCG plants
- Prolonged plant slowdown impacting plant integrity
- Inability to meet contractual obligation with customers
- Reputational damage and loss of stakeholder trust

Action Taken/Mitigations

- Renewal of feedstock and utilities contracts to ensure PCG remains competitive
- Focused intervention on feedstock and utilities supply availability and reliability
- Implemented Enterprise Optimisation (EO) analysis to assist value-driven decision making
- Participated in feedstock and product planning integration and coordination platforms
- Monitored projects that drive efficiency of feedstock consumption
- Implemented action items identified through Root Cause Failure Analysis (RCFA) for previous utilities incidences

Movement : Increase

Strategic Thrusts : OE CE

Material Matters :

Key Capitals : N H M I S F

Key Stakeholder Groups:

RISKS OVERVIEW

M MARKET RISK

Adverse market conditions leading to thinning margins, posing challenges to business sustainability.

Impact to PCG :

- Loss of market share, demand and customer
- Potential plant slowdown/shutdown due to high inventory or negative margin
- Business portfolio minimisation leads to business divestment
- Lower shareholder returns due to poor financial performance

Action Taken/Mitigations

- Maximised netback through geo sales mix, sales channel mix and sales contract mix
- Added value through product improvement or new product development
- Improved value proposition for local distribution in overseas subsidiaries
- Optimised cost to serve by more co-loadings and having more tankages to create higher value to customers
- Reviewed cost position and built up competitiveness through product diversification

Movement : Maintain | Strategic Thrusts : OE CE GE | Material Matters : | Key Capitals : N H I S F | Key Stakeholder Groups:

O OPERATIONAL RISK

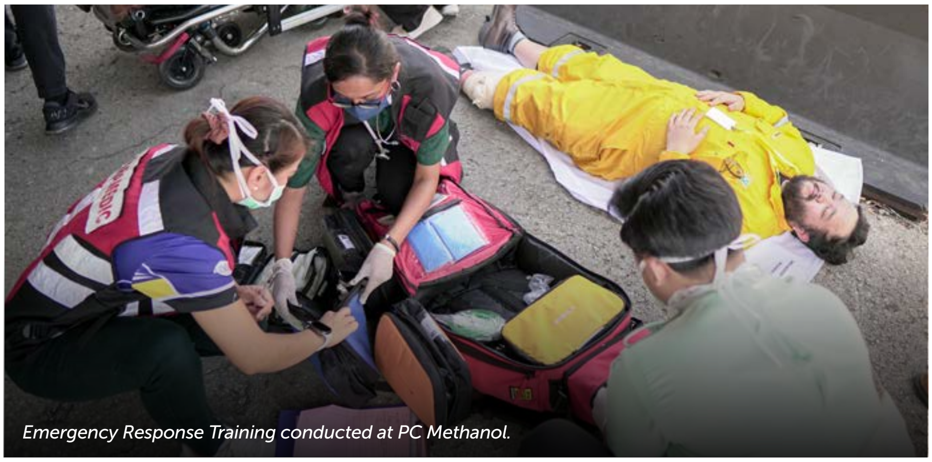
Our highly integrated operations expose our plants to an array of risks, as the plants are highly dependent on each other. The planning and execution of operation and maintenance activities will also significantly impact the value chain if not properly managed, as a failure of one or more plants in the value chain will create a knock-on effect.

Impact to PCG :

- Loss of production volume
- Increase in maintenance costs, reducing PCG's profitability
- Inability to meet customers' demands
- Reputational damage and loss of stakeholder trust

Action Taken/Mitigations

- Implemented operation management, asset life study, management of equipment issues and plant reliability threat programmes to optimise asset reliability and equipment performance
- Conducted regular maintenance and inspection programmes to minimise the risk of equipment failure and unplanned shutdowns
- Applied our human rights commitment to all employees, contractors and any third parties performing work on behalf of the Group
- Complied with all relevant labour laws that protect the right of employees, as well as provide competitive salaries and benefits
- Activated Business Recovery Plan (BRP) and Business Continuity Plan (BCP) for cases with prolonged interruption



Emergency Response Training conducted at PC Methanol.

Movement : Maintain | Strategic Thrusts : OE CE | Material Matters : | Key Capitals : N H M I S F | Key Stakeholder Groups:

RISKS OVERVIEW

TA PLANT TURNAROUND RISK

Ineffective execution of plant turnarounds lead to HSE, schedule, cost, and quality issues affecting plant operations as well as overall integrated product value chain and delivery to customers.

Impact to PCG :

- HSE incidents including Lost Time Injury (LTI) and process safety
- Inability to meet customers' demands
- Loss of production volume
- Increase in turnaround costs
- Reputational damage and loss of stakeholder trust

Action Taken/Mitigations

- Reviewed turnaround scoping and equipment criticality to minimise manpower and resources
- Executed turnaround intervention strategies, developed contingency plans and expedited material delivery
- Intensified and conducted compliance monitoring on turnaround governance requirements
- Recruited experienced manpower for effective turnaround execution
- Implementation of HSE standardisation programme supported by the application of alternative technology to minimise HSE exposure and improve quality of work

A safety briefing session was conducted for both PCG employees and contractors as part of PC Olefins, Glycols and Derivatives plant turnaround.

Movement : Maintain

Strategic Thrusts : OE CE

Material Matters :

Key Capitals : N H M I S F

Key Stakeholder Groups:

R REGULATORY RISK

Breach of five critical legal areas – Sanction, Competition, Ethics and Integrity, Export Control, Data Privacy – resulting in reputational damage and significant financial loss.

Impact to PCG :

- Non-compliance costs arising from penalties, summons and/or imprisonment
- Legal action from affected stakeholders
- Reputational damage and loss of stakeholder trust
- Reduced profit and loss of business or market share

Action Taken/Mitigations

- Implemented PETRONAS Legal Compliance Framework
- Strengthened Anti-Bribery and Integrity practices via ISO 37001: 2016 Anti-Bribery Management Systems (ABMS) certification by Standards and Industrial Research Institute of Malaysia (SIRIM)
- Implemented Guidelines on Adequate Procedures based on TRUST principles for Corporate Liability
- Adhered to PETRONAS' Human Rights Commitment, which is in line with the United Nations Guiding Principles on Business and Human Rights
- Conducted periodic engagements with local authorities, service providers and customers on laws and regulation updates
- Updated legal register to reflect new regulatory requirements
- Conducted regular communication on business activities to ensure constant compliance
- Performed audit and assurance to evaluate the adequacy, effectiveness and compliance

Movement : Maintain

Strategic Thrusts : OE CE GE

Material Matters :

Key Capitals : N H M I S F

Key Stakeholder Groups:

RISKS OVERVIEW

OPPORTUNITIES

PCG expresses confidence that the implementation of the outlined risk management measures will not only serve to mitigate risks but also pave the way for sustainable growth and heightened business opportunities. These strategic measures are anticipated to seamlessly align PCG with its established direction and strategies, thereby facilitating the realisation of its overarching business goals.

Despite the challenges posed by the identified risks, PCG remains adept at identifying opportunities within the dynamic business landscape as follows:

- Venturing into specialty chemicals to expand market share and foster synergies through strategic M&A
- Exploring new markets and diversifying product applications to enhance business resilience and foster continuous growth
- Initiating circular economy projects and sustainability initiatives, underscoring PCG's commitment to environmental responsibility and long-term sustainability
- Investing in cutting-edge technologies to maintain a competitive edge and drive innovation, ensuring PCG stays at the forefront of technological advancements
- Repositioning PCG as an attractive workplace that champions diversity, equity, and inclusion, offering opportunities for talent upskilling and reskilling

EMERGING RISKS

PCG continuously scans the industry environment using the Political, Economic, Social, Technology, Environment, Legal (PESTEL) analysis framework alongside input from our engagements with stakeholders to identify emerging risks and economic, environmental, and social topics that might substantially affect the company's ability to create value over the medium and long term.

The identification of these emerging risks plays a crucial role in PCG's proactive risk strategic planning efforts. This proactive approach aims to either minimise the adverse effects of emerging risks or capitalise on potential opportunities they may present. Failing to effectively manage these emerging risks could result in heightened operational costs, increased financial losses, and substantial reputational damage, all of which could negatively impact the sustainability of our business.

The Board and the management team actively monitor emerging risks, encompassing areas like the environmental, technological, and geopolitical, along with their corresponding mitigation strategies, with the aim of safeguarding the business.

ENVIRONMENTAL

Decarbonisation : Disorderly low carbon and circular economy transitions

The risk associated with decarbonisation presents challenges for PCG arising from a misalignment between stakeholders' expectations and actual implementation, spanning policies, and investment affordability. In expediting the transition, the challenge also include inadequacies in the Malaysian ecosystem for decarbonisation, economic viability concerns, technological maturity, and policy inconsistencies.

Impacts

- Heightened operational costs
- Loss of market share to sustainability-embracing competitors
- Loss of trust that leads to reputational risk

Response

- Establish robust low-carbon growth strategies
- Conduct carbon footprint assessments
- Drive readiness for transition including processes, governance and capability
- Advocate for regulatory collaboration

Opportunity - Broader market for sustainable products and potential collaboration with key stakeholders to drive PCG's sustainability journey.

TECHNOLOGICAL

Digital : Inability to capitalise the growth in AI technologies resulting in opportunity loss

PCG faces the risk of failing to harness the growth in AI technologies resulting in missed opportunities. Embracing digitalisation is pivotal for enhancing business competitiveness and efficiency. The potential threats posed by Generative AI (GAI) involving data privacy breaches, including unintentional uploads of confidential information and the creation of digital twins impersonating personnel.

Impacts

- Development of malware and digital twins for phishing and social media scam
- Exposure to Personal Data Protection Act (PDPA) and General Data Protection Regulation (GDPR) breaches
- Business disruption arising from cyber attack

Response

- Increase awareness and implement best practices in AI usage
- Implement stringent measures and strengthen data leakage protection controls
- Develop integrated digital platforms to cater end-to-end supply chain as part of customer centric initiatives

Opportunity - Improve operational efficiency leading to increased value creation, enhanced customer experiences, minimized safety risks and adherence to regulatory requirements.

GEOPOLITICAL

Constant global geopolitics uncertainty may pose challenges to PCG's business sustainability.

The constant uncertainty in global geopolitics poses significant challenges to PCG's business sustainability, impacting both profitability and operational continuity. This uncertainty manifests through factors such as commodity price volatility, alterations in energy prices and trade flows, softened demand for petrochemical products, and a surge in business costs.

Impacts

- Higher overall cost of doing business
- Disruption of supply chain and logistics arrangements

Response

- Cost optimisation efforts across energy, production, procurement, logistics arrangements and prioritisation of planning and delivery for key market
- Rigorous monitoring on macroeconomic indicators
- Established Risk International Database (RID) to provide countries' information and business landscapes where PCG operates

Opportunity - Increase market share in Southeast Asia and Asia Pacific by leveraging on PCG's strategic location and diversified products offering. Additionally, this will potentially attract more investment of major corporations to collaborate with PCG.