

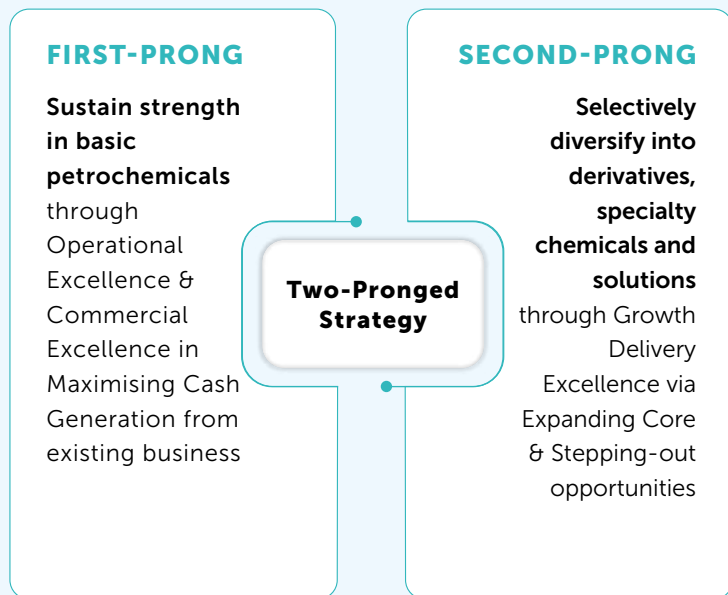
# STRATEGY REVIEW

The Two-Pronged Strategy was developed to ensure PCG’s competitiveness, resilience and adaptability. This has been particularly crucial over the last couple of years, given the challenges posed by the pandemic alongside an already dynamic and swiftly evolving landscape and industry. Centred on delivering sustainable value to stakeholders, this strategy aligns with our growth aspirations while accounting for external macro-environment, risks, opportunities and material matters.

## TWO-PRONGED STRATEGY

Our strategy propels the Group towards achieving our vision of becoming The Preferred Chemical Company Providing Innovative Customer Solutions.

### OUR STRATEGY



### OUR STRATEGIC THRUSTS

To further build resilience against market volatility and emerging risks, this strategy expands our value chain from basic petrochemicals into derivatives and specialty chemicals and solutions. Driving our strategy’s success are the three strategic thrusts, implemented through initiatives driven by performance objectives.

#### OE OPERATIONAL EXCELLENCE

Achieve sustainable world-class plant performance focusing on:

- HSE Excellence
- Plant reliability & efficiency
- Plant turnaround excellence
- Optimise value chain
- Digital transformation & solutions

#### CE COMMERCIAL EXCELLENCE

Increase value by looking through our customers’ lens focusing on:

- Customer focus
- Sustain and enhance market position
- Marketing and sales capabilities
- Innovative solutions
- Innovation culture

#### GE GROWTH DELIVERY EXCELLENCE

Diversify into higher value-adding products focusing on:

- Extend value chain
- Build specialty platform
- Create optionality for growth
- Sustainability at the core

	Basic Petrochemicals	Derivatives	Specialty Chemicals
Global	1		2
Regional			
Local			


# OPERATIONAL EXCELLENCE

At PCG, Operational Excellence is core to our ability to sustain resilient operations. It prioritises the health and safety of our people, the reliability of our plants and the efficiency of our processes to support PCG’s business operations and sustainability journey.

We continued our unwavering focus on further embedding PCG’s generative HSE culture into our operations, encouraging employees to take ownership of safety and health issues and be empowered to identify and report potential hazards and risks. We also achieved a key milestone in our sustainability journey with a total reduction of 146,100 tCO<sub>2</sub>e emissions in 2023.

This year, we also faced a range of internal and external challenges that impacted our plant reliability and we acknowledge these challenges as we worked diligently to enhance our operational resilience. In mitigating these reliability challenges, we embraced a proactive approach to address potential threats by seizing opportunities during shutdown activities at our plants to eliminate plant issues. We also demonstrated excellence in the successful execution of two planned turnarounds and six scheduled shutdowns in 2023. These endeavours, necessitating substantial time and resource investments, have significantly contributed to better operational performance.

## 8 Golden Rules of Process Safety




**Stay within safe operating limits**  
Pastikan berada dalam had operasi yang selamat



**No approval, no bypass**  
Tiada kelulusan, tiada pintasan




**Process upset: Stabilise - Slow down - Shut down**  
Gangguan proses: Stabilkan - Perlahankan - Berhentikan




**When in doubt, give a shout!**  
Jika dalam keraguan, minta bantuan!




**Comply to 'Management of Change'**  
patuhi 'Pengurusan Perubahan'



**Scan for hazards before you start**  
Kenal pasti bahaya sebelum mula



**Maintain safety critical elements**  
Selenggara unsur keselamatan yang kritikal



**Be trained, be accountable to do it right**  
Jalani latihan, bertanggungjawablah untuk laksanakan dengan betul

Progress and Outcomes	Challenges	Mitigation/Response
<div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; font-size: 10px; margin-bottom: 10px;">HEALTH, SAFETY AND ENVIRONMENT EXCELLENCE</div> <ul style="list-style-type: none"> <li>Achieved a lower Lost Time Injury Frequency (LTIF) of 0.09 and recorded zero major fire incidents</li> <li>Achieved a reduction of 51,600 tCO<sub>2</sub>e from operational optimisation and 94,500 tCO<sub>2</sub>e from the purchase of renewable energy via bundled Renewable Energy Certificate (REC)</li> <li>Recorded zero incidents of regulatory non-compliance due to strengthened assurance programme</li> </ul>	<ul style="list-style-type: none"> <li>Challenges arise from the increased workload associated with heavy turnaround and maintenance activities, resulting in demand for more manpower compared to normal operational days, which pose a safety risk</li> </ul>	<ul style="list-style-type: none"> <li>We intensified our campaign on Zero is Possible in all aspects to drive better HSE performance in our daily operation</li> <li>For turnarounds, we implemented PCG HSE Turnaround Standardisation and Best Practices Programme, learning from turnaround exercises in 2022. This standardisation has taken place in PC Ammonia and PC MTBE turnaround, as well as scheduled shutdowns at PC Glycols and PC Derivatives which translated into significant improvement in HSE performance</li> </ul>

## OPERATIONAL EXCELLENCE

	Progress and Outcomes	Challenges	Mitigation/Response
TURNAROUND EXCELLENCE	<ul style="list-style-type: none"> <li>Safely and successfully executed turnaround activities at PC Ammonia and PC MTBE as well as integrated plant shutdown at Kertih Integrated Petrochemical Complex (KIPC)</li> <li>Undertook proactive measures and executed successful mitigation actions which led to the deferment of planned maintenance activities at three of our facilities</li> <li>Intensified the usage of digital tools in managing turnaround execution encompassing HSE, security as well as integrity/quality activities</li> </ul>	<ul style="list-style-type: none"> <li>Managing integrated turnaround and maintenance activities at KIPC, which requires close coordination, resource planning and tight contractor management</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen engagement programme with Turnaround Main Mechanical and Maintenance Mechanical Static (TA4MS) contractor to address resource management, as well as improve overall turnaround quality</li> </ul>
RELIABLE PLANT PERFORMANCE	<ul style="list-style-type: none"> <li>Six Operating Units (OPUs) achieved Plant Utilisation above 90%: <ul style="list-style-type: none"> <li>PC Fertiliser Sabah</li> <li>PC Fertiliser Kedah</li> <li>PC Olefins</li> <li>PC Ethylene</li> <li>PC Polyethylene</li> <li>PC LDPE</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Unplanned shutdown and operational challenges, mainly at PC Methanol, ABF, PC Aromatics and PC MTBE</li> </ul>	<ul style="list-style-type: none"> <li>Extra focus on plant reliability interventions at ABF and PC Methanol via respective OPUs reliability improvement strategies namely, ABF Reliability Improvement Strategy &amp; Execution (ARISE) and PC Methanol Reliability Improvement &amp; Enhancement (PRIME)</li> <li>Established a platform to support the formation of an expert network and working group across PCG to provide technical experts with a dedicated channel for discussion and immediately identify the best solutions to any issues arising from any facility within the Group</li> </ul>
RELIABLE FEEDSTOCK AND UTILITY SUPPLY	<ul style="list-style-type: none"> <li>Continued collaboration between PCG and Feedstock supplier resulting in: <ul style="list-style-type: none"> <li><b>Additional Ethane Taskforce (AET):</b> enabled solid ethylene production levels of above 1 million MT per annum</li> <li><b>Additional Methanol Team (AMT):</b> additional 40 mmscfd of gas supply availability that has provided more flexibility for operation and optimisation</li> </ul> </li> </ul> <p>Addressed operational challenges associated with utilities' disruptions at PC Methanol</p>	<ul style="list-style-type: none"> <li>Feedstock disruption stemming from maintenance activities at the Sabah-Sarawak Gas Pipeline (SSGP) which affected operations at PC Fertiliser Sabah and PC Methanol which resulted in significant volume loss</li> <li>Utilities' supply disruptions at Kertih facilities</li> </ul>	<ul style="list-style-type: none"> <li>Continued to actively participate in AET and AMT in maximising feedstock availability through close collaboration between PCG and feedstock suppliers</li> <li>Continued to involve all stakeholders in aligning maintenance and shutdown schedule strategies to collectively address reliability concerns</li> <li>Implementation of internal water recycling initiative, known as Project Process Condensate Recovery</li> </ul>

# OPERATIONAL EXCELLENCE

DIGITALISATION JOURNEY

## Progress and Outcomes

- Progressive utilisation of Asset Performance Management (APM) applications and value creation realisation across PCG OPU's
- Expanded the scope of the Plant Facing Analytics (PFA) programme that utilises advanced analytics to enhance Overall Equipment Effectiveness (OEE). These initiatives resulted in cost savings of RM7.5 million
- Higher PIVOT Descriptive Analytics (PIVOT DA) utilisation across PCG OPU's, which has improved performance data monitoring by leveraging data driven insights for safer and more reliable plant operations

## Challenges

- The different rates of implementation across various facilities due to prioritisation of the implementation plan based on key activities at each facility, such as turnaround, planned and unplanned shutdown

## Mitigation/Response

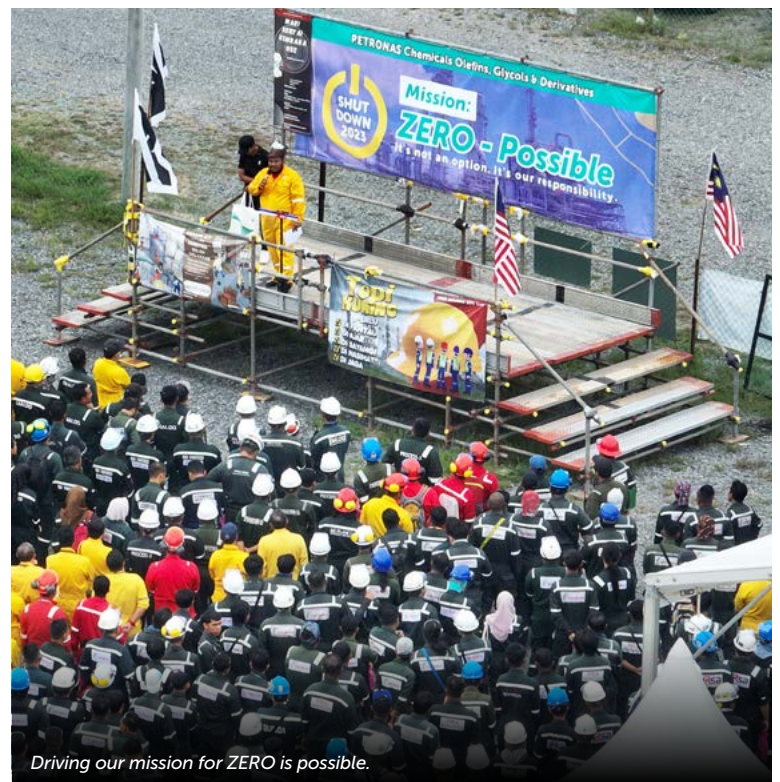
- The realignment of implementation plan and strategic prioritisation
- To optimise the utilisation of digital tools to better manage our plant reliability and unlock more value creation



## OUTLOOK

In our efforts to achieve a plant utilisation rate of above 90%, we are committed to implementing a range of initiatives that will both strengthen our foundations and enhance our operational performance going forward. This includes:

- Continued implementation of the PCG HSE Turnaround Standardisation and Best Practices Programme in 2024 and to expand it to maintenance activities and normal operations as it has proven to be effective in 2023
- Focus on achieving HSE generative culture - a culture where employees are encouraged to take ownership of safety and health matters and are empowered to identify and report potential hazards and risks. It is a culture of continuous improvement where everyone is responsible for promoting and maintaining a safe and healthy work environment
- Strengthening plant reliability management and monitoring the closures through vigorous plant turnaround and maintenance activities in 2024 through 2026. Leveraging structured sharing on lessons learnt to the frontliners to ensure we maintain a culture of learning, while empowering the frontliners with the insights needed to excel in their roles and to drive better plant performance
- Execute sustainability projects in line with PCG Sustainability Agenda. This includes plant efficiency improvement and flare reduction programme, through the implementation of the Kertih Site-wide Energy Review (SER) and the utilisation of Advanced Process Control (APC)



# COMMERCIAL EXCELLENCE

The entire chemicals industry has endured a challenging 2023 characterised by lower margins, increased competition and softer demand. In addition to navigating this difficult market, PCG experienced some unexpected reliability issues that affected sales volume availability. Despite this, PCG was steadfast in its response and employed its Commercial Excellence strategies to mitigate some of the impact on the business. By putting our customers first, maximising value and focusing on safety, we maintained a high Order Fulfilment Reliability (OFR) rate and favourable customer feedback to deliver value for our stakeholders.

	Progress and Outcomes	Challenges	Mitigation/Response
SALES PERFORMANCE	<p><b>Ensured timely product delivery to customers</b></p> <p>OFR rate</p> <p>95%</p> <p>95%</p> <p><b>Maintained higher customer satisfaction against competitors</b></p> <p>Customer Satisfaction Survey (CSS) score</p> <p>3.5 / 4.0</p> <p>3.5 / 4.0</p> <p><b>Maintained favourable customer feedback</b></p> <p>Customer Feedback</p> <p>5.5 sigma</p> <p>5.4 sigma</p> <p>2023 2022</p>	<ul style="list-style-type: none"> <li>Internal reliability issues; multiple unplanned plant shutdowns affecting sales volume availability</li> <li>Oversight of customer relationships may result in loss of customer loyalty</li> <li>Bearish market sentiment on slow global economic growth amid threat of additional supply from new capacity/ expansion</li> <li>Tight vessel availability across the chemical segment, leading to higher vessel time charter rate</li> <li>Intensified competition especially from Chinese suppliers who offer cost-competitive options</li> <li>High energy cost that affects our production and profit margin</li> </ul>	<ul style="list-style-type: none"> <li>Planned and secured strategic sourcing volume with identified partners to fulfil order commitments</li> <li>Optimised sales portfolio mix and maintained high pricing excellence against market benchmark to maximise value</li> <li>Established Customer Delivery Excellence (CDEx), a digital platform that provides visibility to customers on delivery updates</li> <li>Collaborated on product co-creation opportunities with selected customers</li> <li>Delivered customer-centric value propositions that meet customer needs</li> <li>Ensured close engagement with vendors/ service providers to minimise operational disruptions and maintain reliable supply chain</li> <li>Sought co-loading opportunities to ensure timely delivery to customers</li> <li>Launched targeted initiatives to recapture lost market share and solidify our competitive position</li> <li>Streamlined operations and sales processes to maximise revenue and unlock efficiencies</li> <li>Implemented procurement savings to achieve cost reduction target</li> </ul>
DRIVING PRODUCT SAFETY & SUSTAINABILITY	<ul style="list-style-type: none"> <li>Sustainable supply chain assessment through EcoVadis, a globally recognised assessment platform for business sustainability in the areas of environmental impact, labour and human rights, ethics and procurement practices</li> <li>Perstorp has been honoured with the EcoVadis Gold Medal and BRB with the Silver Medal in 2023</li> <li>100% Life Cycle Assessment (LCA) completion for key products</li> <li>Conducted Product Stewardship sessions</li> </ul>	<ul style="list-style-type: none"> <li>Each category of assessment has complex requirements in terms of data and documentation</li> <li>Customers and end-users have modest understanding on product safety</li> </ul>	<ul style="list-style-type: none"> <li>Identified a roadmap for EcoVadis Certification for commodity business and engaged internally with multiple relevant parties to assist to meet the assessment requirements</li> <li>Conducted engagements and training sessions with downstream users</li> <li>Educated end-users on a more frequent basis on PCG's aspiration towards NZCE 2050</li> </ul>



# COMMERCIAL EXCELLENCE



Japan



China



Philippines



Thailand



Vietnam



Indonesia

### Progress and Outcomes

**SUSTAIN LAND TRANSPORT SAFETY**

- Remodelling of Road Transport Operational Guidelines (RTOG) to include empowerment so that HSE practices can be sustained and self-regulated by transporters
- Conducted 12 Felt Leadership sessions with transporters, in addition to a Leadership Conversation and Transporter Forum
- Conducted three Defensive Driving Training (DDT) sessions for sales personnel

### Challenges

- The remodelled RTOG consists of 14 modules, which makes it a massive undertaking to ensure effective implementation without compromising on HSE performance
- Maintaining good practice among transporters and ensuring programmes conducted are effective
- Creating awareness on the importance of DDT to the target group

### Mitigation/Response

- Rolled out the remodelled RTOG on a pilot basis to two transporters to ensure any gaps/improvements required will be immediately addressed without adversely affecting the day-to-day operations
- Ensured meaningful engagement with transporters with the presence of top management during Felt Leadership sessions
- Secured leadership commitment for staff enrolment in DDT

**ADDRESS CUSTOMERS PAIN POINTS AND OPTIMISE VALUE**

Launched new innovative products in 2023 prioritising sustainability and enhanced performance to address growing customer demand. The key product highlights are:

- Our Enhanced Product Development programme produced Ethonas SF401 – a spacer fluid surfactant for oil & gas applications that was commercialised in March 2023. This product meets market needs for an effective, sustainable and cost-effective solution for removing unwanted liquids during drilling
- Perstorp launched new Pro-Environment products which are Neeture™ N100, Eviron™ T100 and 2-EH Pro 100, renewable polyols that reduce carbon footprint
- BRB launched 12 new products in personal care, construction and high-performance lubricant additives

- Customer requires longer trial period for product evaluation prior to acceptance. Current market situation is soft due to low demand post COVID-19 crisis
- Shifting customer preference towards sustainable products takes time. In certain regions like Asia, the demand is still limited due to the preference for lower cost products
- Lack of awareness about how to apply the new products
- Customers require samples and more test results before they can be convinced to switch

- Continued reaching out to potential customers in targeted markets and developing co-created application solutions to address customer's pain points
- Continued promotion of Pro-Environment solutions to help customers meet their sustainability targets
- Maintained close relationship with customers to educate and create awareness about new products
- Provided technical support to help with formulations



Addressing growing customers' demands through product innovation and co-creation.

## COMMERCIAL EXCELLENCE

Progress and Outcomes	Challenges	Mitigation/Response
<p><b>DIGITALISATION JOURNEY</b></p> <ul style="list-style-type: none"> <li>• Rolled out our new digital initiative, PETRONAS360 (P360), to pilot customers in November 2023. P360 enables customers to access their own self-service portal to view their transaction details with PCG, account statement and check on real-time delivery status through integration with CDex. In addition, it offers access to online spot volume offers, viewing and enquiring about other PETRONAS products, downloading product regulatory sheets, and sending enquiries and feedback to PCG</li> <li>• In March 2023, e-chemical management system (e-chems) was rolled out, incorporating Raw Material Information Request (RAWMIR) to capture additional information through suppliers. Through this process, whenever a buyer initiates the procurement of a chemical, the platform will automatically check and send a request to material suppliers to fulfil the required RAWMIR disclosures</li> </ul>	<ul style="list-style-type: none"> <li>• To ensure seamless integration between our various systems as well as successful data migration and accuracy</li> <li>• Adoption of new features rollout which has changed how employees conduct sales</li> <li>• This new process overcomes the previous manual process where we had to identify new raw materials and supplier information before dispatching the RAWMIR document through email</li> </ul>	<ul style="list-style-type: none"> <li>• Project teams from all stakeholders involved worked together to ensure a smooth integration. Extensive testing that included System Integration Testing (SIT) followed by Business Validation Testing (BVT) was conducted to ensure system readiness before going live</li> <li>• Implemented Change Management activities that included group training, one-on-one training, system support clinics, gamification and rewards</li> <li>• Currently testing at the production stage to ensure smooth integration</li> </ul>



## OUTLOOK

PCG will continue to strategically advance its operations and expand its market presence through the development of new and relevant products and services, ensuring alignment with evolving sustainability standards and customer-centric innovation:

- Commercialise products from Pengerang Integrated Complex (PIC) and increase technical support to enable customers to tune the PIC product specifications to their requirements, for example, polymer products (Polyethylene Pipe and Bi-axially Oriented Polypropylene [BOPP])
- Continue to work closely with customers through the Enhanced Product Development (EPD) programme to create innovative and relevant products such as NPK fertilisers with organic content from chicken manure to enhance circularity in the agriculture industry
- Continue to strengthen our product distribution with the implementation of the new tank warehouse in Malaysia (Johor) and China (Fujian and Taizhou)
- Commence sales and marketing of methanol volume from Sarawak Petchem, which will have a plant capacity of 1.7 KTPA and 100% offtake by PCG
- Route-to-market strategy implementation for upcoming new products Melamine and Maleic Anhydride (MA) into target countries for commercial readiness, which are targeted to be available from our facilities in 2025
- With rising sustainability requirements across markets, we will also support customers' business growth through low-carbon, sustainable solutions, which aligns with PCG's Sustainability Agenda. Key initiatives include shifting from single-use plastics to more sustainable applications like High Density Polyethylene (HDPE) blow moulding grades, offering customers sustainable surfactants such as natural-based Fatty Alcohol Ethoxylates (FAE) products with Renewable Carbon Index (RCI), and providing essential CO<sub>2</sub> data for their renewable calculations
- Commercialise the production and sales for Pentaerythritol (Penta) and ISCC PLUS certified Vxstar™ M40 from the Sayakha facility in India, aimed at strengthening our presence in the APAC region while introducing sustainable product alternatives, including our Pro-Environment solutions, to our Asian customers
- Specialty Chemicals continues to focused on strengthening its existing strongholds in Europe and America while expanding its reach in the growing APAC market
- Specialty Chemicals will reinforce its presence in Europe and America and expand into the APAC market, while prioritising sustainability and customer-centric innovation to drive its transformative strategy and establish itself as a global leader in the specialty chemicals market

# GROWTH DELIVERY EXCELLENCE

Our growth performance has remained stable over the years, supported by our strong financial position. This has enabled us to explore opportunities to venture into new areas and achieve long-term growth affording us opportunities to venture into new areas and achieve long-term growth. Through Growth Delivery Excellence, we further diversify our product portfolio into higher value-adding sustainable products, such as derivatives, specialty chemicals and solutions. As a result, we are able to meet the changing demands of our customers and future-proof our business. For example, through extension of our value chain, we built a specialty ethoxylates and polyether polyols plant in Kertih, Terengganu and melamine plant in Gurun, Kedah. Through BRB and Perstorp, we anchored our specialty platform with the objective to grow further in the specialty chemicals space. Our focus on striving towards Sustainability at the Core also prompted us to create value by embracing the circular economy to enable a low-waste future, stewardship of natural resources and minimising our carbon footprint.

## Progress and Outcomes

### EXTEND VALUE CHAIN

- Achieved ready for start-up (RFSU) phase and obtained on-spec products for the following projects:
  - Specialty ethoxylates and polyether polyols plant in Kertih, Terengganu, and
  - Nitrile butadiene latex plant in Pengerang, Johor
- Ongoing projects under execution:
  - Melamine plant in Gurun, Kedah, and
  - Expansion of 2-EHA plant in Gebeng, Pahang

Both are currently in the construction stage and progressing as planned. We are well on track for the plants to be in RFSU phase in the second half of 2024.

- Achieved Final Investment Decision (FID) to fully acquire the Maleic Anhydride (MAn) plant in Gebeng, Pahang, from BASF PETRONAS Chemicals Sdn. Bhd. (BPC), and to upgrade and rejuvenate the facilities to produce refined MAn



Nitrile butadiene latex plant in Pengerang Integrated Complex, Johor.

### BUILD SPECIALTY PLATFORM

- With the acquisition of Perstorp, the team is executing the Post-Merger Integration (PMI) plan to identify value creation projects and achieve alignment and synergies between PCG and Perstorp. Perstorp has also completed its new Pentaerythritol (Penta) and ISCC PLUS certified Voxtar™ M40 plant in Sayakha, India, and is making good headway with Project Air in Sweden
- BRB continued to strengthen its presence in Europe and Asia with capacity expansion and the establishment of new marketing and sales offices
- Actively pursuing a transformational growth strategy to be a global leader in specialties in selected markets

**R** For more details, please refer to Specialty Chemicals segment on pages 27 to 31.

### CREATE OPTIONALITY FOR GROWTH

- Continue with customer validation and product quality improvements for Bio-MEG
- Achieved the first drop from bio-based emollient pilot plant
- Developing a global research and development network including a new Technology and Innovation Centre in Malaysia to increase the level of innovation sophistication in key markets and enabling localised solutions
- Continue to assess and evaluate potential disruptive technologies from start-up companies for partnership and investments

### SUSTAINABILITY AT THE CORE

- Reached the FID to construct advanced chemical recycling plant in Pengerang, Johor
- Active assessments of recycling projects to enhance plastic waste management ecosystem in Malaysia and various opportunities to diversify feedstock for a sustainable portfolio
- Within Perstorp, we have a portfolio of Pro-Environment products and solutions. We are dedicated to expanding our offerings to the customers



## GROWTH DELIVERY EXCELLENCE

Challenges	Mitigation/Response
<p><b>STRATEGIC INVESTMENT</b> Investments that are not aligned with PCG's strategic direction and may impact PCG's growth trajectory</p>	<ul style="list-style-type: none"> <li>Continuously scan potential and emerging technologies to enhance value of existing molecules or new types of feedstock</li> <li>Prioritised the investment portfolio to deliver the targeted value effectively</li> <li>Ventured into specialty chemicals where the margin is higher and less cyclical than commodities</li> </ul>
<p><b>PROJECT FEASIBILITY</b> Hyperinflation, rising costs, volatility of product prices and increased pressure on climate action can impede a project's feasibility</p>	<ul style="list-style-type: none"> <li>Ensured robust project economics through rigorous and thorough project evaluation and forecast</li> <li>Capitalised on our business intelligence and benchmark against the market and other key industry players</li> <li>Attracted suitable business partners and technology providers that offer the best competitive advantages</li> <li>Embedded sustainability as a prerequisite for projects from feasibility to commercialisation stage</li> </ul>
<p><b>PROJECT EXECUTION</b> Project delivery issues that impact the commercialisation or stabilisation of new plants may impact our ability to capture optimal value</p>	<ul style="list-style-type: none"> <li>Driven project execution, business and operation readiness for sanctioned projects effectively</li> <li>Ensured a comprehensive scope of the Engineering, Procurement, Construction and Commissioning (EPCC) contract</li> <li>Developed a clear route to market strategy and secured customers before project commercialisation</li> </ul>
<p><b>SUSTAINABILITY</b> Global awareness on climate change and circular economy increasingly shape customer demands for sustainable products and solutions, which may affect our business performance, reputation and long-term growth</p>	<ul style="list-style-type: none"> <li>Pursued sustainability-related projects based on circular economy principles</li> <li>Conducted feasibility assessments with consideration of sustainability dimensions for all growth projects</li> <li>Incorporated carbon abatement plan as part of project FID decision package</li> <li>Collaborated with innovative technology solution providers to build a sustainable portfolio</li> </ul>
<p><b>INNOVATION</b> Stepping out towards new technology may require a lengthy innovation period for business validation with a high uncertainty of success</p>	<ul style="list-style-type: none"> <li>Leveraging experience from past projects, expertise from BRB and Perstorp, new opportunities are assessed through PCG with specific criteria defined to improve probability of success</li> <li>Applied a standardised approach to validate and identify the right opportunity space for disruptive products and services where we focus on customers first rather than focusing on solution in the initial stage</li> </ul>
<p><b>MERGERS &amp; ACQUISITIONS (M&amp;A)</b> M&amp;A require huge capital expenditure where failure to deliver acquisition promises may have financial and reputational impact</p>	<ul style="list-style-type: none"> <li>Conduct a comprehensive due diligence process to assess the target company's financial health, operational efficiency and potential synergies with PCG</li> <li>Analyse the target market, competitor landscape and potential regulatory hurdles to assess the viability of the acquisition's post-merger success</li> <li>Develop contingency plans for potential challenges like integration difficulties, market fluctuations or regulatory hurdles</li> </ul>

## GROWTH DELIVERY EXCELLENCE



## OUTLOOK

Building on our growth momentum, the potential remains exciting and we will continue our intensified efforts to create value from more opportunities in our pipeline of projects while unlocking the potential from the circular economy.

**Extend Value Chain**

- Start commercial operations for three of our plants in 2024. The first being the specialty ethoxylates and polyether polyols plant in Kertih, Terengganu, and the second being the nitrile butadiene latex (NBL) plant in Pengerang, Johor, and the third being the melamine plant in Gurun, Kedah
- RFSU of the 2-ethylhexanoic acid (2-EHA) plant in Gebeng, Pahang, through our JV company, BASF PETRONAS Chemicals Sdn. Bhd. (BPC)
- Proceed with the construction phase of the newly sanctioned Maleic Anhydride (MA) and the advanced chemical recycling project
- Continue to mature several opportunities in our project pipeline which are at various stages of feasibility study

**Build Specialties Platform**

- Commercial operation for the Sayakha plant in 1Q 2024
- Continue Project Air feasibility study on sustainable methanol
- Pursue opportunities to leverage synergy between PCG and Perstorp and replicate technologies in Malaysia to serve the APAC market
- Pursue a transformational growth strategy to become a global leader in specialties

**Create Optionality for Growth**

- Realise PCG Global R&D Network aspiration, which will consist of a Technology & Innovation Centre (TIC) and multiple innovation hubs in major time zones and markets. This will enable PCG to increase the level of innovation sophistication in key focus markets, especially in the European and Asian regions. The construction of the TIC is to commence in 2024 and will be up and running by 2025
- Establish emollient esterification capability via a pilot plant-simulator reactor. With this, we can start developing new formulations and expand PCG's offering in the bio-based personal care portfolio

**Sustainability at the Core**

- Continue to progress with the construction of our newly sanctioned advanced chemical recycling plant
- Continue to assess waste-to-products technologies, converting plastic waste into recycled polymers under our New Plastics Economy (NPE) execution strategy
- Pursue sustainability-related growth projects as part of PCG Circular Economy initiatives, explore other technologies and implement carbon reduction efforts to achieve Net Zero Carbon Emissions by 2050
- Continue to expand Perstorp's Pro-Environment Solutions, derived from renewable or recycled raw materials, and offer the same quality in performance as its fossil fuel counterpart, to fulfil customer needs while embracing sustainability throughout the supply chain



Perstorp team members engaging in discussions for continuous business improvement.