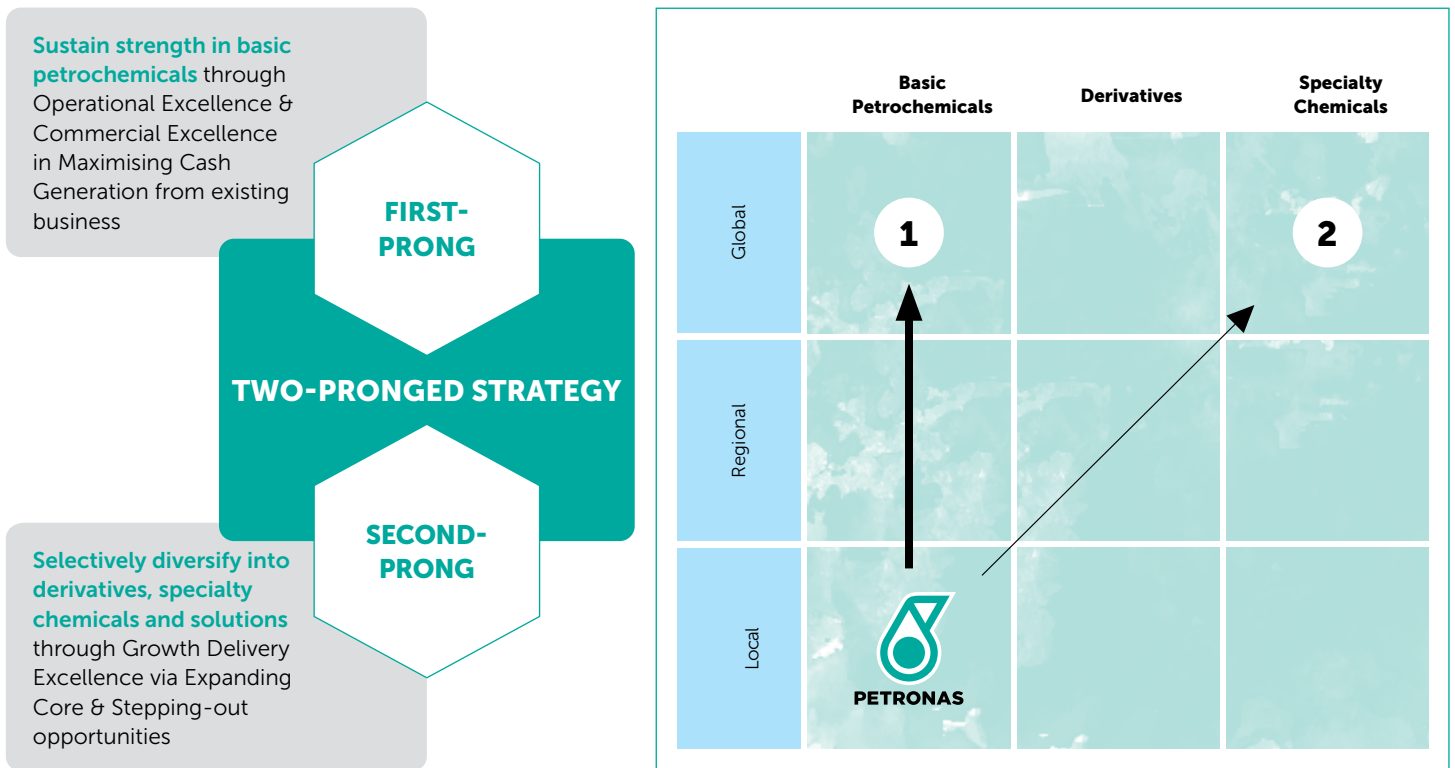


STRATEGIC REVIEW

In a dynamic and competitive industry, PCG's Two-Pronged Strategy is pivotal for ensuring resilience, adaptability and long-term growth. Designed to navigate shifting market landscapes and emerging global trends, this strategy positions us to capitalise on opportunities while mitigating risks in an increasingly sustainability-driven world. By aligning with stakeholder expectations and focusing on material matters, we remain committed to delivering value through innovation and operational excellence.

TWO-PRONGED STRATEGY

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



OUR STRATEGIC THRUSTS

To navigate market volatility and seize emerging opportunities, our strategy extends beyond basic petrochemicals to embrace derivatives, specialty chemicals and innovative solutions. This evolution enhances our resilience and positions us for long-term success. Central to the strategy are three core thrusts that drive its execution, each underpinned by clear performance objectives.

 OPERATIONAL EXCELLENCE	Achieve sustainable world-class plant performance focusing on: <ul style="list-style-type: none"> • HSE Excellence • Plant reliability & efficiency • Plant turnaround excellence • Optimise value chain • Digital transformation & solutions
 COMMERCIAL EXCELLENCE	Increase value by looking through our customers' lens focusing on: <ul style="list-style-type: none"> • Customer focus • Sustain and enhance market position • Marketing and sales capabilities • Innovative solutions • Innovation culture
 GROWTH DELIVERY EXCELLENCE	Diversify into higher value-adding products focusing on: <ul style="list-style-type: none"> • Extend value chain • Build specialty platform • Create optionality for growth • Sustainability at the core


OPERATIONAL EXCELLENCE

PCG's Operational Excellence initiatives were structured to ensure a resilient safe and sustainable foundation for all operations, guided by pillars that emphasise HSE excellence, reliability, digital transformation and efficient turnarounds. These initiatives are integral to PCG's long-term stability and align with broader sustainability and growth goals.


PCG has reinforced Health, Safety and Environment (HSE) excellence through a proactive safety culture, with leadership engagement empowering employees to take ownership of safety, identify risks and prevent incidents. In response to the fatality incident that occurred in August in Labuan, Malaysia we took immediate corrective measures to ensure the safety and well-being of all our employees. These measures include a company-wide safety stand-down, a comprehensive gap assessment for focused action and consultations with maintenance and subject matter expert teams to enhance our safety practices.

Expanded safety protocols and preventive measures have been introduced to support a secure work environment and protect employee well-being, establishing a robust foundation for long-term safety outcomes. We are committed to fostering a proactive safety culture and will continue to prioritise the health and safety of our workforce. To support plant reliability and performance, structured reliability programmes emphasised predictive maintenance, early issue identification and equipment resilience. Advanced digital tools enhanced operational predictability, enabling efficient maintenance scheduling and reducing environmental impact. Additionally, efforts to enhance turnaround quality were implemented to minimise disruptions, with effective contractor management and quality controls supporting consistent plant readiness across facilities.


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: Stabilikan - 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

HEALTH, SAFETY AND ENVIRONMENT EXCELLENCE

Progress of Key Initiatives

Recorded **one fatality, four Lost Time Injuries (LTI)** and **two major Loss of Primary Containment (LOPC)** in FY2024.

Achieve a reduction of **151 kilotonnes CO₂e** from operational improvement and **178 kilotonnes CO₂e** from the purchase of renewable energy via bundle Renewable Energy Certificate (REC).

Challenges	Mitigation/Response:
<p>Heavy turnaround and maintenance activities, resulting in demand for more manpower compared to normal operational days which poses a safety risk</p>	<ul style="list-style-type: none"> • Fatality <ul style="list-style-type: none"> - Strengthening our "Strive for ZERO, ZERO is Possible" programme for both employees and contractors. This includes establishing initiatives to increase awareness of personal safety and fostering a safe work culture. - Reinforcing the implementation of surrounding risk assessments prior to conducting any activities at sites. • Major LOPC <ul style="list-style-type: none"> - Enhance process safety risk visibility with Dynamic Risk Registers and Process Safety Observations (PSO) for timely mitigation. - Strengthen Procedure Used Discipline (PUD) for critical operating procedures, especially during Start-up and Shutdown. • LTI <ul style="list-style-type: none"> - Promote personnel safety and a safe work culture by emphasising surrounding risk assessments before activities. - Reinforce constructive measures to address behaviours causing non-compliance and incidents. <p>Other HSE initiatives included strengthening the FELT Leadership Engagement Programme to foster a proactive safety culture, improving contractor HSE management for accountability and enhancing PSO to proactively identify and address potential risks.</p>

OPERATIONAL EXCELLENCE

RELIABLE PLANT PERFORMANCE

Progress of Key Initiatives

Our **operational excellence performance in 2024 has shown significant improvement compared to 2023**. This progress is demonstrated by the improved reliability at most of our facilities and a reduction in planned shutdown activities throughout the year.

Plant Utilisation improved by **5.8% from FY2023**.

Better year-on-year Overall Equipment Effectiveness at ASEAN Bintulu Fertilizer (ABF), PETRONAS Chemicals Methanol (PC Methanol) and PETRONAS Chemicals Fertiliser Kedah (PC Fertiliser Kedah) following our enhanced reliability programme.

Challenges

Unplanned shutdowns and operational challenges mainly at ABF, PC Methanol, PC MTBE, PC Fertiliser Kedah

Mitigation/Response:

- Our reliability programme was enhanced to emphasise structured monitoring which was strengthened by utilising digital tools to ensure early threat identification and timely preventive actions. Key elements included structured reliability conversations, proactive maintenance supported by a structured scorecard and thorough Root Cause Analysis (RCA) to address systemic issues and prevent recurrence
- Our internal challenges became valuable learning opportunities, where we conducted in-depth RCA to pinpoint performance gaps and develop effective solutions. To strengthen this effort, we leveraged our team of technical experts within PCG who enhanced discussions under our Learning in Motion initiative, helping us tackle recurring operational issues more effectively. Through Lesson in Motion, we use digital tools to share key insights across different operational units, ensuring continuous learning and improvement across the organisation.
- Continue to drive our GHG reduction initiative through energy efficiency improvements, aligned with the Net Zero Carbon Emissions (NZCE) roadmap

DIGITALISATION JOURNEY

Progress of Key Initiatives

Advancing operational safety and efficiency through electronic permit to work (ePTW) digital solutions at all manufacturing OPUs.

Progressive utilisation of Asset Performance Management, Plant Facing Analytics (PFA) and PIVOT DA applications in supporting plant operation and value creation realisation across PCG OPUs.

5G deployment through **Project Private 5G** to enhance efficiency of plant digital tools.

Challenges

Connectivity issues, such as slow network performance, affected the performance and efficiency of digital tools

Mitigation/Response:

- Collaboration with network providers to address issues and deployed 5G network to improve connectivity speed and performance
- Continuous training and support were provided to users, with specific interventions for those facing persistent issues to further improve the utilisation and value creation from digital tools

OPERATIONAL EXCELLENCE

RELIABLE FEEDSTOCK AND UTILITIES SUPPLY

Progress of Key Initiatives

Secured higher-than-planned ethane supply of 140 tph which translated into ethylene production being maintained above 1 million TPA, despite turnaround activities at PC Ethylene.

External unplanned shutdowns to feedstock and utilities supply disruption was significantly reduced by 57% (2024: 4.4 days vs 2023: 10.2 days) through effective coordination and joint-performance monitoring between PCG and the feedstock and utilities supplier.

Challenges

Feedstock disruption affected operations at PETRONAS Chemicals Fertiliser Sabah (PC FS) and PC Methanol

Utilities supply disruptions impacted PC Olefins, PC Aromatic PC Glycols, PC Ammonia, PC Methanol and PC MTBE

Mitigation/Response:

- Continued to involve all stakeholders in aligning maintenance and shutdown schedule strategies to collectively address reliability concerns
- Strengthened our efforts in driving the reliability of feedstock and utilities supply, particularly in Sabah through the integrity performance of the Sabah Sarawak Gas Pipeline (SSGP) and improvements in utility supply from PETRONAS Gas Berhad (PGB)
- A taskforce was formed in collaboration with PGB to focus on improving utility supply reliability in Kertih and Gebeng sites

TURNAROUND EXCELLENCE

Progress of Key Initiatives

Completed planned turnarounds (TA) in 2024:

PC Fertiliser Kedah

PC Methanol – Plant 1

PC Ethylene

PC Polyethylene

Challenges

Limited skilled resources for TA execution causing delays and inefficiencies

Quality in TA execution resulting in suboptimal plant performance post-TA, **leading to unplanned shutdowns and reliability issues**

Mitigation/Response:

- Strengthening engagement with key contractors to improve resource management, overall quality and timely TA execution. This includes upskilling TA Contractors in ensuring that the right people with the right skills are available for TA execution
- Refinement of TA fact finding for better planning and enhancement on quality control through deployment of focused team and improved quality checklists to ensure that all tasks are performed correctly and efficiently during TA execution
- Implementing a Plant Safe Smooth Start-up strategy ensures seamless transitions post-TA

OUTLOOK

In our efforts to achieve reliable plant utilisation, we are committed to implementing a range of initiatives designed to strengthen our foundations and improve operational performance moving forward. These initiatives include:

- Focus towards achieving HSE generative culture - a culture where employees are encouraged to take ownership of safety and health issues and 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
- Managing integrated turnaround and maintenance activities which requires close coordination, resource planning and stringent supervision of contractors
- Improving plant performance through strict adherence to fundamental of operation including the rigorous compliance with Operating Procedure and work processes
- Continue to enhance the management of plant issues and Plant Reliability Threats (PRT) to improve our asset reliability
- Initiating and executing sustainability projects that are aligned with PETRONAS's sustainability agenda. This includes plant efficiency improvement and flare reduction programme, which include recovery and utilisation of hydrogen rich off-gas (H2RG) at our Gebeng facilities, realisation of the Kertih Site-wide Energy Review (SER) and continued implementation of Advanced Process Control (APC)

COMMERCIAL EXCELLENCE

PCG's Commercial Excellence centred on deepening customer engagement, enhancing portfolio value and advancing digital capabilities to meet evolving customer needs. Prioritising a customer-centric approach, PCG worked to understand and address specific customer pain points, particularly in response to rising demand for sustainable solutions.

To ensure reliable order fulfilment amid market fluctuations, PCG leveraged strategic sourcing to secure additional product volumes from trusted partners, safeguarding a consistent supply for clients. This proactive approach, alongside optimised pricing strategies, allowed PCG to meet high fulfilment rates while remaining competitive. Digital advancements, such as the customer portal, played a key role in enhancing service responsiveness by providing customers with real-time access to transaction details, order status and product information.

Collectively, these initiatives demonstrated PCG's dedication to delivering consistent value, navigating competitive pressures and supporting sustainable growth.

SALES PERFORMANCE

Progress of Key Initiatives

Total Sales Volume:	Order Fulfilment Reliability (OFR):	Customer Feedback:	Customer Satisfaction Survey (CSS) Score:
2024: 10.4 mil MT	2024: 95%	2024: 5.3 sigma	2024: 3.5
2023: 9.6 mil MT	2023: 95%	2023: 5.5 sigma	2023: 3.5

Challenges

Internal reliability issues and **external disruptions** resulting in multiple unplanned plant shutdowns affecting sales volume availability

Oversight of customer relationships may result in loss of customer loyalty

Bearish market sentiment on slow global economic growth amid threat of additional supply from new capacity/expansion

Tight vessel availability across the chemical segment, leading to higher vessel time charter rate

Intensified competition especially from Chinese suppliers that offer cost competitive options

High energy cost that affects our production and profit margin

Mitigation/Response:

- Planned and secured strategic sourcing volume with identified partners to fulfil order commitments
- Optimised sales portfolio mix and maintained high pricing excellence against market benchmark to maximise value
- Collaborated on product co-creation opportunities with selected customers
- Delivered customer-centric value propositions that meet customer needs
- Ensured close engagement with vendors/service providers to minimise operational disruptions and maintain reliable supply chain
- Sought co-loading opportunities to ensure timely delivery to customers
- Launched targeted initiatives to recapture lost market share and solidify our competitive position
- Streamlined operations and sales processes by optimising lifting schedules, pre-approving customer credit profiles and maintaining strong receivables performance
- Implemented procurement savings to achieve cost reduction target

PROMOTE SAFE HANDLING OF CHEMICALS & REDUCE OUR CARBON FOOTPRINT

Progress of Key Initiatives

Streamlined and improved processes to **enhance regulatory compliance and sustainability efforts.**

Challenges

Growing volume of requests for **carbon footprint studies**

Ensuring we maintain high standards of traceability and the chain of custody for sustainability efforts across the supply chain

Mitigation/Response:

- Procured Life Cycle Assessment Tool (GaBI) and upskilled the Product Stewardship team to use Life Cycle Assessment (LCA) tools effectively and accommodate stakeholder demands
- Automated data verification through Raw Material Information Request (RAWMIR), with notifications for missing documents and supplier follow-ups
- Completed a comprehensive product portfolio for PETRONAS Chemicals Olefins, PETRONAS Chemicals Glycols and PETRONAS Chemicals Derivatives (PC Olefins, Glycols and Derivatives) and ongoing efforts for other business units, aiding in regulatory and commercial decision-making

COMMERCIAL EXCELLENCE

PROMOTE SAFE HANDLING OF CHEMICALS & REDUCE OUR CARBON FOOTPRINT

Progress of Key Initiatives

Conducted 14 engagement and training sessions with key stakeholders to share knowledge on hazard classification and Personal Protective Equipment (PPE) requirements.

Challenges

Stakeholders often neglect compliance aspects, focusing solely on the product, leading to inadequate hazard and emergency communication

Mitigation/Response:

- Engagement sessions enabled clear communication of hazards, exposures and PPE requirements specific to products

Progress of Key Initiatives

Published 15 Product Regulatory Information Sheets (PRIS) for enhanced compliance visibility, including new regulations such as Chemicals of High Concern to Children (CHCC), Endocrine Disruptors (EDs), Persistent Organic Pollutants (POPs), Mineral Oil Saturated Hydrocarbons/Mineral Oil Aromatic Hydrocarbons (MOSH/MOAH), and Per- and Polyfluoroalkyl Substances (PFASs).

Challenges

Growing customer demand for **regulatory compliance information** and **HSE declarations creates resource strain**

Mitigation/Response:

- Developed new templates to handle 400 HSE requests and 45 customer questionnaires efficiently

Progress of Key Initiatives

Renewed **ISCC PLUS certification** for PETRONAS Chemicals Marketing (Labuan) Ltd. (PCML) to continue its role in trading recycled and bio-based materials.

Obtained **Bureau of Indian Standards (BIS) Certification** for PC Olefins, Glycols and Derivatives (Ethylene Glycol).

Challenges

Aligning team understanding of **ISCC Plus certification, accurate material inventory tracking** and **managing external consultant relationships**

Significant delays in obtaining **BIS certification** approvals for PETRONAS Chemicals Ethylene and PETRONAS Chemicals Polyethylene (PC Ethylene and PC Polyethylene) as well as PETRONAS Chemicals LDPE (PC LDPE)

Mitigation/Response:

- Appointed ISCC PLUS focal personnel, trained in updated certifications and supply chain management, to strengthen operational readiness
- Following up closely with the authorities until the certification is obtained

COMMERCIAL EXCELLENCE

SUSTAIN LAND TRANSPORT SAFETY

Progress of Key Initiatives

Implementation of assurance programme for road transporters, which 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 session.

Conducted **6 Defensive Driving Training (DDT) sessions** for sales personnel.

Implemented **e-learning DDT module** for the rest of commercial staff to inculcate awareness on road safety.

Challenges

The assurance programme has about 10 different elements, making it a massive undertaking to ensure **effective implementation without compromising 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 programme on pilot basis to a small group of transporters to ensure any gaps/improvements required will be immediately addressed without adversely affecting the day-to-day operations. All five transporters scored above 90% in terms of compliance
- Ensured meaningful engagement with transporters with the presence of top management during FELT Leadership sessions
- Secured leadership commitment for staff enrolment in DDT
 - Inclusion of Product Stewardship sharing on product safety for each transport safety session enabling transporters to understand the requirements on product classification, handling, storage, incident management and PPE requirements

ADDRESS CUSTOMERS PAIN POINTS & OPTIMISE VALUE

Progress of Key Initiatives

PCML launched 1 new product (HL701) with high Renewable Carbon Index Surfactant.

288 technical solutions to aid customer business growth.

6 co-created innovative solutions.

BRB launched 12 new products which include products aimed at advancing performance and sustainability across automotive, lubricant, paints, construction and personal care applications.

Perstorp launched 5 new products which include a thermal management fluid for data centres, a true non-phthalate plasticiser based on **100% renewable** and/or recycled mass balance content and completed its **C8-C10 Oxo Alcohols offerings.**

Challenges

Customer requires **longer trial period for product evaluation prior** to acceptance

Shifting customer preference towards sustainable products take 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

Mitigation/Response:

- Continued reaching out to potential customers in targeted markets and developing co-created application solutions to address customer's pain points e.g., glove manufacturers find it difficult to source for additives because it is not produced in Malaysia
- Continued promotion of Pro-Environment solutions to help customers meet their sustainability targets
- Offer constant support to customers to educate, create awareness and provide technical support about our products

COMMERCIAL EXCELLENCE

DIGITALISATION JOURNEY

Progress of Key Initiatives

Implementation of CDEx Digital Slot booking platform

improved logistics efficiency at PETRONAS Chemicals Fertiliser Kedah (PC Fertiliser Kedah) by enabling vehicle slot booking which helped to reduce traffic congestion issues and truck idling times.

Started roll out of our customer portal with 230 customers, both local and international, now able to check on their order and delivery status, log feedback instantly, download product regulatory sheets. They can even indicate their interest in other products within the Downstream business and be automatically connected to the relevant business be it PCML, PETRONAS Dagangan Berhad (PDB) or PETRONAS Trading Corporation Sdn. Bhd. (PETCO). This enables better information, transparency and control to our customers who can access all this through their mobile phones.

Challenges

To ensure seamless integration between our various systems as well as successful data migration and accuracy

Adoption of new features rollout which has changed how employees conduct sales

Mitigation/Response:

- 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
- Implemented change management activities that included group training, one-on-one training, system support clinics, gamification and rewards

OUTLOOK

In the coming year, PCG will strengthen its commercial capabilities by expanding our strategic sourcing initiatives as we seek to counter the effects of thinning margins amid an evolving market landscape. By turning some of the volumes obtained from strategic sourcing into trading opportunities, we will be able to generate additional revenue, while maintaining the original intent of mitigating disruptions to internal volume supply. These efforts are designed to bring greater value to both PCG and its customers, ensuring a more resilient and responsive supply chain while diversifying our income stream.

Amid growing competition, PCG remains committed to optimising product distribution through overseas subsidiaries. Initiatives like China Domestic Distribution (CDD) Pro will create additional value by facilitating methanol shipments via tankages at key locations, including Taicang, Fujian and Taizhou. Additionally, PCG will maximise transportation efficiency by optimising our Time Charter (TC) backhaul with strategic sourcing volumes from China, enabling more effective use of transportation capacity and further enhancing the supply chain.

With new production capacities coming online, such as the melamine plant in Gurun, Malaysia, PCG's commercial team will focus on expanding market reach. Efforts will target new geographical markets and untapped customer segments, ensuring the company is well-positioned to capture emerging opportunities and drive sustainable growth in a dynamic market environment.

For Specialty Chemicals, we will reinforce our presence in Europe and America and expand into the APAC market, while prioritising sustainability and customer-centric innovation to drive its transformative strategy and become a global leader in the specialty chemicals market. We will execute our transformation strategy by driving growth through a combination of organic and inorganic strategies, enabling us to broaden our portfolio and reach new markets.

GROWTH DELIVERY EXCELLENCE

PCG progressed its Growth Delivery Excellence initiatives. Key achievements included the commercialisation of four of our growth investments, targeted expansions in high-demand markets, the addition of new products to our portfolio and taking our first steps towards creating a global innovation network. These initiatives have positioned PCG to drive high-value growth in diverse sectors such as automotive, healthcare and personal care. Additionally, PCG remains committed to our circular economy initiatives and embedding sustainability in our day-to-day operation and business decisions. As we move forward, PCG remains focused on delivering innovative, customer-centric and resilient solutions that align with market demands and our sustainability goals.

Progress of Key Initiatives

EXTEND VALUE CHAIN

Commercial Operation achieved for:

Pengerang Petrochemical Complex

Commercial operations began in November 2024. The complex will produce petrochemical products that include polymers and glycols with a total production capacity of 2,450 KTPA. These products serve as key ingredients in millions of end-consumer products that are used on a daily basis.

Specialty Ethoxylates and Polyether Polyols in Kertih, Malaysia

Through our JV with PCC SE, commercial operations began at the Kertih Integrated Petrochemical Complex (KIPC), meeting demand in high-growth sectors like automotive, cleaning and personal care, and reinforcing PCG's position in specialty chemicals. The plant can produce specialty polyether-polyols and specialty surfactants and has a capacity of up to 70 KTPA.

Nitrile Butadiene Latex (NBL) in Pengerang, Malaysia

Our NBL plant, in collaboration with LG Chem, reached commercial operations in September 2024, supporting Malaysia's global leadership in glove manufacturing. With a 200 KTPA capacity, it caters to the growing healthcare industry worldwide.

2-Ethylhexanoic Acid (2-EHA) in Gebeng, Malaysia

This joint venture plant has doubled its capacity to 60 KTPA and will address regional demand for 2-EHA applications, including synthetic lubricants and PVB plasticisers, supporting key industries such as automotive and construction.

Plant Commissioning

Isononanol (INA) in Pengerang, Malaysia

This plant is in its commissioning stage and has achieved its on-spec product in February 2024. The plant will gradually ramp up to full commercial operations in 2025. The INA facility will produce 250 KTPA of isononanol annually, used for the production of higher molecular weight plasticisers applied in automotive and building industries.

Execution in Progress

Melamine in Gurun, Malaysia

The development of Southeast Asia's sole melamine plant, set for completion in 2025, will meet regional demand in construction and household goods, reducing reliance on imports and supporting regional economic resilience.

Maleic Anhydride (MAn) in Gebeng, Malaysia

The upgraded MAn plant aligns with our strategy to meet rising demand across Asia-Pacific and beyond. This facility enables the future integration with our subsidiaries Perstorp and BRB, supporting downstream applications and innovative solutions for multiple industries such as food and beverage production, coatings, pharmaceuticals and textiles.

GROWTH DELIVERY EXCELLENCE

Progress of Key Initiatives

BUILD SPECIALTY PLATFORM

Expanding Market Presence Across Asia

Perstorp's new ISCC PLUS Certified Pentaerythritol and Calcium Formate plant in Bharuch, India, supports regional demand for certified, high-quality specialty chemicals - the building blocks for Alkyd resins, radiation curing monomers, polyurethanes, rosin esters and synthetic lubricants. The plant has a capacity to produce 40,000 TPA of Pentaerythritol and 26,000 TPA of calcium formate.

The establishment of new Perstorp offices in Malaysia, Turkey, Taiwan, reinforces our presence in Southeast Asia and Europe, while leveraging Taiwan's strategic position within the semiconductor supply chain.

Full ownership of Perstorp's Zibo polyol facility in China will enable Perstorp to expand and strengthen its presence in China, reinforcing its strategic focus on the Asian market while creating opportunities for future expansion and site diversification in Asia.

Growing Our Product Portfolio

Perstorp now offers C8-C10 oxo alcohols, leveraging synergies from PCG's INA plant in Johor, Malaysia which enriches our common intermediate feedstock portfolio and strengthens market position.

Perstorp acquired OQ Chemicals Nederland B.V. now renamed as Perstorp Amsterdam B.V. which will further support our growth strategy and enhance our presence in the Engineered Fluids segment.

Strengthening Operational Excellence

BRB's sites in the Netherlands and Malaysia achieved ISO 45001 for health and safety, and **ISO 14001 for environmental management**, affirming our commitment to sustainable and safe production standards.

CREATE OPTIONALITY FOR GROWTH

Expanding Bio-based Offerings

A new pilot plant enables us to expand into the personal care sector, with **bio-based emollients set to be marketed under BRB's Emfinity® brand**.

Through **BRB's Emfinity®**, we deliver **sustainable, diverse solutions for skincare and cosmetics**, addressing the demand for eco-friendly personal care products.

Building Innovation Capacity

The **construction of Technology and Innovation Centre (TIC)** in Bangi, Malaysia alongside with **BRB and Perstorp labs**, we have **established a robust network for localised and sophisticated solutions** across key markets.

Driving Strategic Growth and Partnerships

Actively assessing and evaluating potential disruptive technologies from start-up companies with PETRONAS Corporate Ventures.

Exploring feedstock options outside Malaysia to enhance value creations by bringing feedstock supplies closer to demand centres.

Continuously **exploring growth opportunities with our existing strategic partners at PCG and PETRONAS**. Our aim is to offer innovative product solutions and expand our market reach.

GROWTH DELIVERY EXCELLENCE

Progress of Key Initiatives

SUSTAINABILITY AT THE CORE

Advanced Recycling and Circular Economy

PCG continues to evaluate project and market pathways for this project with the key objective to deliver immediate and sustainable returns for stakeholders. Globally, sustainability initiatives in the oil and gas and petrochemical industries often face a range of challenges especially when implementing new technology. In the context of the circular economy for plastics, difficulties include limited recycling infrastructure, consumer and ecosystem readiness, cost competitiveness and shifting market demands.

PCG's Sustainable Portfolio and Net Zero Carbon Emissions (NZCE)

Developed a sustainable portfolio centred around three key pillars:

Low-Carbon solutions and Carbon Dioxide utilisation - Low-Carbon solutions and turning Carbon Dioxide into value added products

Circular Economy and solutions - Utilisation of plastic waste to produce recycled polymers

Bio-based chemicals - Bio-based chemicals as viable alternative to fossil-based products

At the same time, we will explore investments in decarbonisation and the carbon-reducing initiatives to achieve NZCE by 2050.

Perstorp and BRB Environmental Initiatives

Perstorp's Stenungsund wastewater facility, inaugurated in April 2024 in Sweden, is expected to save up to 1.1 billion litres of fresh water annually. Moreover, Perstorp's Waspik site became the first Perstorp facility to achieve net zero emissions for both Scope 1 and Scope 2. This accomplishment was made possible through the replacement of natural gas with biogas, a full transition to 100% renewable energy and the implementation of additional sustainability initiatives, including the substitution of diesel trucks with electric vehicles.

BRB is partnering with Bullfrog Power on green electricity and gas supply at its Canadian plant and adopting the Return on Society and Environment (ROSE) Framework to track Environmental, Economic, Social and Governance (EESG) goals. BRB has also switched to new packaging labels using recyclable PET liners to further reduce carbon footprint.

Challenges

STRATEGIC INVESTMENT

Growth projects and new business ventures inherently carry risks, including the potential for low returns and the loss of business opportunities. As we expand our value chain into specialty chemicals, these risks become increasingly significant.

We face risks such as diminishing financial capital and shareholder returns, failure to achieve planned margins, missed business opportunities and customer loss.

BUSINESS PARTNERS' PRIORITIES

Disruptions and challenges faced by business partners impact the management and prioritisation of investment portfolio.

PROJECT FEASIBILITY

Hyperinflation, rising costs, volatility of product prices and climate action pressure can hinder a project's feasibility.

Mitigation/Response:

We scan emerging technologies to enhance existing molecules and access new feedstocks. Our investment portfolio targets short-, medium-, and long-term goals.

We have expanded into specialty chemicals for higher, stable margins. We realigned our product portfolio for long-term growth, assessing investments for returns and viability, while considering risks.

Extend Value Chain:

- Scan projects and technologies
- Evaluate integrated value chain models

Build Specialty Platform:

- Implement Post-Acquisition & Integration Plan

Create Opportunity Growth:

- Collaborate with PETRONAS Capital Ventures
- Screen venture capital start-ups and assess strategic fit
- Invest in research and technology projects, leveraging past experiences and expertise from BRB and Perstorp. Assess new opportunities with defined criteria to improve success

- **Strengthen relationships** across the value chain through a close and collaborative relationship with business partners
- **Find alternative business partners** to continue with investments
- **Strengthen specialties portfolio** via continuous innovation, strategic organic and inorganic growth

- **Ensured strong project economics** by conducting comprehensive evaluations and forecasts
- **Leveraged our business intelligence to benchmark** against the market and other key industry players
- **Attracted appropriate business partners and technology providers** that offer the best competitive advantages
- **Integrated sustainability as a fundamental requirement** from the feasibility stage to commercialisation

GROWTH DELIVERY EXCELLENCE

Challenges

PROJECT EXECUTION

Project delivery issues that impact the commercialisation or stabilisation of new plants may impact our ability to maximise value at pace.

SUSTAINABILITY

Global awareness of climate change and the need for circular economy is increasingly shaping customer demands for sustainable products and solutions. This shift in consumer preferences may significantly impact our business performance, reputation, and long-term growth prospects.

INNOVATION

Venturing into new technologies may necessitate an extended innovation period for business and technology validation, accompanied by a high uncertainty of success.

Mitigation/Response:

- **Effectively driven project execution**, ensuring business and operational readiness for sanctioned projects
- **Ensured a comprehensive scope for the Engineering, Procurement, Construction, and Commissioning (EPCC) contract**
- **Developed a clear route-to-market strategy and secured customers** before project commercialisation
- **Actively pursued sustainability-related projects**, guided by PCG's Sustainable Portfolio
- **Conducted feasibility assessments, incorporating sustainability dimensions** for all growth projects
- Integrated a robust carbon abatement plan as a **key component of the project Final Investment Decision (FID) package**
- **Collaborated with cutting-edge technology solution providers** to develop a sustainable and innovative portfolio
- **Utilise advanced tools and technologies to track** and report on sustainability metrics.
- **Communicate the benefits of sustainable solutions** clearly and effectively
- **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
- **Collaborated with research centres and universities** to incubate and validate our innovations

OUTLOOK

PCG remains focused on unlocking value from growth projects, enhancing our specialty platform and driving sustainability across our operations.

Extend Value Chain

- Achieve full commercial operation for Melamine plant in Gurun and Isononanol plant in Pengerang in 2025
- Achieve Ready For Start-Up (RFSU) for MAn plant in Gebeng, Malaysia in 2026
- Continue to mature opportunities in our project pipeline at various feasibility stages, while prioritising strategic projects and monitoring high-potential mid-term prospects

Build Specialties Platform

- Commercialise the Sayakha plant in Bharuch, India to strengthen the polyol business in APAC
- Drive specialty chemical growth through organic and inorganic initiatives
- Leverage synergies with Perstorp to replicate technologies in Malaysia, catering to APAC market demands

Create Optionality for Growth

- Establish a global innovation network, including the Technology & Innovation Centre in Bangi, alongside BRB and Perstorp's labs, to deliver localised and sophisticated solutions
- Allocated funds in research and technology to accelerate innovations to meet demand for sustainable products

Sustainability at the Core

- Pursue sustainability growth projects in the PCG's Sustainable Portfolio which involves developing low-carbon solutions, bio-based chemicals, and recycled polymers from plastic waste under our Circular Economy strategy
- Implementation of comprehensive carbon reduction efforts under our NZCE 2050 plan
- Expand Perstorp's Pro-Environment Solutions, ensuring renewable or recycled materials match the quality of fossil-based counterparts