

The background is a dark blue gradient. On the right side, there are several overlapping geometric shapes: a large light blue triangle pointing downwards, and several smaller, semi-transparent hexagons and polygons. Overlaid on these are molecular structures represented by lines and dots. Some dots are yellow-green, while others are light blue. The overall aesthetic is scientific and modern.

# **PETRONAS CHEMICALS GROUP**

**Macquarie 13<sup>th</sup> Annual ASEAN Conference**

**23 August 2022**

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# PCG is a leading integrated chemicals player in the region

## QUICK FACTS

- 1** Started 1st plant in 1985, in Bintulu, Sarawak
- 2** Manufacturing and sales of a wide range of chemical products with current total production capacity of 12.8 million MTPA
- 3** Three major product segments consist of:
  - *Olefins & Derivatives (4.9 million MTPA)*
  - *Fertilisers & Methanol (7.8 million MTPA)*
  - *Others*
- 4** Made up of more than 50 subsidiaries, joint ventures and associated companies
- 5** Top 10 in FBM KLCI, FBM Emas Shariah and a 4th year constituent Bursa Malaysia FTSE4GOOD Index
- 6** Headquartered in the Kuala Lumpur, Malaysia
- 7** PCG is a constituent of key sustainability indices:
  - *DJSI World*
  - *DJSI Emerging Market*

## 3 MAJOR SEGMENTS

### Olefins & Derivatives

*Olefins, intermediate, basic and high performance chemicals, and polymer*

**4.9 million MTPA**

### Fertilisers & Methanol

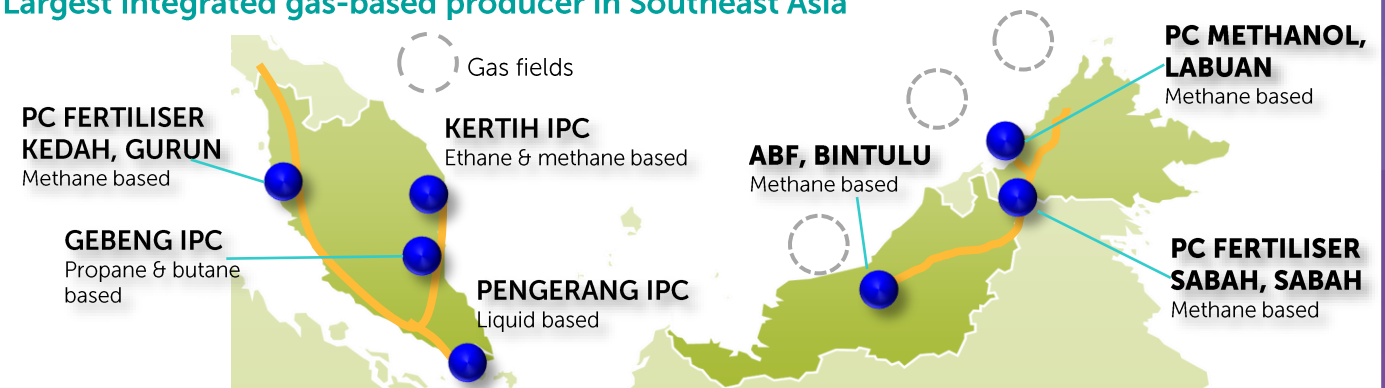
*Methanol and a range of nitrogen, phosphate and compound fertilisers*

**7.8 million MTPA**

### Others

*Operations related to investment holding company and port services and specialty chemicals such as the BRB Group*

## Largest integrated gas-based producer in Southeast Asia



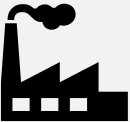
FULLY INTEGRATED FACILITIES AND INFRASTRUCTURE RESULTING IN LOWER COST, OPTIMUM YIELDS AND GREATER FLEXIBILITY

# Long term resilience proven by established business model and management strategy

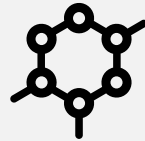
## COMPETITIVE ADVANTAGE



**Secure and competitive feedstock** supply



**Fully integrated** facilities and infrastructure



**Competitive world scale plants** with **diversified product portfolio**



Proximity to **key growth markets**



Portfolio expansion with **leading edge technology**



**Strong returns** and **capacity to fund growth**

### Operational Excellence

- **Safe operations** at a high level of productivity
- **Disciplined practices in HSE** & manufacturing program
- **Efficient** feedstock supply management

### Commercial Excellence

Additional value through competitive marketing, providing **innovative products and solutions** to create a **customer centric business**

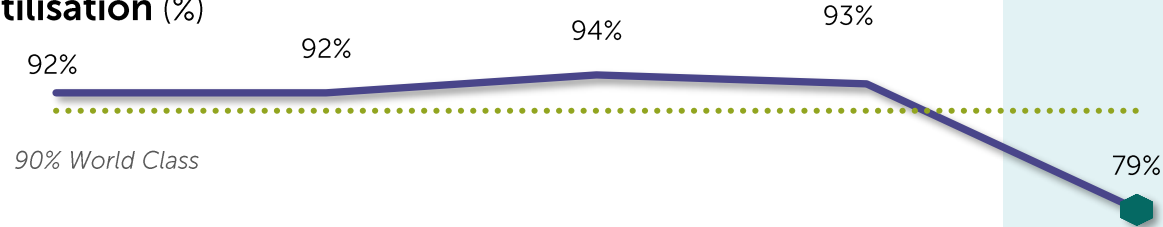
### Growth Delivery Excellence

- **Capacity Growth and portfolio expansion** into derivatives and specialty chemicals
- Commitment to **sustainable investments**

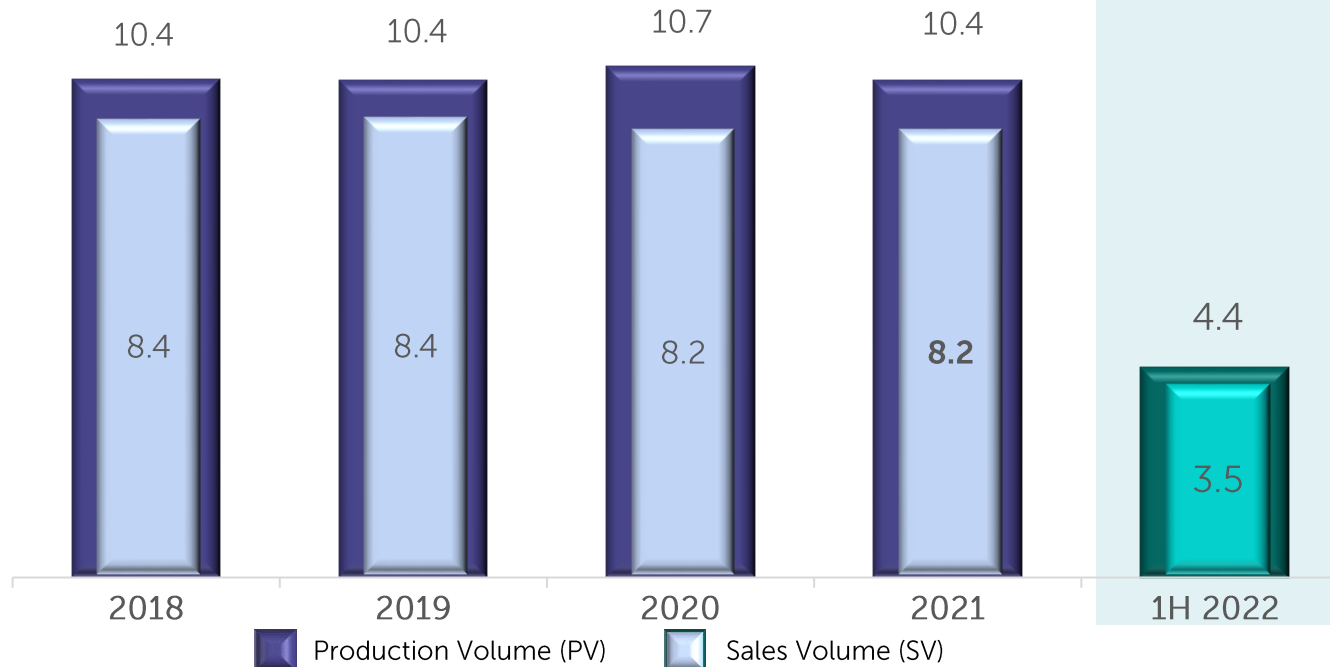
# Operational Excellence initiatives have resulted in world class manufacturing capabilities amid heavy turn around

## OPERATIONAL PERFORMANCE

### Plant Utilisation (%)



### Production & Sales Volume (mil tpa)

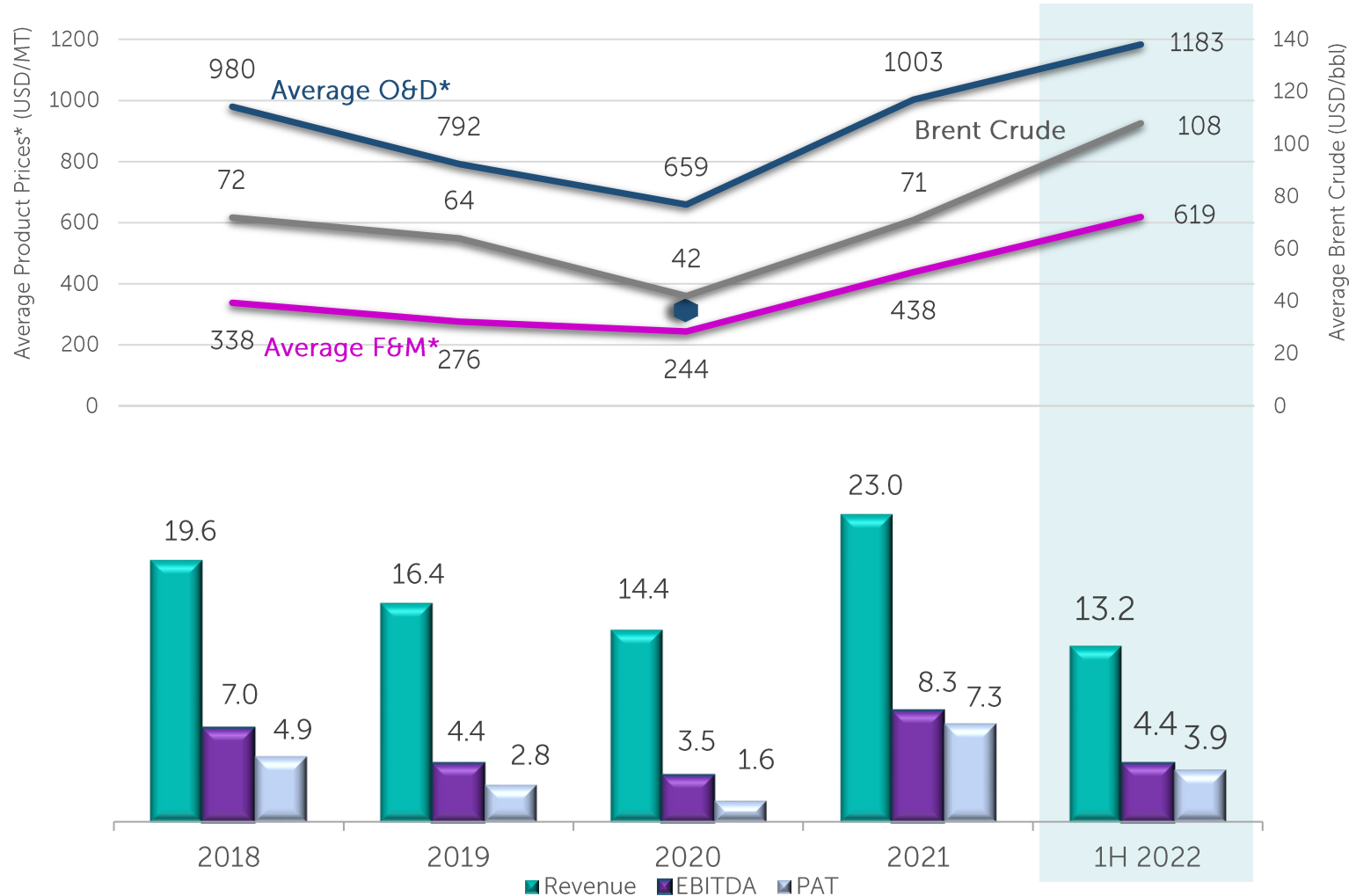


## Operational Excellence

- **Plant utilisation** is commendable despite heavy turnaround activities
  - Heavy turnaround and maintenance activities at:
    - Propylene plant (PC Olefins)
    - PC Aromatics
    - PC Fertiliser Sabah
    - PC Methanol Plant 2
- Sustainable operations with **stable feedstock supply** through close relationship with suppliers
- Improved earnings with **higher production efficiency**



# Robust planning and management of business operations result in profitability and stable financial performance despite market volatility and supply chain disruption



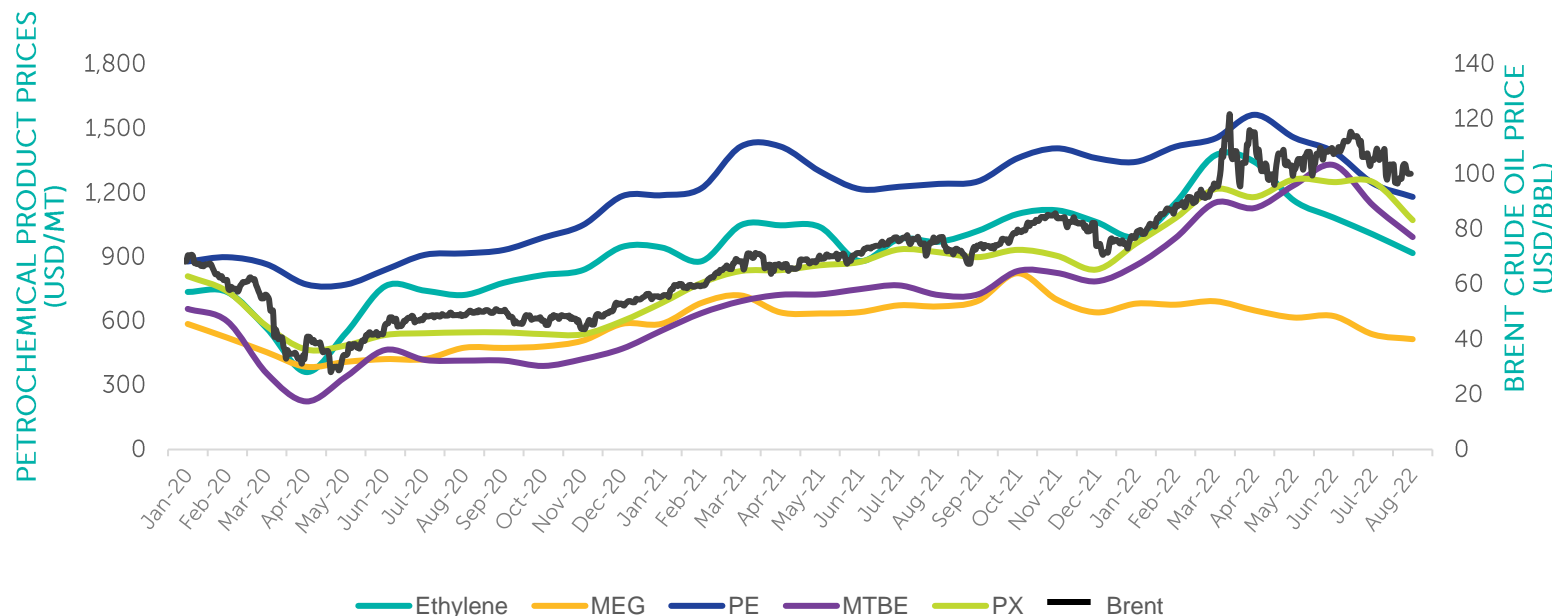
Continued focus on executing growth strategy while maintaining financial fundamentals through:

- Business growth
- Prioritised capital investment
- Cost discipline & optimisation
- Risk management & governance practice
- Inventory management
- Foreign exchange management
- Management of working capital & liquidity

**61%**

Dividend Pay-out Ratio for FY2021  
(FY2020: 59%)

# Olefins & Derivatives Outlook: Dampened downstream demand as COVID-19 lockdown continues in China



## Immediate outlook:

**Ethylene:** Soft despite cracker outages & lower operating rate amid sluggish downstream demand.

**MEG:** Soft with producers continuing to reduce operating rates due to negative margin amid high China stockpiles and recession fears.

**PE:** Soft to stable in view of ample supply in SEA. Demand expected to be improved towards Sept'22

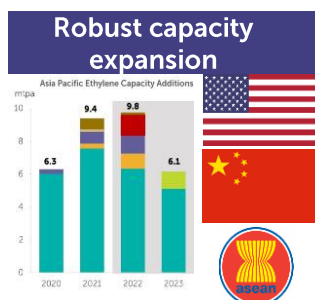
**MTBE:** Soft following the oversupply of MTBE in the SEA region coupled with the weak demand following demand into gasoline blending in tapering off soon.

**Paraxylene:** Soft despite short supply due to plant TA due to low demand from PTA and polyester market.

## Immediate concerns:

- Slow economic recovery in China
- Geopolitical concerns affecting feedstock prices

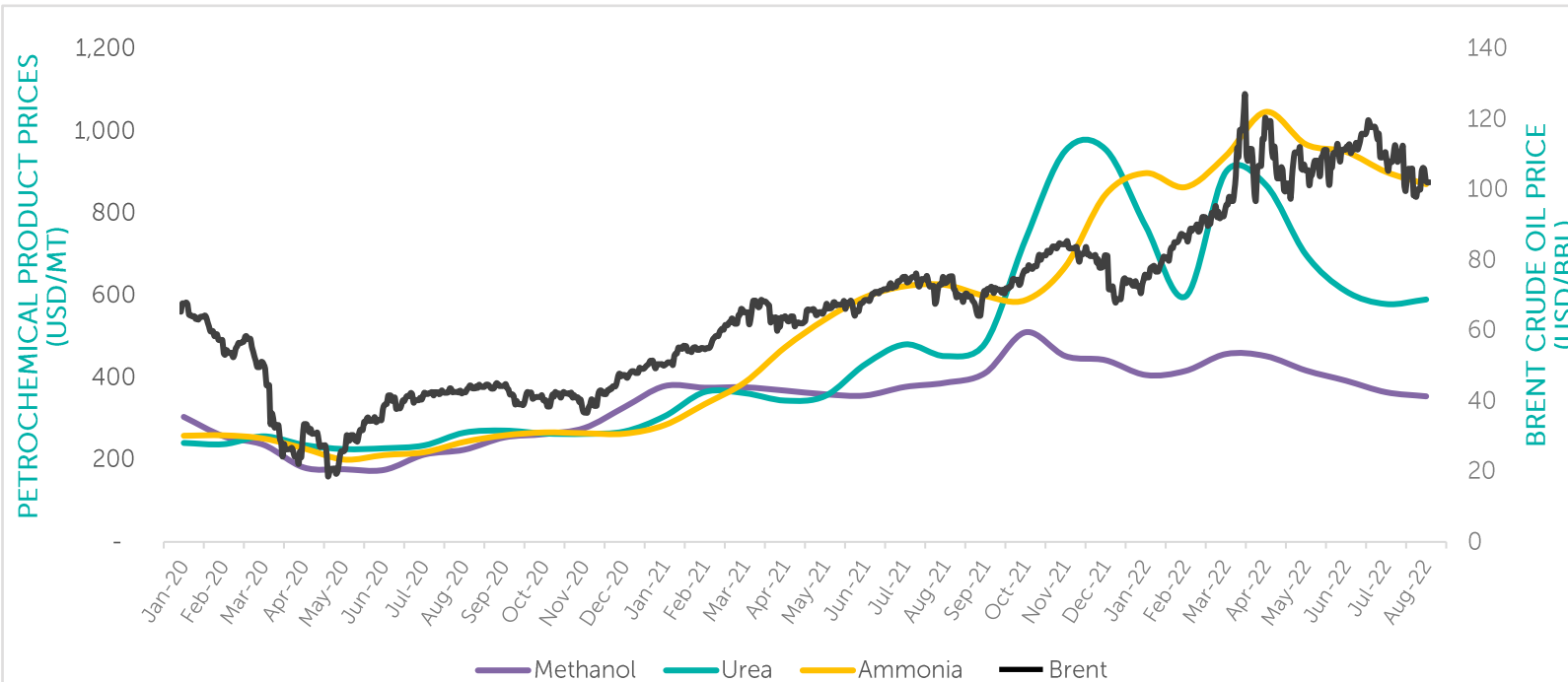
## Long term factors:



Source: OPEC, IEA, EIA, PLATTS, IHS, ICIS, PETRONAS Strategic Research, PCG BAMR

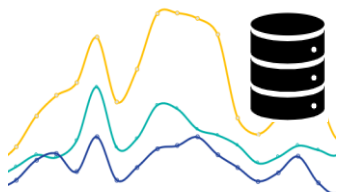


# Fertilisers & Methanol Outlook : Fertilisers slows on off-planting season; Methanol sees correction with stabilising crude oil



## Long term factors:

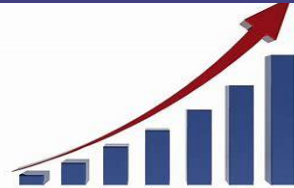
**Volatile energy and feedstock price**



**High capacity additions**



**Growth in non-fuel and MTO demand**



**Heightened food security**



## Immediate outlook:

### Urea :

- Stable supply due to no plant TA & planned shutdown. Weak demand due to off planting season and lower India tender than anticipated. Demand to pick up 4Q onwards.

### Ammonia :

- New plant in ME to start up in Q3. Steady demand limited by squeezed margins for downstream products.

### Methanol :

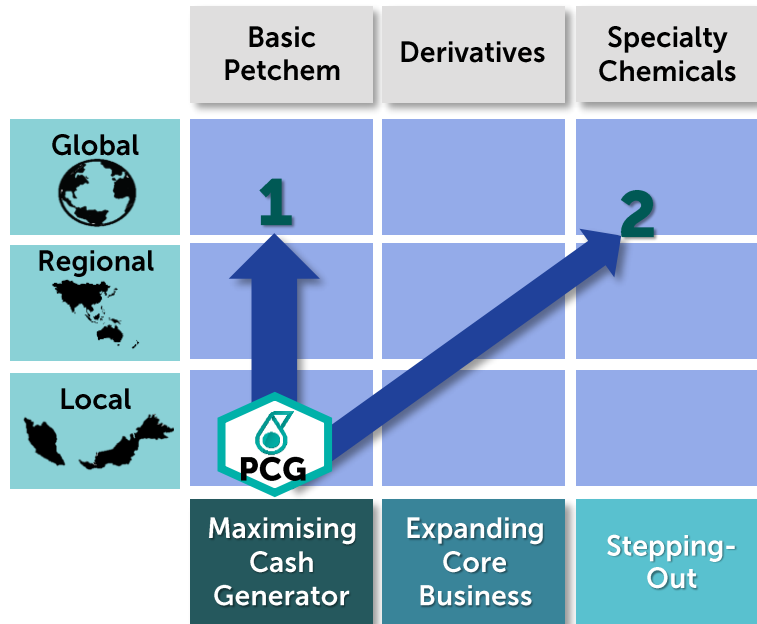
- Higher supply from Russia and Iran into China coupled with stagnant demand in China.

## Immediate concerns:

- Geopolitical concerns

# PCG has a clear strategy to grow our specialty chemicals portfolio and future-proof the business

## 2-Pronged strategy



1. Sustain strength in basic petrochemicals
2. Selectively diversify into derivatives, specialty chemicals and solutions

Diversify into derivatives, specialty chemicals and solutions to future-proof the business

### Expanding Core Business



**Extend Value Chain (EVC)**

via **downstream investment**

### Stepping-Out



**Build Specialty Platform**

via **Merger & Acquisition (M&A)**



**Create Optionality for Growth**

via **Technology Research** and **Corporate Venture Capital (CVC)**

# Pengerang Integrated Complex: Refinery re-started, 8th May 2022



## Pengerang Petrochemicals Complex Sdn Bhd

Location : Pengerang, Johor  
 Ownership : 50-50, PCG & Saudi Aramco  
 Capacity (total) : 3.050 million tonnes combined  
 Products : LLDPE, HDPE, Polypropylene, Glycols

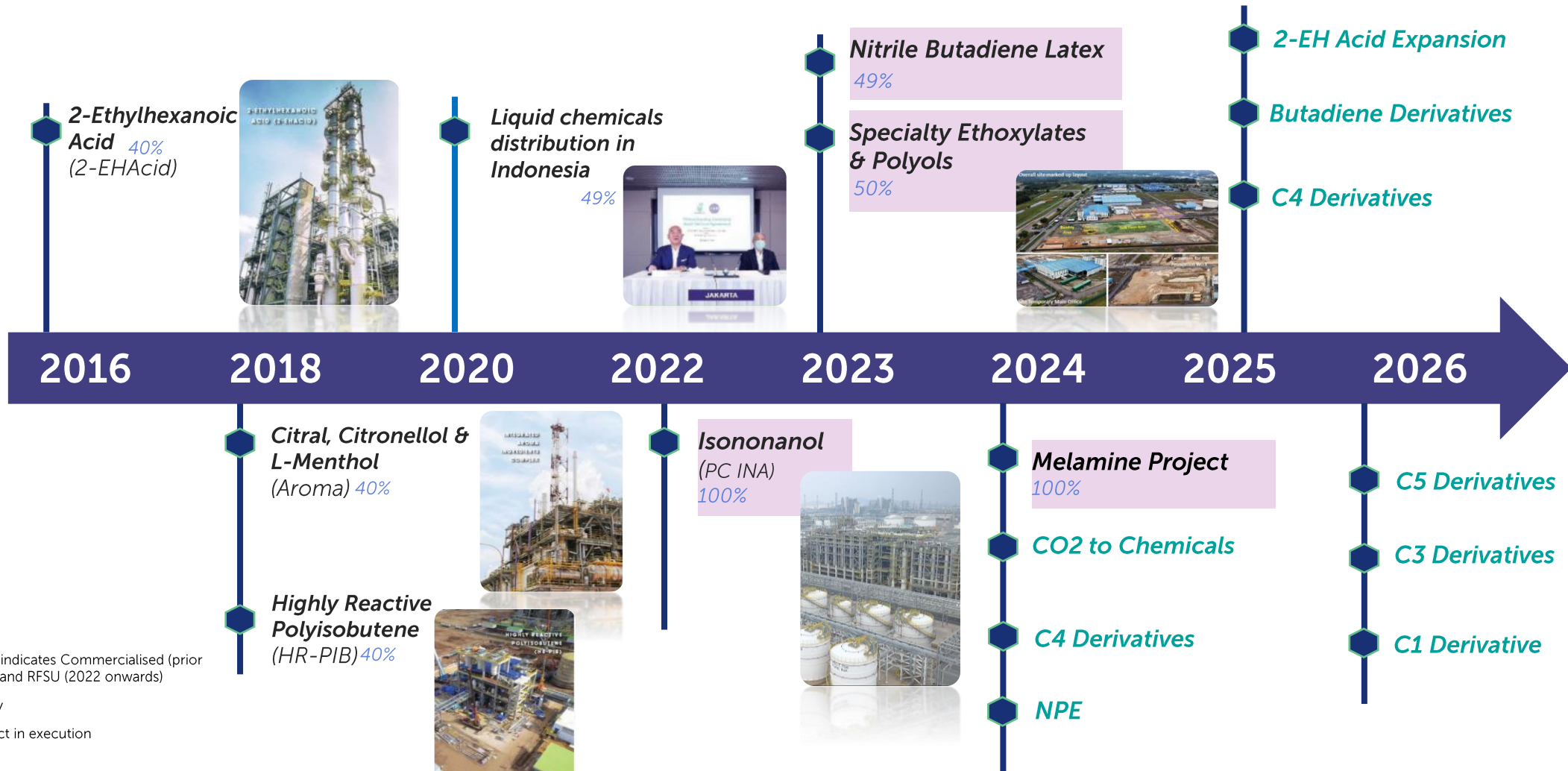
## PETRONAS Chemicals Isononanol Sdn Bhd

Location : Pengerang, Johor  
 Ownership : 100% PCG  
 Capacity : 250,000 tonnes  
 Product : Isononanol

No.	Product	Volume ('000 MT)	End Product	Target Market
1.	Linear Low Density Polyethylene (LLDPE)	3,050*	Flexible film for food and heavy duty industrial packaging	Asia Pacific
2.	High Density Polyethylene (HDPE)		Pipe, blow molded containers and injection molded articles	Asia Pacific
3.	Polypropylene (PP)		Flexible packaging film, automotive articles and electrical appliances	Asia Pacific
4.	Glycols (MEG, DEG, TEG)		Coolant, textile	Asia Pacific
5.	Isononanol (INA)	250	Lubricants, plasticisers	Asia Pacific

\* Based on 100% capacity

# 12 EVC projects are in the pipeline, undergoing various stages of execution and feasibility studies for startup within the next 5 years



**Note:**  
Timeline indicates Commercialised (prior to 2022) and RFSU (2022 onwards)

x% Equity

Project in execution



# The next M&A for specialty chemicals platform is crucial for our future positioning

## 1st Platform : Silicone



**New Silicone Blending Facility in Pahang**



**BRB Lube oil Additives and Chemical facilities**

Location	: Gebeng, Pahang
Capacity	: 8,000 MT per annum
Market Segments	: Personal care, F&B
Products	: (i) Silicone gum blend; (ii) Silicone antifoam; and (iii) Silicone emulsion
Target markets	: Asia Pacific, Middle East, Africa

## Next Platform

### End markets

- 1 Feed
- 2 Food & Nutrition
- 3 Agriculture
- 4 Automotive
- 5 Construction
- 6 Electronics
- 7 Energy (excl. Hydrogen)
- 8 Oil and Gas
- 9 Paints & Coatings
- 10 Water Treatment
- 11 Healthcare
- 12 Household, Industrial & Institutional (HI&I)
- 13 Personal Care

### Specialty chemicals pathways

1



**Food, Feed and Nutrition**

2



**Industrial Additives**

3



**Surfactants, HI&I and Personal Care**

# Perstorp fits as a growth platform for PCG to expand its Specialty Chemicals portfolio



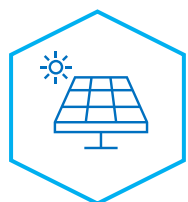
## MARKET EXPOSURE

- Perstorp's portfolio is within PCG's preferred end markets such as Paints & Coatings, Construction, Automotive, Personal Care, Food, Feed & Nutrition.



## LEADERSHIP POSITION

- Global #1 in Penta & TMP and Top 3 for Neo & Oxo
- Trusted brand with > 100 years history



## TECHNOLOGY OWNERSHIP

- Proprietary process chemistry for various chemical families
- R&D through active collaboration with universities & institutions



## TALENTED PEOPLE

- Experienced management team and employees of Perstorp pivoting towards high margin downstream specialties



## SUSTAINABILITY-DRIVEN

- "Pro-environment" product series
- Low VOC/emission alternatives towards "Finite Material Neutral" ambition
- Green methanol (Project Air)



## GROWTH OPTIONALITY

- High value creation potential with bolt-on acquisitions
- Expansion in APAC and SEA



# Sustainability at the Core of our business

## Economic

### Business Sustenance & Green Initiatives

OE

HSE & Operational Excellence

CX

Commercial Excellence

GE

Growth Delivery Excellence



## Environmental

### Environment Stewardship & Resource Efficiency



GHG Emission Reduction



Energy Optimisation



Waste Minimisation



Water Conservation



New Plastics Economy (NPE)



Net Zero Carbon Emission 2050



## Social

### Social Responsibility



Managing Human Rights Risk



Community Well-Being



NPE Education and Clean Up



## Governance



FTSE4Good and Dow Jones Sustainability Index (DJSI) benchmarking

# Economic: Business sustenance through growth and responsible product solutions

## Economic

### Business Sustenance & Green Initiatives

**OE** HSE & Operational Excellence

**CX** Commercial Excellence

**GE** Growth Delivery Excellence



### Bio-MEG for biodegradable packaging



Bio-PET

### Eco-friendly surfactant for oil & gas



EOR in Oil & Gas

### Ultra-mild specialty surfactant for personal care



Personal Care



Green Surfactant

### Polyol ester emollient for personal care



Skin Care



Cosmetics

### Ultra High Purity Methanol for fuel cells



Fuel Cells

# Environmental: PCG aims to reduce greenhouse gas (GHG) emission through Net Zero Carbon Emissions Roadmap by 2050 (NZCE2050)

## PCG NET-ZERO CARBON EMISSIONS (NZCE) PATHWAYS

### Environmental

#### Environment Stewardship & Resource Efficiency



GHG Emission Reduction



Energy Optimisation



Waste Minimisation



Water Conservation



New Plastics Economy (NPE)



Net Zero Carbon Emission 2050



Increase Scope 1 and Scope 2 emissions reduction efforts



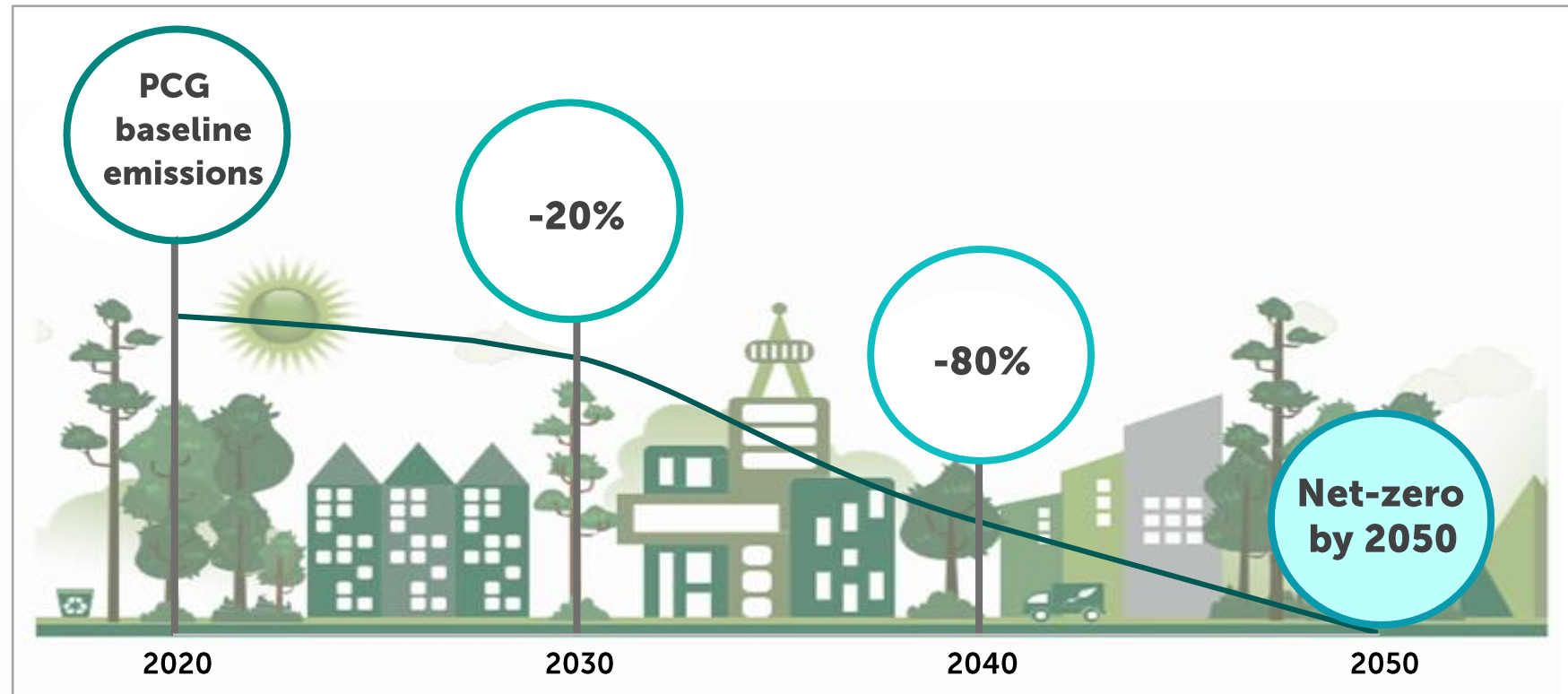
Carbon capture & storage



Scale up renewables and low carbon solutions



Optimise the use of forest-based carbon offset



# Social: Upholding commitments

## Social

### Social Responsibility



Managing Human Rights Risk



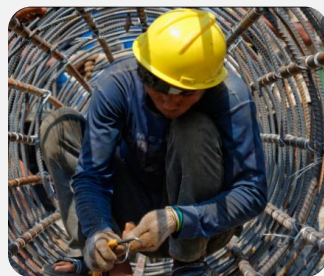
Community Well-Being



NPE Education and Clean Up



## Managing Human Rights Risk



**100%** contractor assessed on Human Rights Risk

**13** vendors established via Vendor Development Program

## Community Well-Being



2005

2021

**>23,000** mangrove trees planted

**>20,000** people reached

Visitor to ecoCare Education Center

**>1,300** student reached on educating safety awareness

## NPE Education & Clean Up



**>240,000** teachers & student reached from webinar series





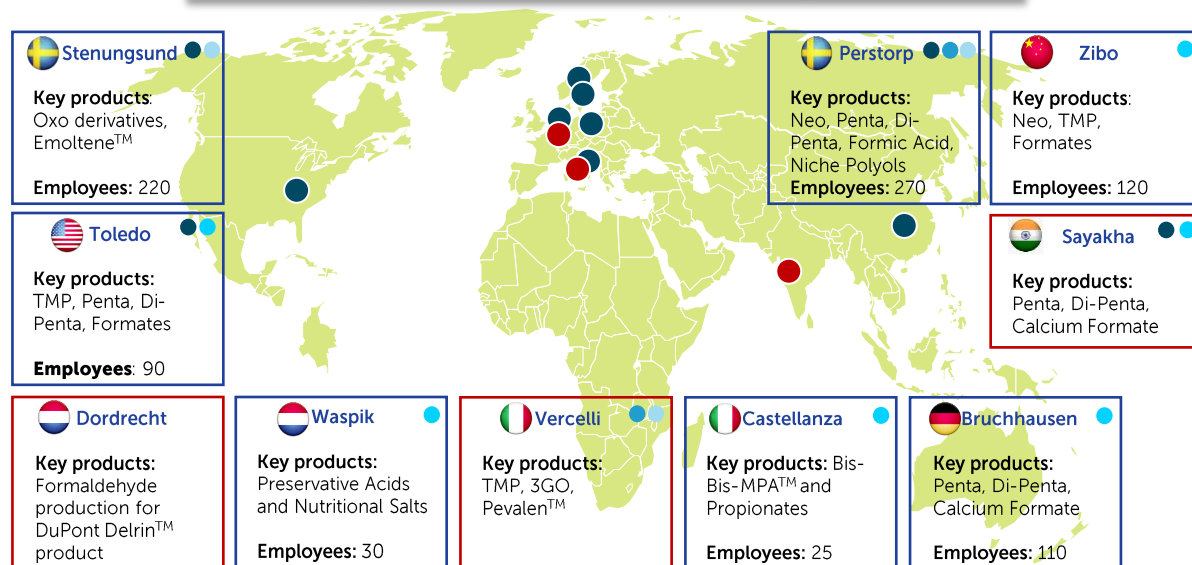
**Thank you**

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# Perstorp Holding AB ("Perstorp") is a niche, global specialty chemicals manufacturer with positive exposure to ESG trends

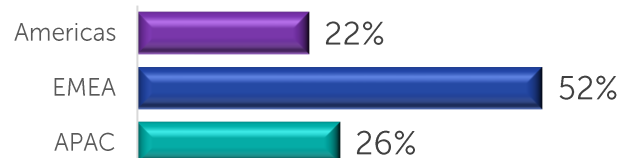
## Perstorp's Global Manufacturing Network



### Legend:

● Engineered fluids 
 ● Animal nutrition 
 ● Resins & Coatings 
 ● Plasticizers 
   Owned 
   Toller

### Net Sales by Geography FY2021 (EUR1.3 billion)

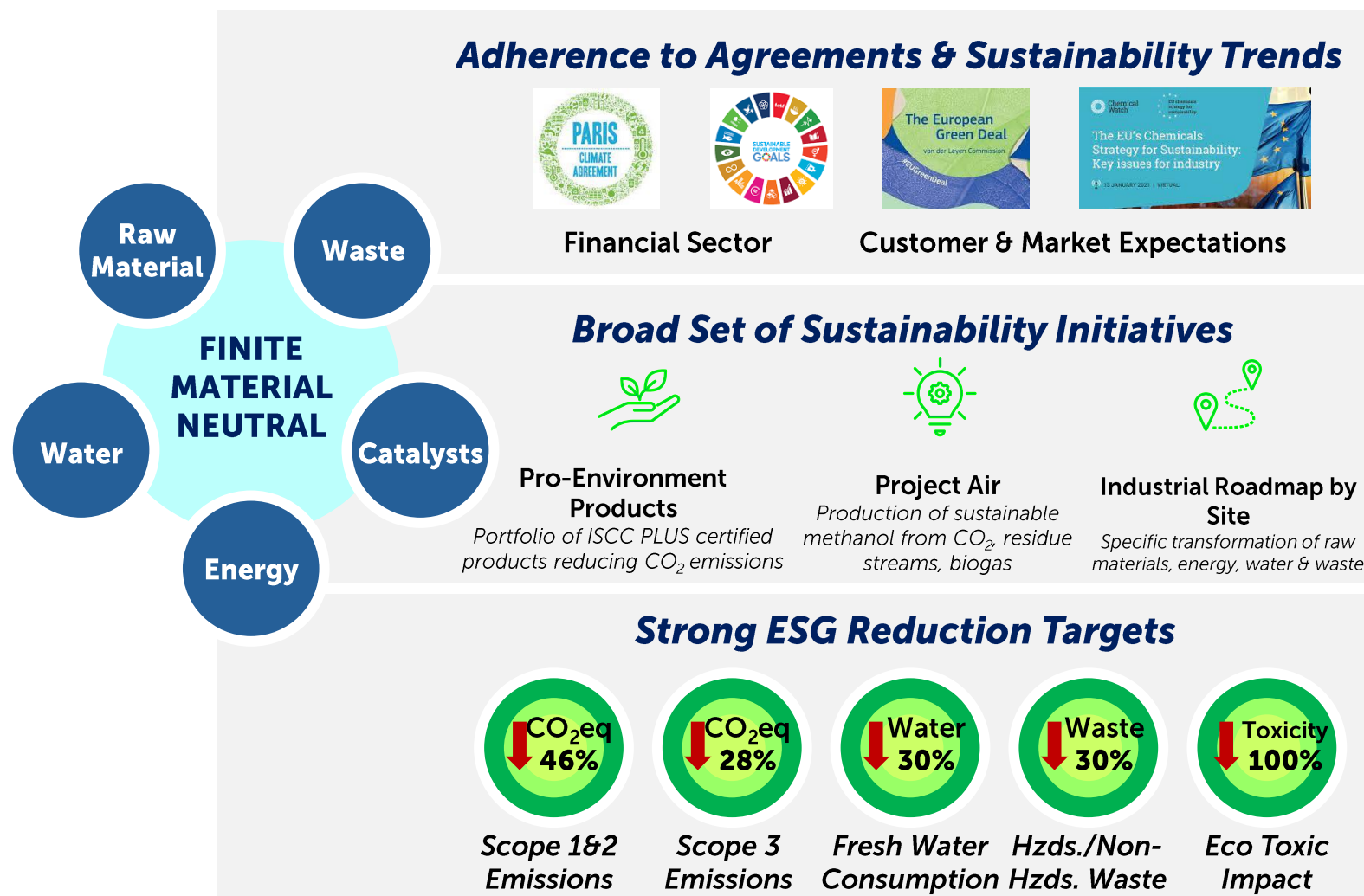


## Quick facts

- ❖ A **niche** specialty chemicals player for **Resins & Coatings, Engineered Fluids** and **Animal Nutrition**
- ❖ A **standalone** entity owned by a **private equity firm**, headquartered in **Malmö, Sweden**
- ❖ FY2021A: Sales of **EUR 1.33bn** and EBITDA of **EUR 248mn** (18.6% margin)
- ❖ **7 manufacturing sites** and **3 R&D centres** globally
- ❖ Presence in **26 countries** inc. US, Europe & APAC
- ❖ **~1,450 employees**
- ❖ **~130 product offerings** within **30 product groups**
- ❖ Serves **~2,600 customers** globally
- ❖ Proprietary oxo and polyol **chemistries**
- ❖ Committed to **sustainability** and **Finite Material Neutral** ambition



# With sustainability-focused transition at the core, the acquisition will accelerate PCG's sustainability efforts



## Portfolio of 20+ Pro-Environment Solutions



**Penta (Voxtar™)**  
**100%** sustainable by 2026  
(from 25% in 2021)



**TMP (Evyron™)**  
**75%** sustainable by 2026  
(from 5% in 2021)



**Neo (Neeture™)**  
**55%** sustainable by 2026  
(from 2% in 2021)

**...and many more<sup>1</sup>**

<sup>1</sup> Curalite™ Ox Pro, Charmor™ Pro, Holtac™ Pro, Pevalen™ Pro, 2-EHA™ Pro, Emoltene™ Pro and Valeric Acid Pro

End