

Investors Conference 2023.12



東聯化學(1710TW)

Oriental Union Chemical Corp.

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- Future prospects in this presentation reflects the company perspective based on the condition until now. If any change or adjustment of views later in the future, the company undertakes no obligation to update.

- Company Overview
- History
- Subsidiaries Chart
- Operation Overview-EG、GAS、SC
- Financial Overview
- Company Strategy



Company Overview

- Established 1975/12
- Capital NT\$ 8,857 million
- Chairman Douglas Tong Hsu
- General Manager Justin Tsai
- Main Business Manufactures and markets ethylene glycols, ethylene oxide, gas oxygen, gas nitrogen, liquid nitrogen, liquid argon, monoethanolamine, ethylene carbonate, polyethylene glycol, polyoxyethylene lauryl ether and methoxy polyethylene glycols.
- Production Sites Linyuan 、 Yangzhou

Linyuan



Yangzhou





History



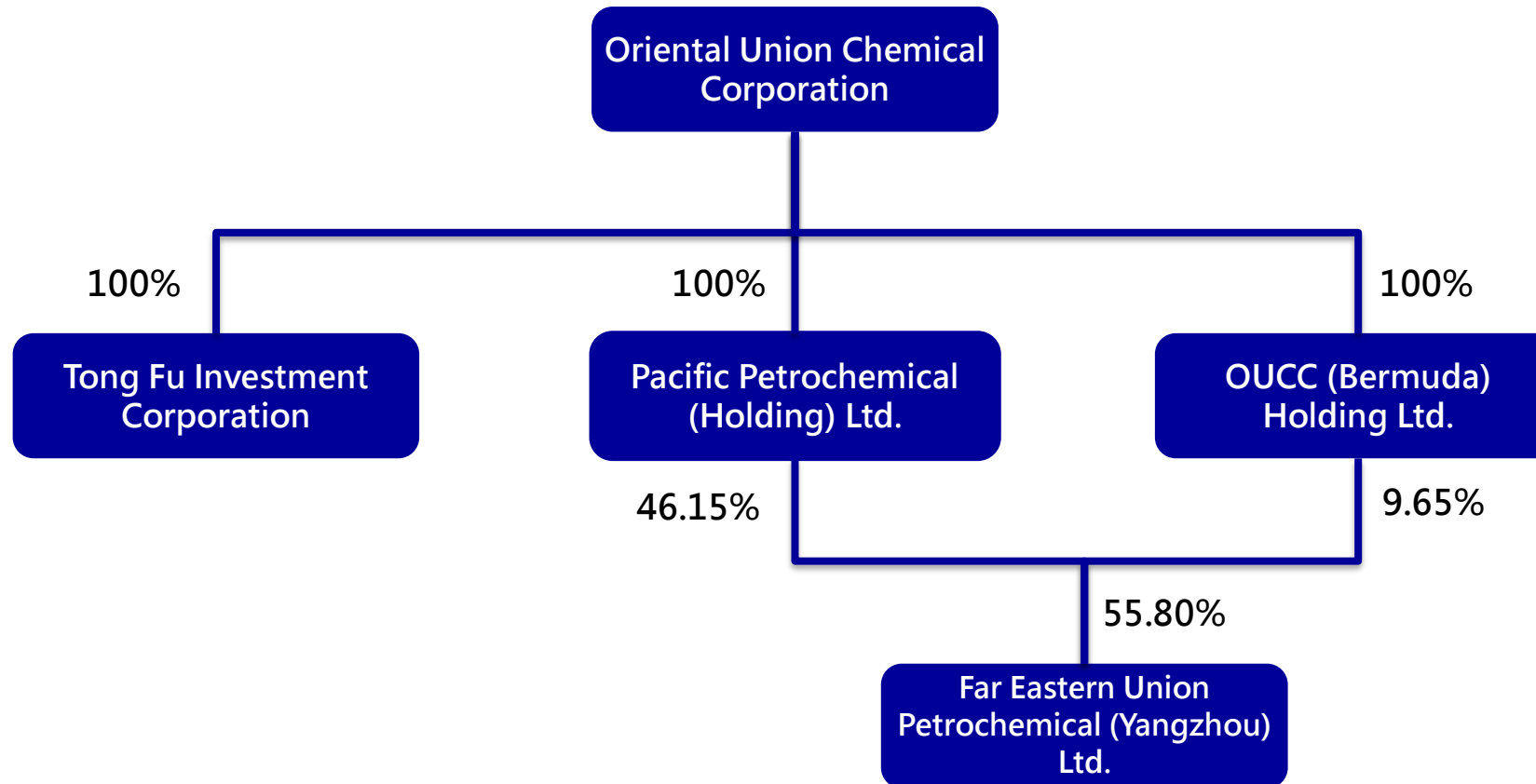
- **1975** Established.
- **1978** Kaohsiung - completed EO/EG plant construction.
- **1987** IPO
- **2002** Kaohsiung - completed EA & EC plant construction.
- **2005** Kaohsiung - completed pilot plant construction.
- **2011** Yangzhou - completed EA plant construction.
Kaohsiung - completed EOD plant construction.
- **2012** Yangzhou - completed EOD plant construction.
- **2015** Kaohsiung - started GHG inventory (in accordance with ISO 14064-1).
- **2016** Yangzhou - completed EO/EG plant construction.
- **2017** Kaohsiung - completed EB plant construction.
- **2022** Kaohsiung - completed E-LCO₂ plant construction.
- Kaohsiung - completed EDA, PEA & EOD-II plant construction.

Key Plants' Capacity Change:

Location	Plant Type	Year	Capacity Change
Kaohsiung	EO/EG plant	1978:	EG 125KTA
		2015:	EO increased to 360KTA & EG increased to 300KTA
	EA plant	2017:	EG increased to 360KTA
		2002:	EA(I) 40KTA
		2008:	EA(II) 40KTA
		2015:	EA(II) increased to 60KTA
EB plant	2017:	EA(I) reconstructed to EB 20KTA	
	2022:	increased to 40KTA	
EC plant	2002:	20KTA	
	2008:	increased to 60KTA	
Yangzhou	EO/EG plant	2016:	EO 400KTA & EG 500KTA



Subsidiaries Chart





Three Business Groups

Ethylene Glycols

A photograph showing several clear plastic bottles of ethylene glycol with blue and red caps, set against a light blue background.

Industrial Gases & L-CO₂

A photograph of a blue printed circuit board (PCB) with various electronic components and traces, representing industrial gases and L-CO2.

Specialty Chemicals

A photograph of several open paint cans containing various colored liquids (red, yellow, green, blue, purple), representing specialty chemicals.

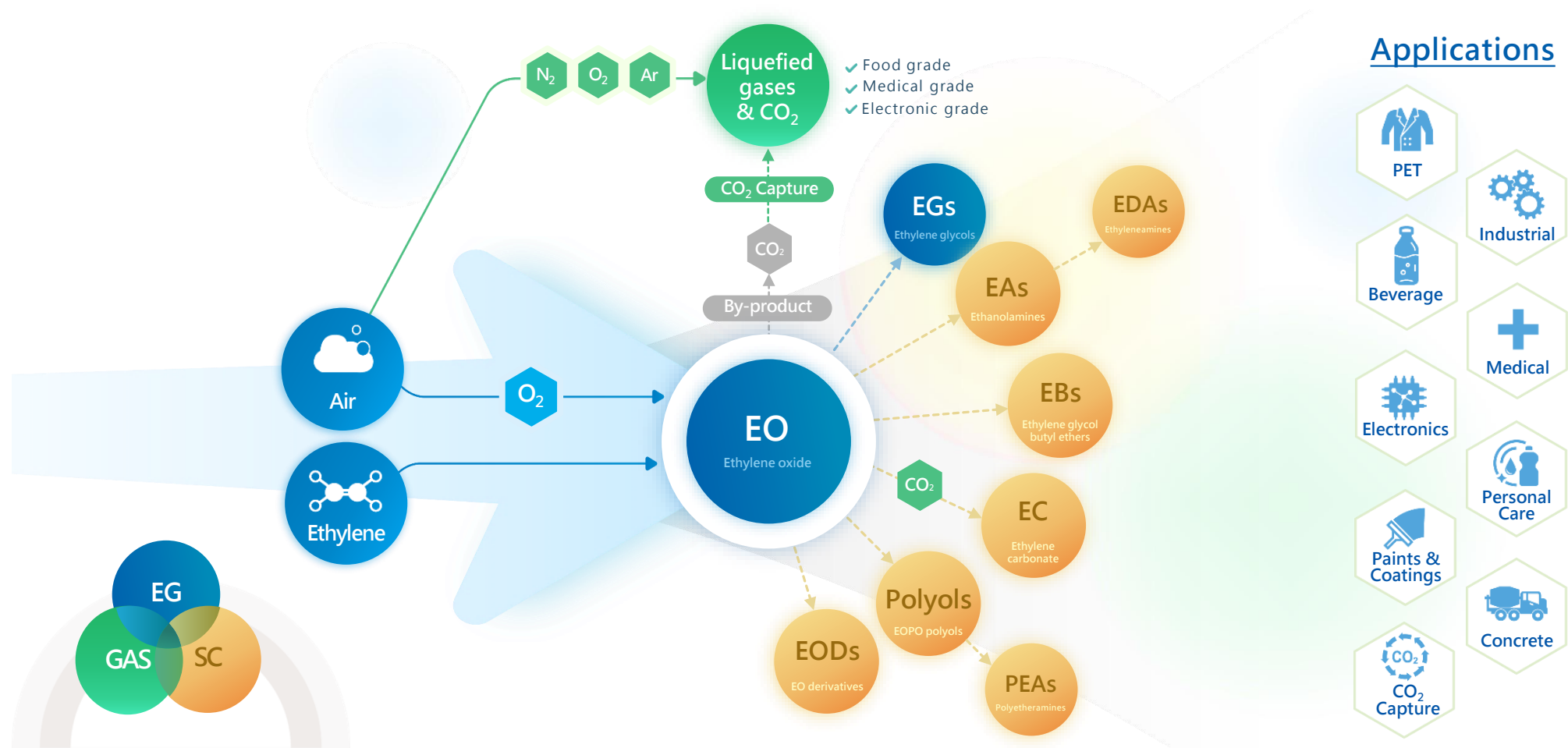


Product & Capacity

Group	Products	Linyuan	Yangzhou	Total
EG	EO	360kta	400kta	760kta
	EG	360kta	500kta	860kta
GAS	O ₂ 、N ₂ 、Ar	1,000kta	800kta	1,800kta
	E-CO ₂	17kta		17kta
SC	EA	60kta	40kta	100kta
	EB	30kta		30kta
	EC	80kta		80kta
	EODs	100kta	66kta	166kta
	PEA	8kta		8kta
	EDA	20kta		20kta

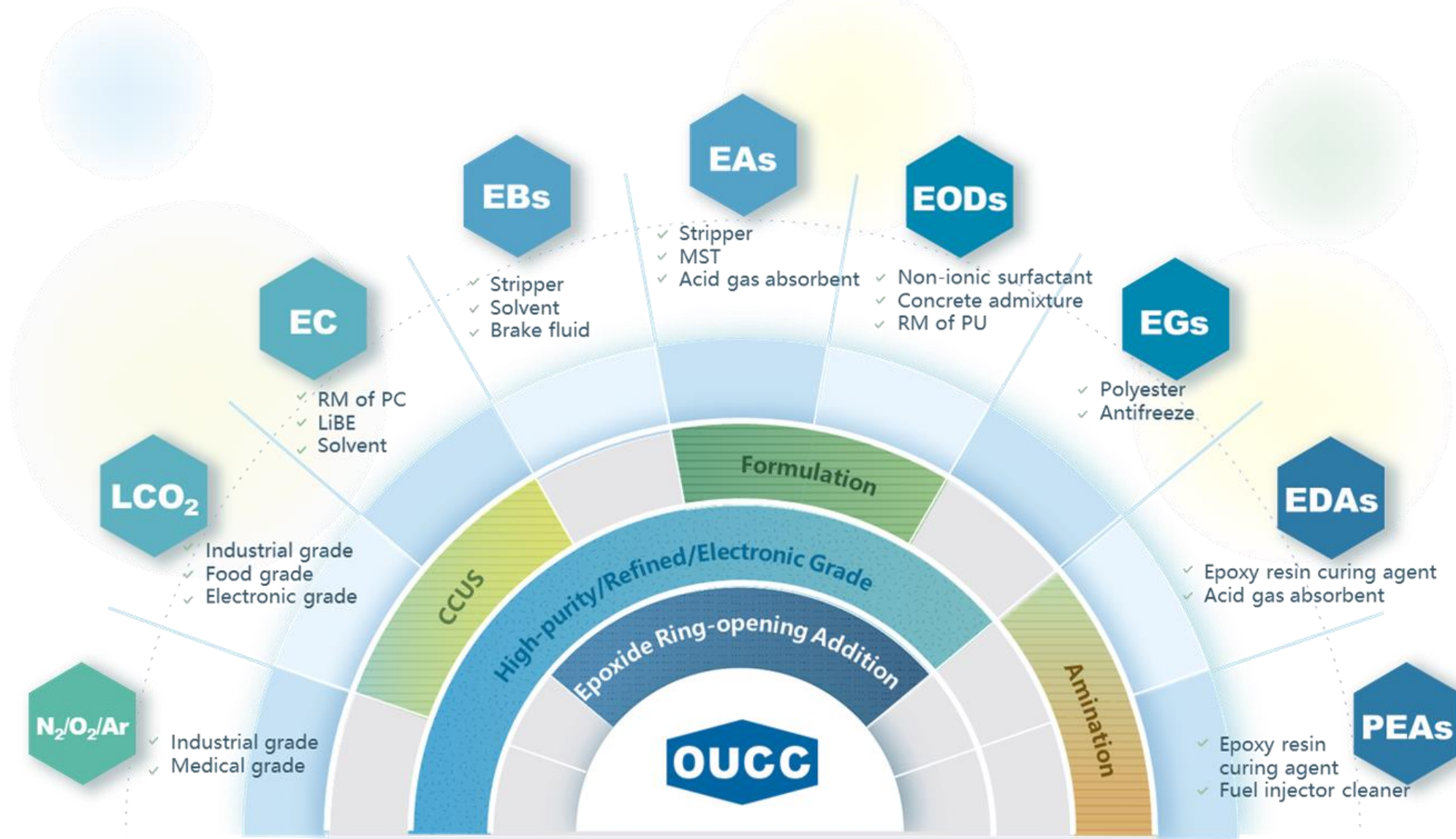


Product Value Chain



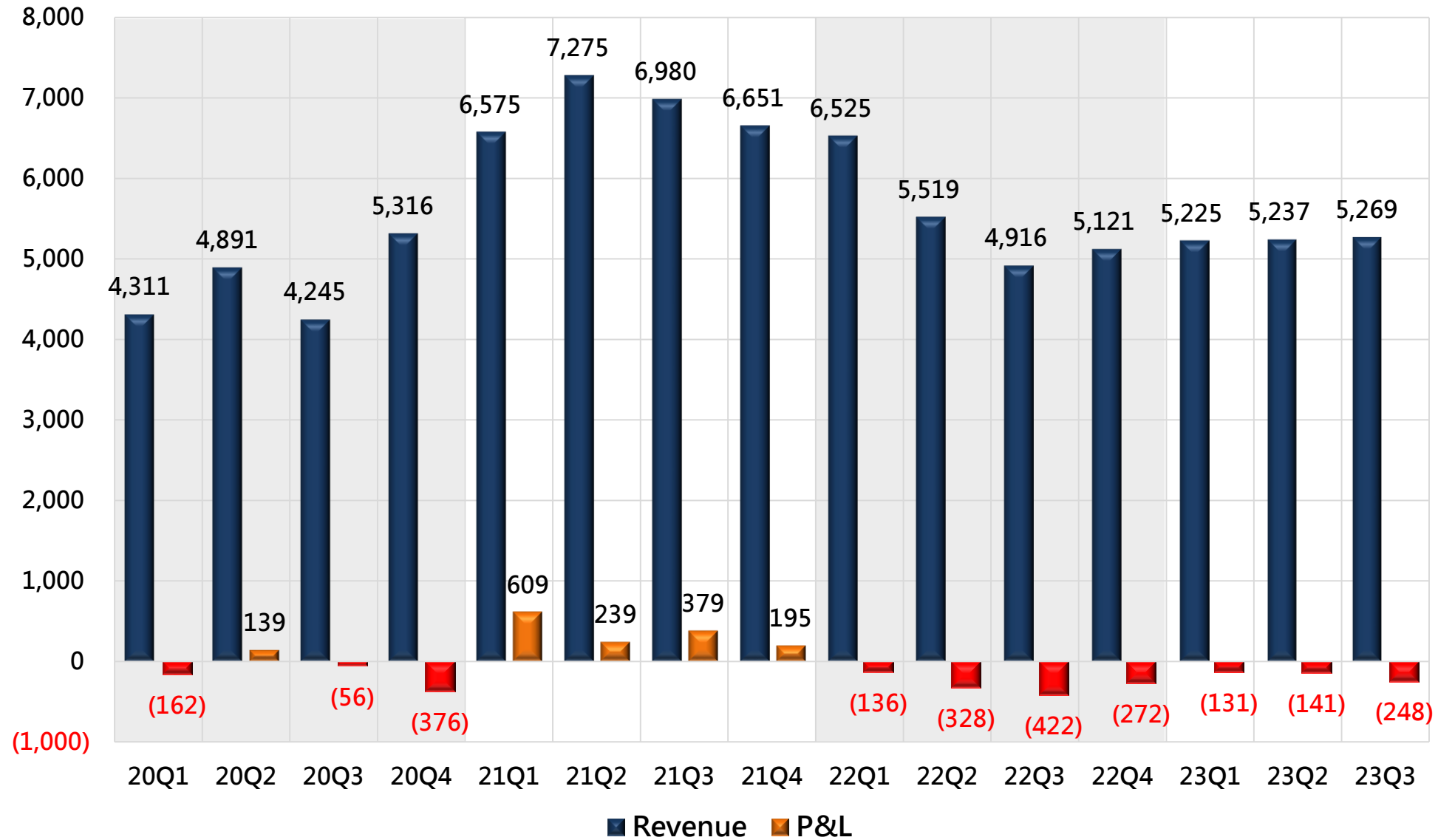


Products & Applications





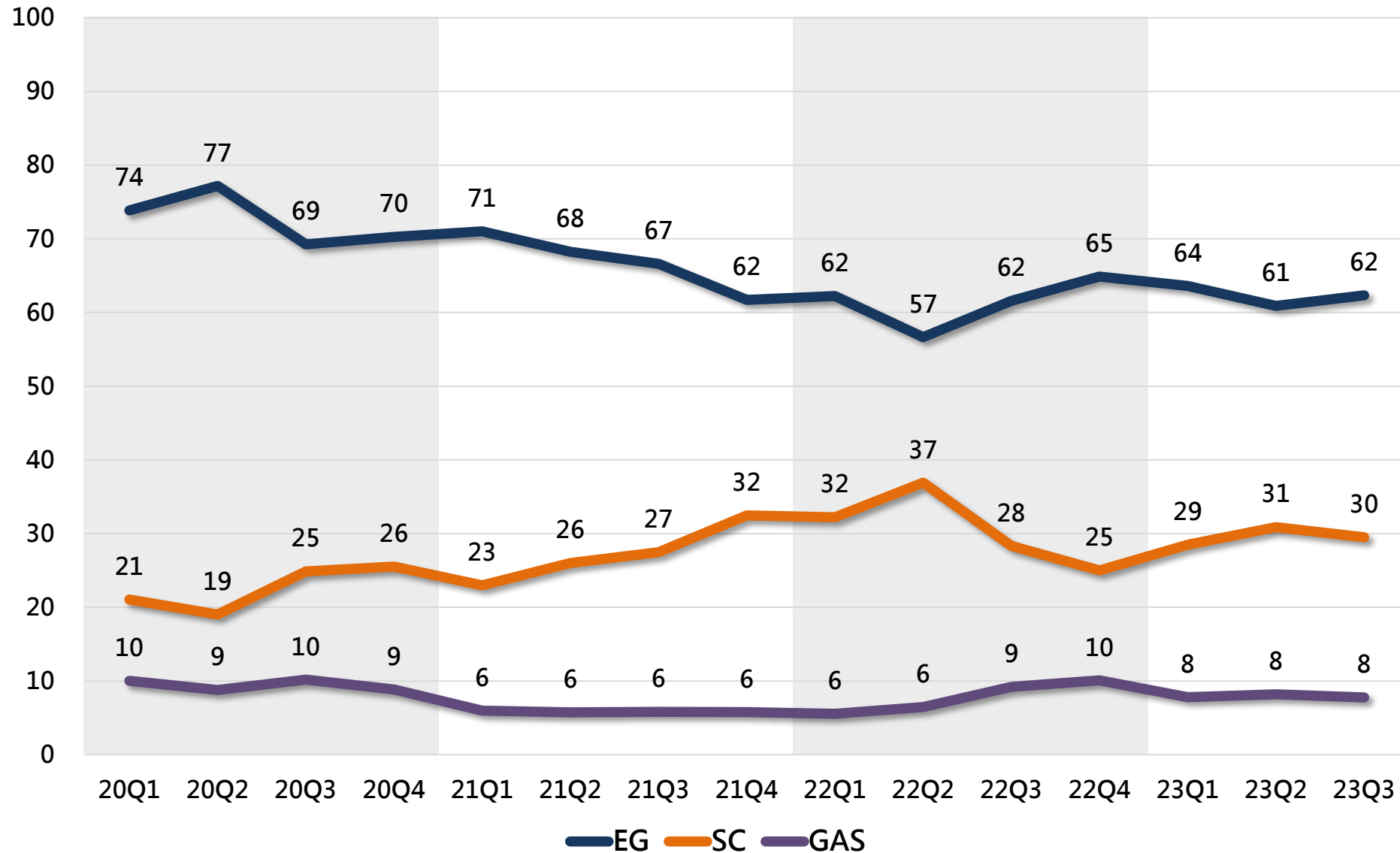
Operation Overview-Revenue · P&L



NT\$ million

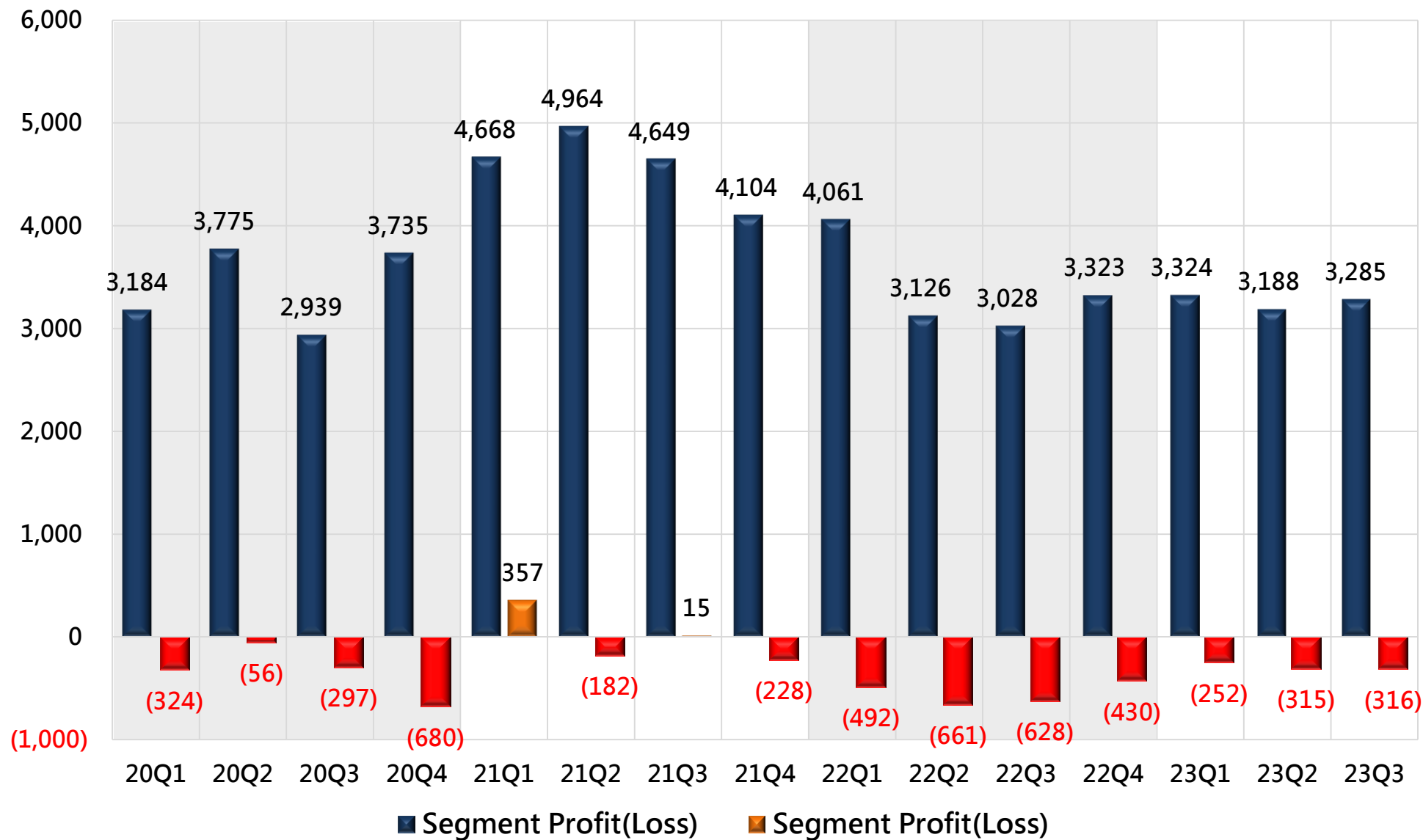


Operation Overview-Sales Ratio





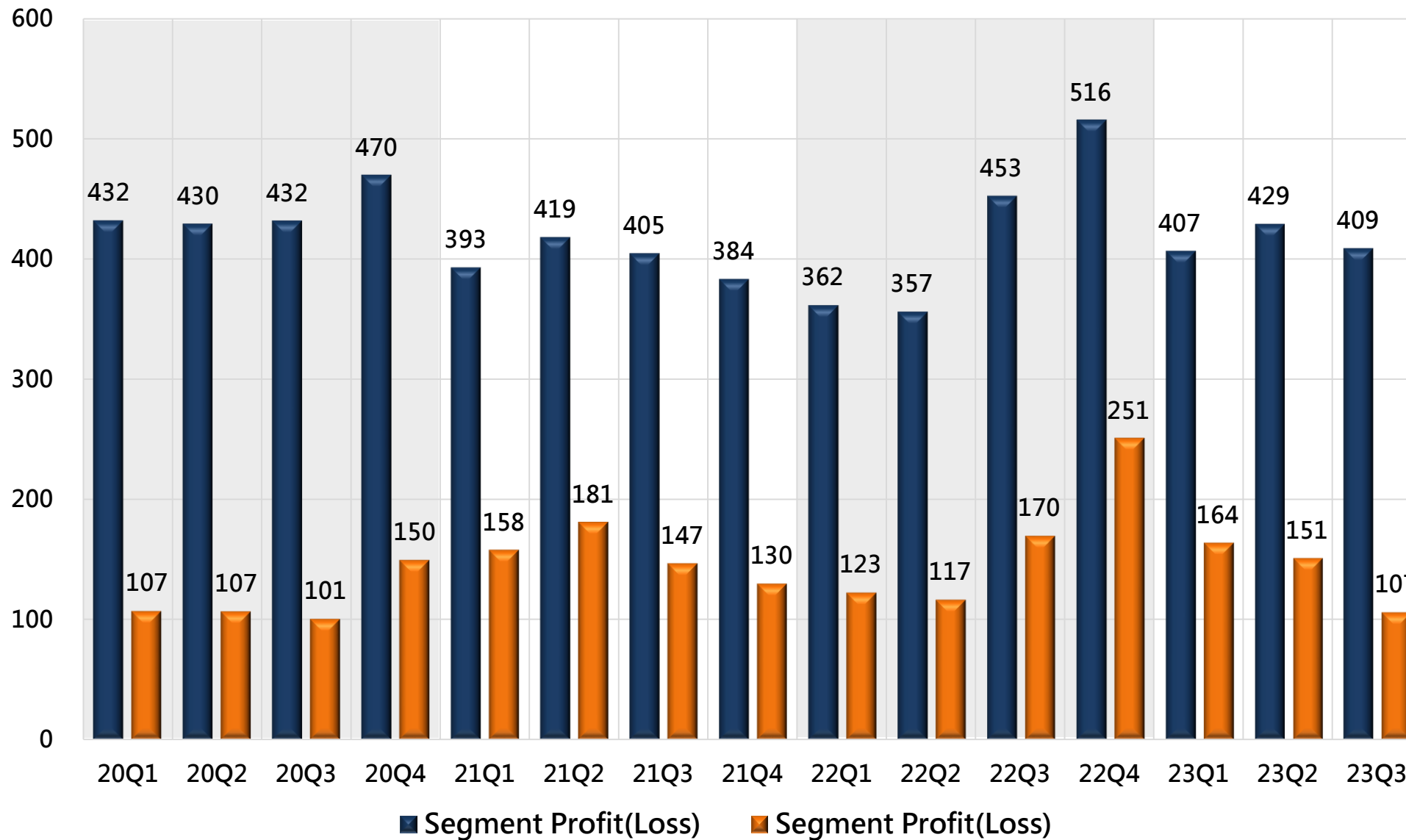
Operation Overview-EG



NT\$ million



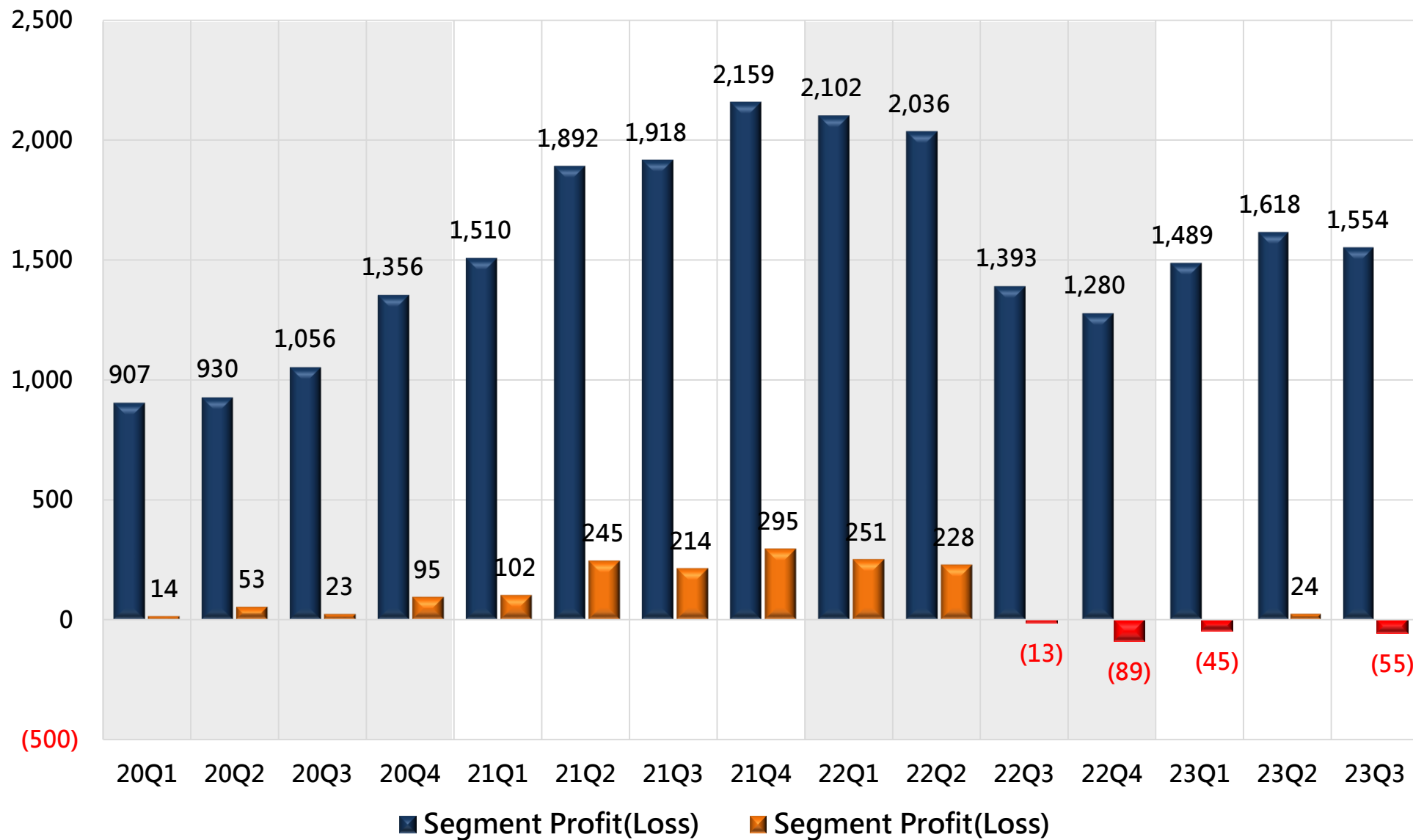
Operation Overview-GAS



NT\$ million



Operation Overview-SC

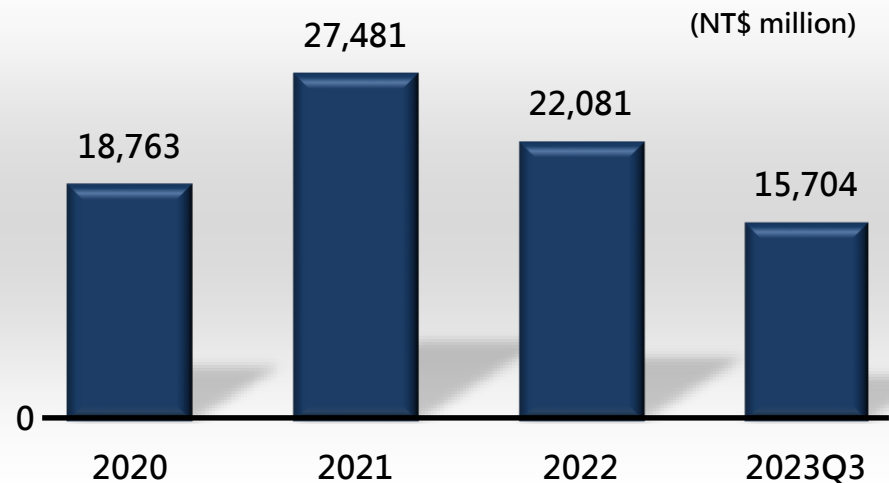


NT\$ million

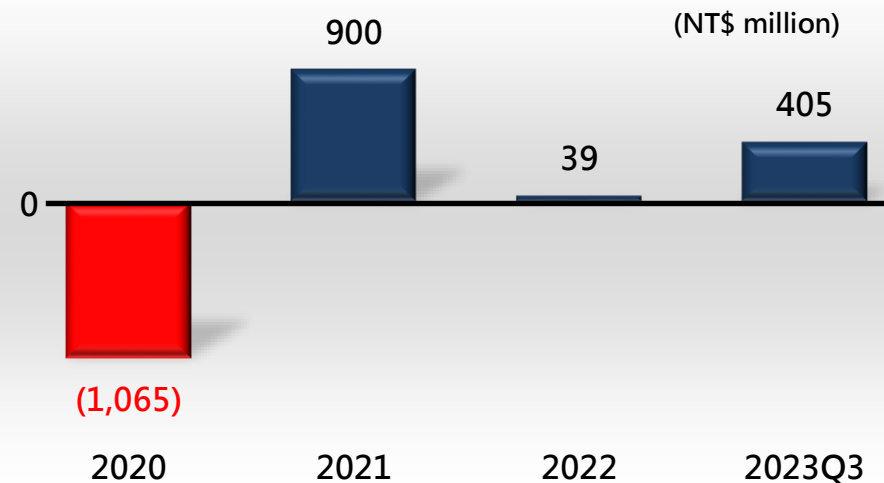


Financial Overview

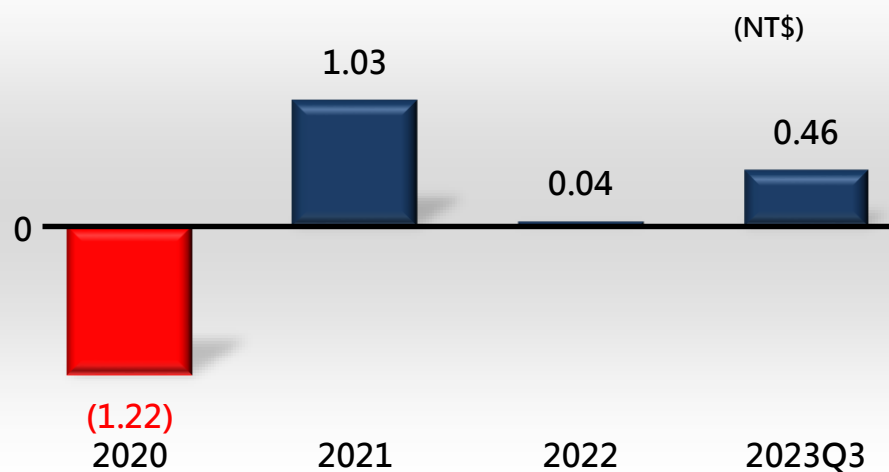
Consolidated Operating Revenue



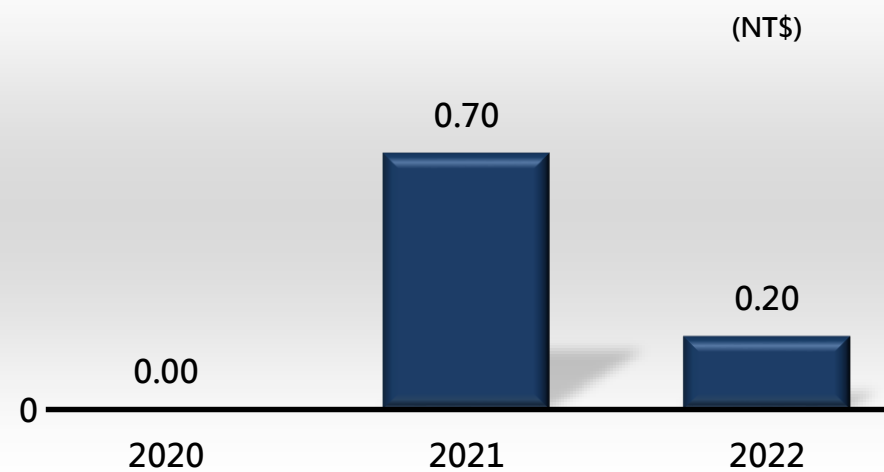
Net Profit(Loss)



EPS

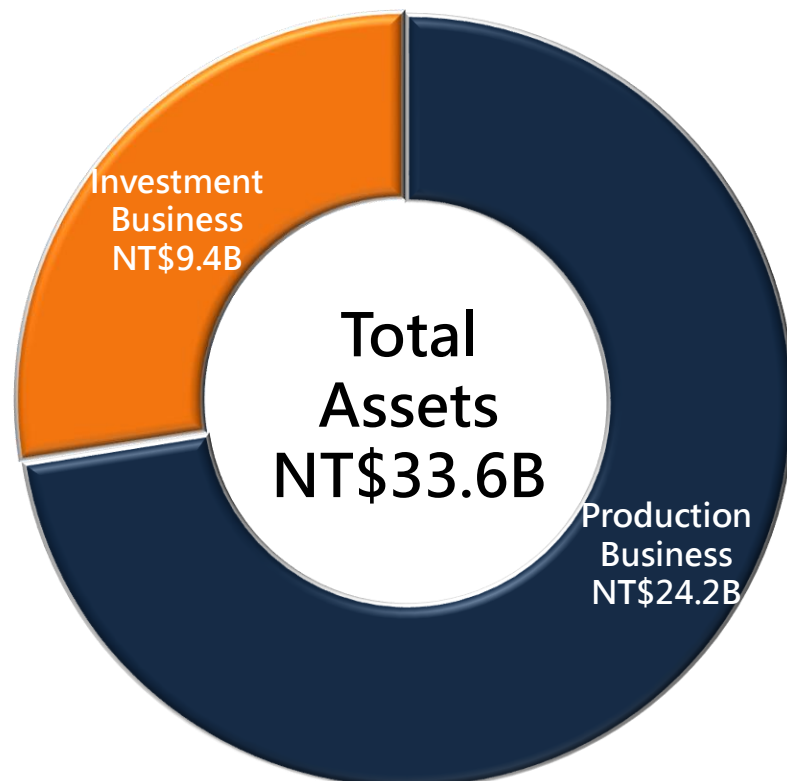


Cash Dividend





Consolidated Balance Sheets(2023/9/30)



Financial Structure

Liabilities NT\$18.4B	Interest-bearing Debt	NT\$14.9B
	Interest-free Debt	NT\$3.5B
Equity NT\$15.2B	Equity %	45%
	BVPS	NT\$14.1



Strategy(I)-Technology Transformation



- Develop green processes and green materials
- Develop plastic recycling, material modification and biodegradable polyester technologies



- Continue to invest in technology research and development, improve chemical properties, and achieve the purpose of carbon fixation and carbon reduction
- Carbon embedment, carbon capture technology and energy integration, development of CO₂ chemical low-carbon process



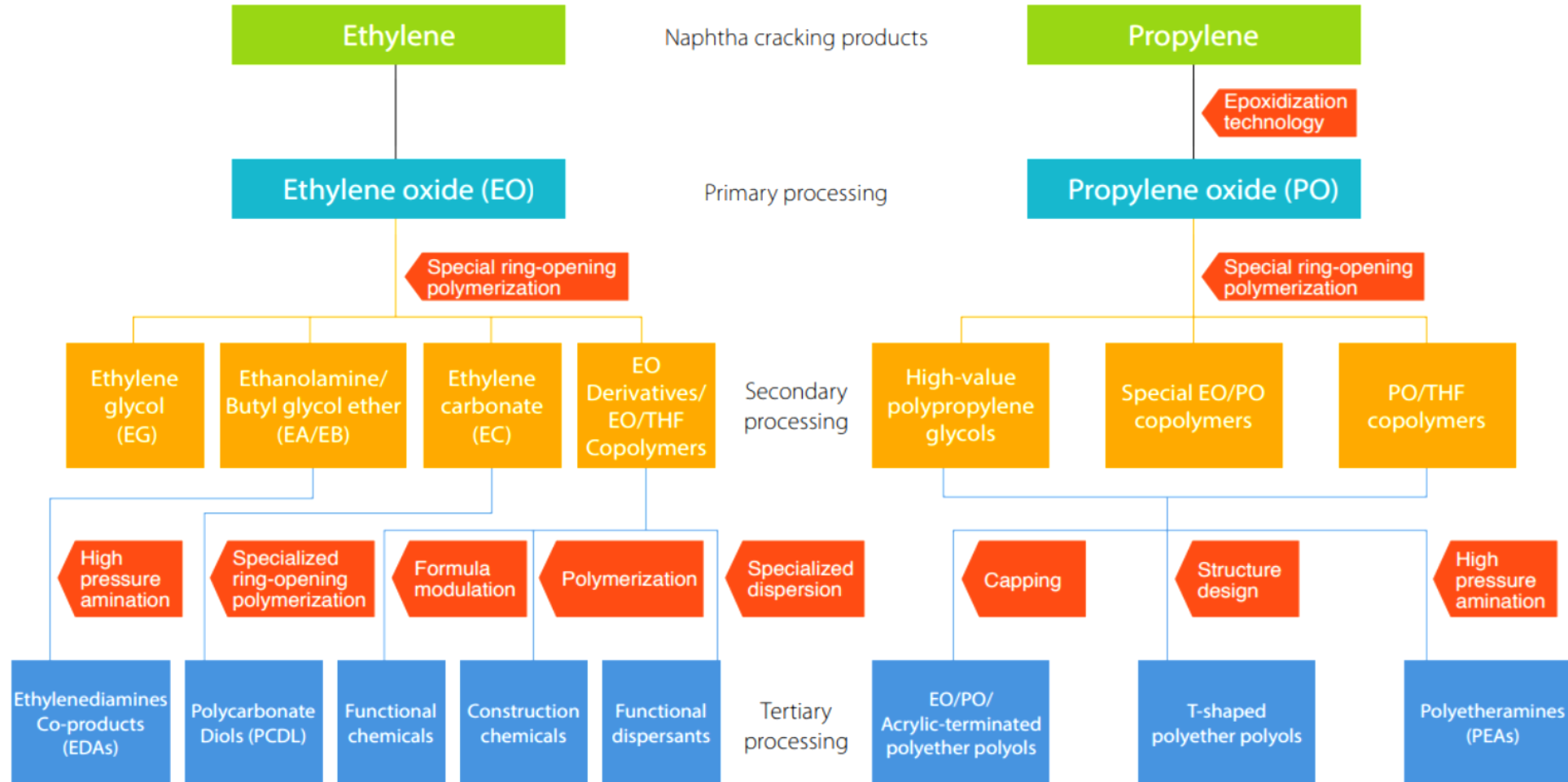
- Master special application chemicals and materials
- Focus on high-tech efficiency, link environmental protection, electronics, automobile and other industries with overall environmental solutions



Strategy(I)-Innovative Technology

New technology items for the ethylene product chain

Technology map for the propylene product chain





Strategy(II)-Product Transformation

1 EO/EG/GAS

EO EG GAS

EO

EG

GAS

E-CO2

2 Surfactants & Performance Chemicals

Surfactants Functional aids Functional lotion

Surfactants

Functional aids

Functional lotion

Green product

Customized solution

3 Solvent Chemicals

EA EB EC

EA

EB

EC

4 Construction Chemicals

PCE Functional aids Grinding additives

PCE

Functional aids

Grinding additives

Mortar additives

Customized solution

5 Fine Chemicals

EODs PODs EOPO Copolymers

EODs

PODs

EOPO Copolymers

PCDL

Polyester polyol

6 Amine series

Polyether amines Ethylene amines EA

Polyether amines

Ethylene amines

EA



Strategy(II)-Innovative Product

Category	Subject	Contents
Polyetheramine	Monoamines, diamines, polyamine and polyetheramine derivatives	<ul style="list-style-type: none"> ● OUCC owns the exclusive technology for direct amination of alcohols and ethers, which retains the excellent properties such as low viscosity, high permeability, anti-yellowing and heat resistance. ● They are used in high-performance composite materials, polyurea, and anti-scratch, weatherresistant materials. Examples include large high-strength structures such as wind turbine blades, dams, bridge piers, as well as cement additives, epoxy flooring materials, paints, decorative ornaments.
Ethanolamine reductive amination co-products	Ethylenediamine, diethylenetriamine, aminoethyl ethanolamine, trivinyltetramine, piperazine and related co-products	<ul style="list-style-type: none"> ● OUCC owns the exclusive technology for direct amination of alcohols and ethers, and the main products are ethylenediamines, diethylenetriamines, triethylenetetramines, aminoethyl ethanolamines, piperazine and related products. ● They can be applied to petroleum, pesticide, medicine, light textile, chemical fiber, paper making, metallurgy, electroplating, solvent, resin additive and other fields.



Strategy(III)-Carbon Management Targets



Schedule	Target
2021 Results	<ul style="list-style-type: none"> Take 2015 as the base year, 1% reduction as the average annual target Carbon reduction approx. 2,992 t-CO₂e/year in 2021, with a target achievement rate of 0.93% 2017-2021: 5 years cumulative reduction of 83,000 t-CO₂e, of actual reduction rate 26%; the target achievement rate 100%
Short-term (2022)	<ul style="list-style-type: none"> Take 2015 as the base year, 1% reduction as the average annual target
Mid-term (until 2025)	<ul style="list-style-type: none"> Annual reduction target: 2% per year, of reduced volume 6,420 t-CO₂e / year Evaluating and planning high-efficiency, low-carbon cogeneration system, and to purchase RECs
Long-term (until 2030)	<ul style="list-style-type: none"> Emissions of 2030 reduced by 20% compared to 2015 Planning the achievable targets based on Climate Change Act and the schedule of carbon reduction and zero emissions proposed by the government's Industrial Response Team

Note: 2015 greenhouse gas emission: 320,946 t-CO₂e.



Strategy(IV)-Sustainable Management System



Standards

- GRI Standards : Core Option
- Sustainability Accounting Standards Board, SASB : Chemical Standard
- Task Force on Climate-Related Financial Disclosures



Environment

- Committed to improving process design, pursuing green production, minimizing the impact of operating production on the environment, and implementing balanced development of industrial production and environmental protection.
- OUCC has implemented the ISO 14001 Environmental Management System in 1998, actively promoting various pollution prevention improvements and striving to reduce the risk of pollutant emissions.
- OUCC introduced the ISO 50001 Energy Management System for energy saving. Through innovative R&D, the circular economy model is integrated to reduce energy consumption.



Society

- OUCC values the importance of industrial safety & health and human rights, and has obtained ISO 45001:2018 certificate to build a friendly and safe workplace environment.
- The Linyuan Plant was awarded the recognition of "5 Million Accident-Free Man-Hours Record" in 2021, and continue to progress towards the goal of a safe environment and a healthy workplace.
- OUCC adheres to the core spirit of the "Universal Declaration of Human Rights," the "ILO Declaration," and "The United Nations Global Compact" and "Responsible Business Alliance Code of Conduct." We abide strictly by all labor-related laws and regulations. The company has also formulated internal labor-related rules and management mechanisms to achieve equality and create a friendly working environment.



Governance

- In addition to pursuing economic stability, OUCC continues to integrate and develop core competencies, actively seeks potential cooperation with global companies, and introduces the most advanced chemical and biochemical technologies with the aim of creating new profit potential.
- In view of corporate operative responsibility, the safeguard of shareholders' lawful rights as well as others stakeholders' interests, OUCC implements the robust governance, improves business operation to maximize shareholders' interests.
- For the continuous strengthening in corporate governance and management system, the corporate governance officer was installed in 2021 accountable for the work promotion.
- Adherence to the OUCC spirit of entrepreneurship – "sincerity, diligence, thrift, prudence, and innovation" to steadily cope with future challenges and achieve sustainability

Thank You
Q&A



ORIENTAL UNION CHEMICAL CORPORATION