

Mitsubishi Chemical Group Investor Day 2023

February 24, 2023



What you will hear today

- We have achieved solid progress with our Forging the future strategy
- We have an executable plan to continue our transformation journey
- We will deliver 700 oku yen EBITDA growth through innovation focused on market needs
- We will deliver 1,350 oku yen cost improvements, a majority by FY2023
- We will exit petrochemicals and carbon products, and we are making progress
- We will become more digital, leaner and empowered organization
- We will invest for the future and improve the balance sheet and returns to shareholders
- AND we will pursue KAITEKI, the well-being of people and the planet



The New Mitsubishi Chemical Group (MCG)



Forging the future update



Business growth plans



**Our vision
for the future**

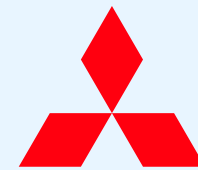
Driving the
**Forging the future
transformation**
resiliently despite current
economic headwinds

The New MCG



Purpose – Our north star –

We lead with innovative solutions
to achieve KAITEKI,
the well-being of people and the planet

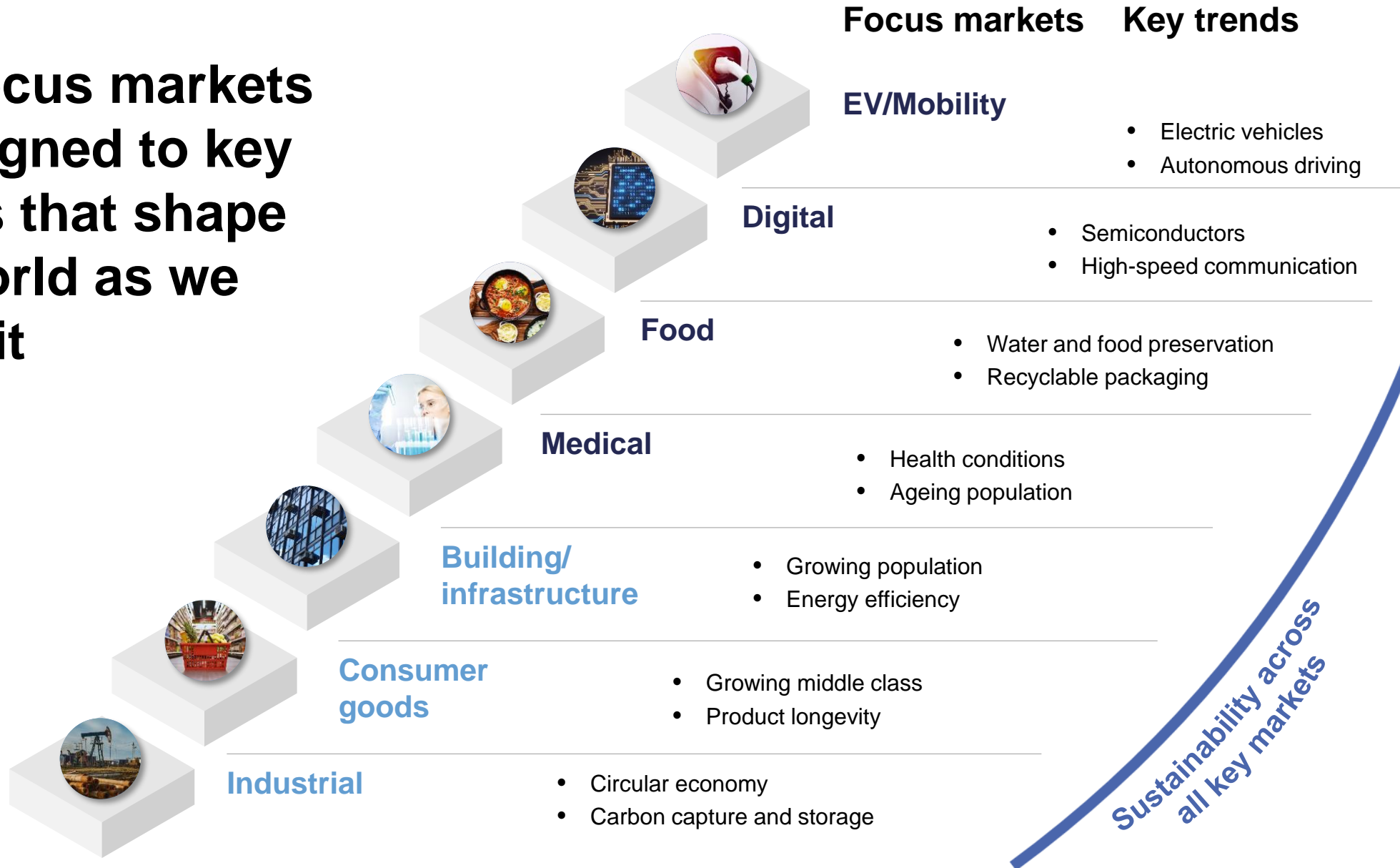


MITSUBISHI
CHEMICAL
GROUP

Science.
Value.
Life.

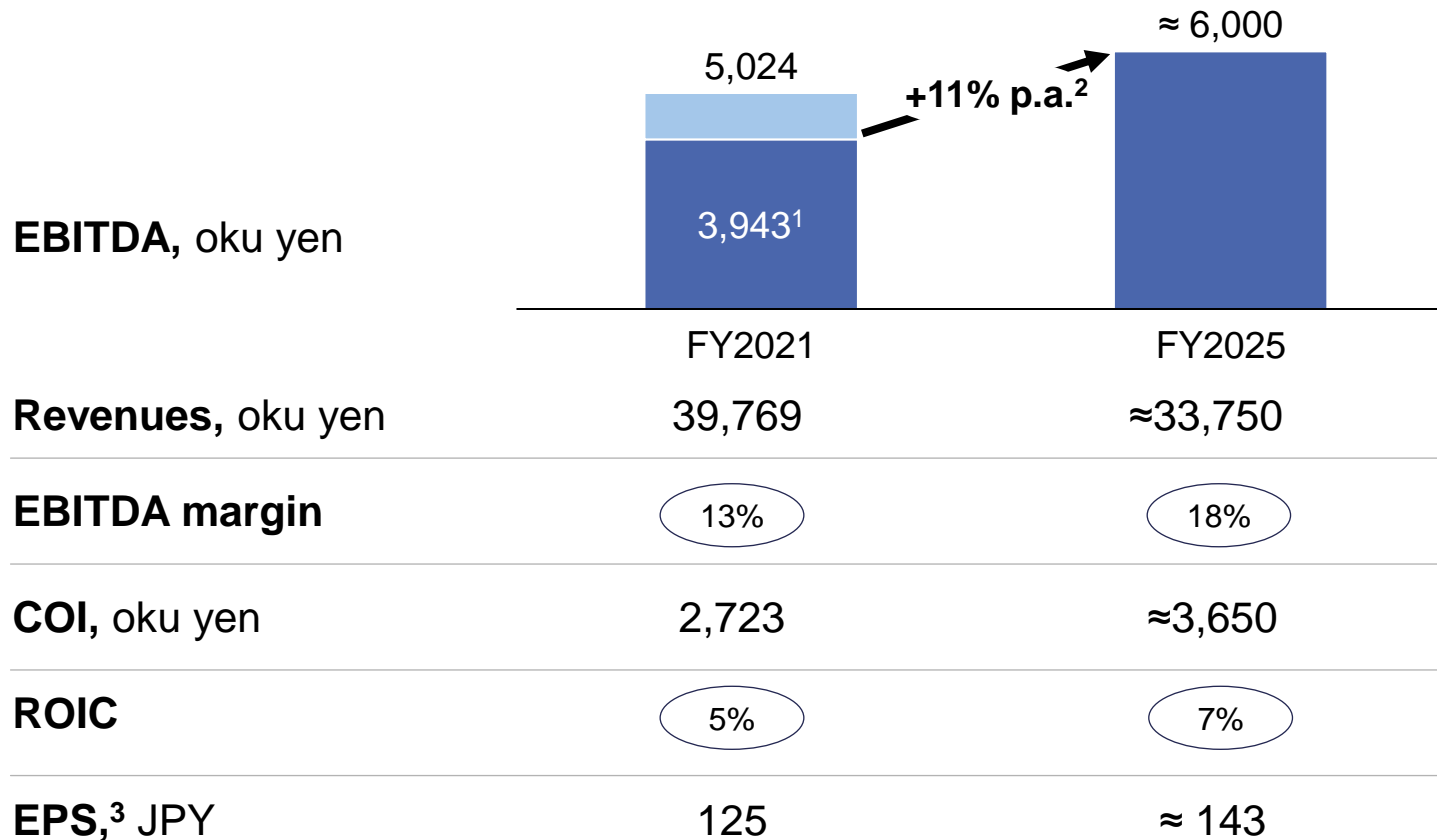
We deliver Value to our people, society, and
shareholders enabled by Science, and
contribute to Life

Our focus markets are aligned to key trends that shape the world as we know it



We remain committed to our transformative Forging the future targets

Financial targets



1. FY2021 EBITDA excluding Petrochemicals & Carbon Products
2. Organic EBITDA growth excluding Petrochemicals & Carbon Products
3. Basic EPS

Non-financial targets

**GHG reduction,⁴
Scope 1 and 2** **↓ 30%**
by FY2030 vs. FY2019

**Waste
reduction⁵** **↓ 50%**
by FY2025 vs. FY2019

**Customer
satisfaction⁶** **↑ 6 pp**
by FY2025 vs. FY2020

**Employee
engagement⁷** **↑ 15 pp**
by FY2025 vs. FY2020

**Diversity among
management⁸** **↑ 7 pp**
by FY2025 vs. FY2020

4. Estimated based on MCG's 29% reduction target incl. petrochemicals and carbon products, 5. Reduction of land fill waste by FY2025, 6. Level of customer satisfaction based on annual customer survey, 7. Percentage of favorable responses to set items in the employee awareness survey, 8. Percentage of managerial staff with a diversity attribute. Target 40%
Please note: pp = percentage points

Forging the future update



Our Forging the future strategy aims at creating value across 5 key pillars



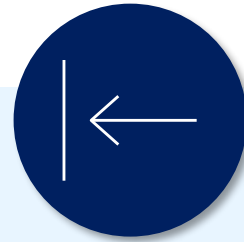
Growth, performance, sustainability

Shift to global profitable markets
Focus on selected end applications
Become a sustainability leader



Strategic cost transformation

Focus on Health Care restructuring, operational excellence and supply chain optimization, as well as procurement



Business to exit

Exit the petrochemicals and carbon products business



Leaner, digital, empowered¹

Shift to a leaner, digital, and empowered organization and workforce



Strategic capital allocation

Fuel organic growth
Improve balance sheet for funding future growth

Three primary pillars will drive EBITDA margin from 13% to 18%

Incremental FY2021-FY2025 EBITDA effect

EBITDA margin

13%

18%

Original Forging the future commitment: 1,000 oku yen cost savings

≈ 1,350

≈ -1,100

≈ 6,000

EBITDA bridge,
oku yen

5,024

≈ 700

EBITDA
FY2021

**Growth,
performance,
sustainability**

**Strategic cost
transformation**

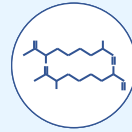
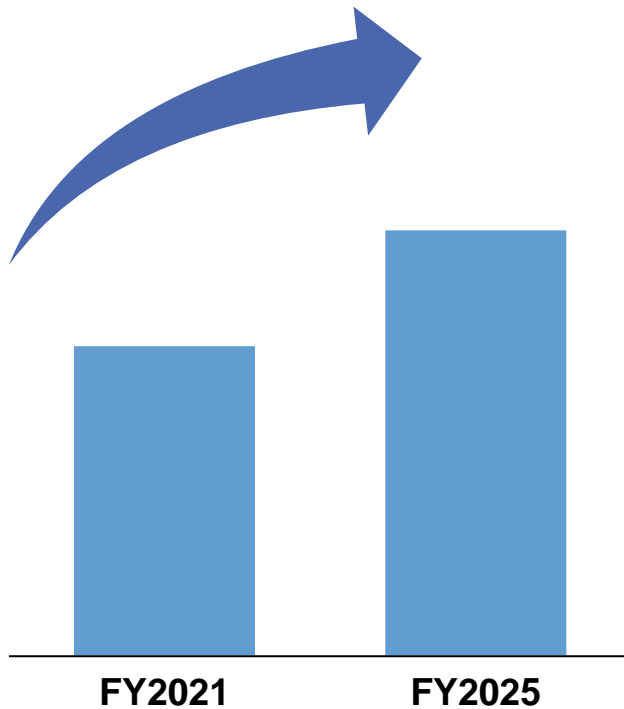
Business to exit

EBITDA
FY2025



Our business growth and performance key drivers

Approximately 700 oku yen EBITDA increase from “growth, performance, sustainability” pillar



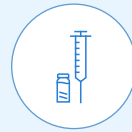
Performance Products

- Make entire portfolio available globally
- Shift to market-oriented organization



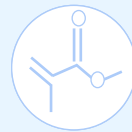
Industrial Gases

- Grow 4 global regions
- Reinforce and develop capabilities



Health Care

- Maximize value of priority products in Japan and the US
- Strengthen partnering and establish new sales/development alliances



MMA

- Build on global #1 position
- Expand alpha technology



We will grow supported by sustainability trends while becoming more sustainable in our operations

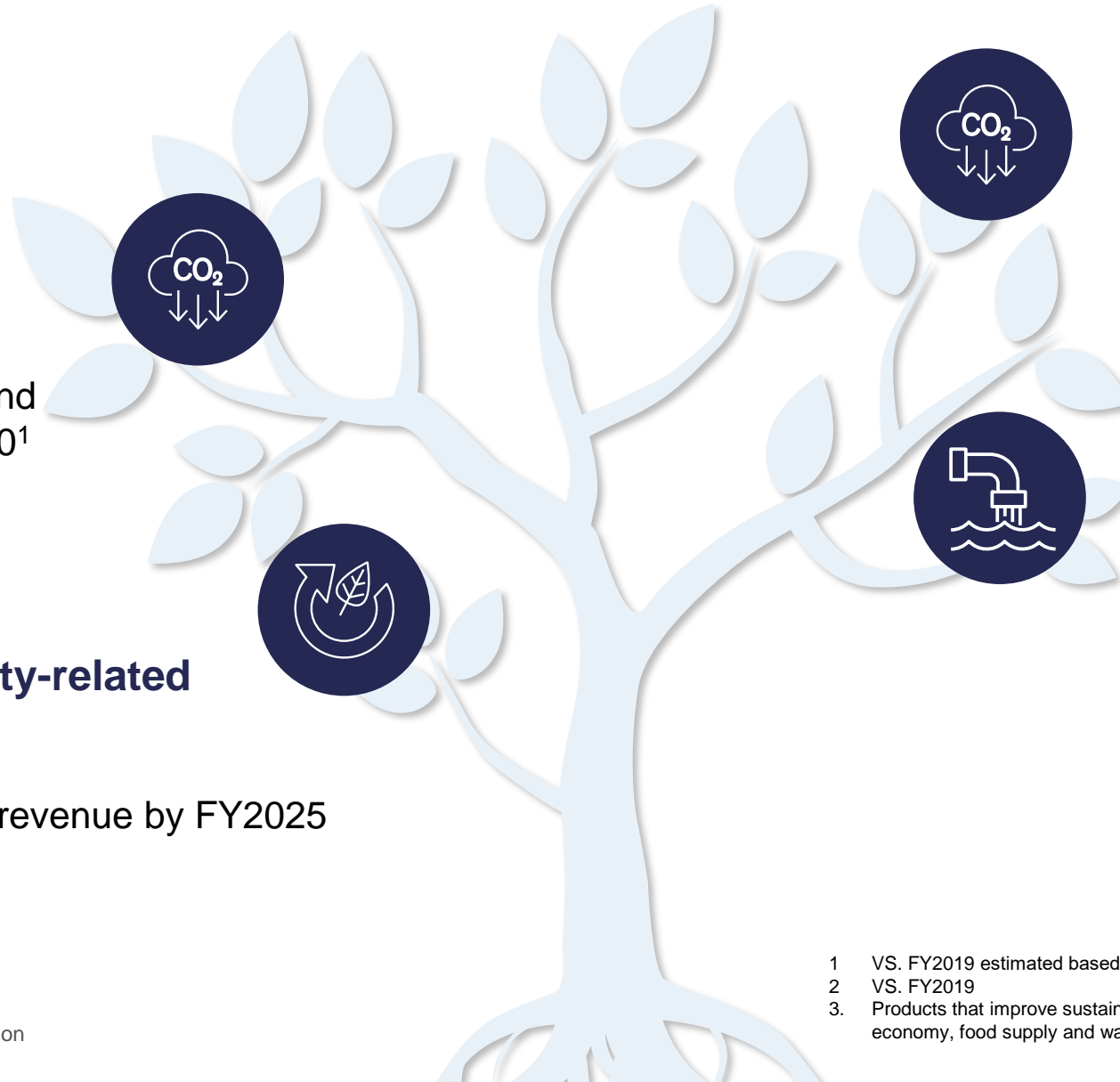
Emission
reduction

-30%

reduction in scope 1 and
2 emissions by FY2030¹

Sustainability-related
products³

20% of revenue by FY2025



Net zero

by 2050

Waste and water
management

-50%

rate of reduction of landfill
waste by FY2025²

1 VS. FY2019 estimated based on MCG's 29% reduction target incl. Petrochemicals & Carbon Products
2 VS. FY2019
3. Products that improve sustainability themes, particularly those of climate change, circular economy, food supply and water conservation



Innovation underpins MCG's growth performance and sustainability

New guiding principles

End-market focus

- Develop Integrated Innovation Strategies with optimal balance of internal R&D and open innovation in each focus market
- Agile product development process as one team together with end-customers to deliver value on time
- Meet changing demand of markets: Now, tomorrow and the day after tomorrow

New digital capabilities

- Advanced Analytics and Materials Informatics enabling productivity improvements and shorter lead times for customers

More efficient process

- Seamless transition between long-term research platforms and late-stage product development in collaboration with business
- Aggressive leverage of open innovation: Universities, venture investments, and corporate partnerships across the world

New business fields

- Establish basis for the next generation of high-profit, high-growth business clusters to enable long-term growth

Simplified roadmap for EV/Mobility → Battery → Electrolyte



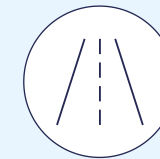
Now

Unique additives to improve capacity and efficiency of liquid electrolytes



Tomorrow

Transition to gel electrolytes to balance capacity and safety



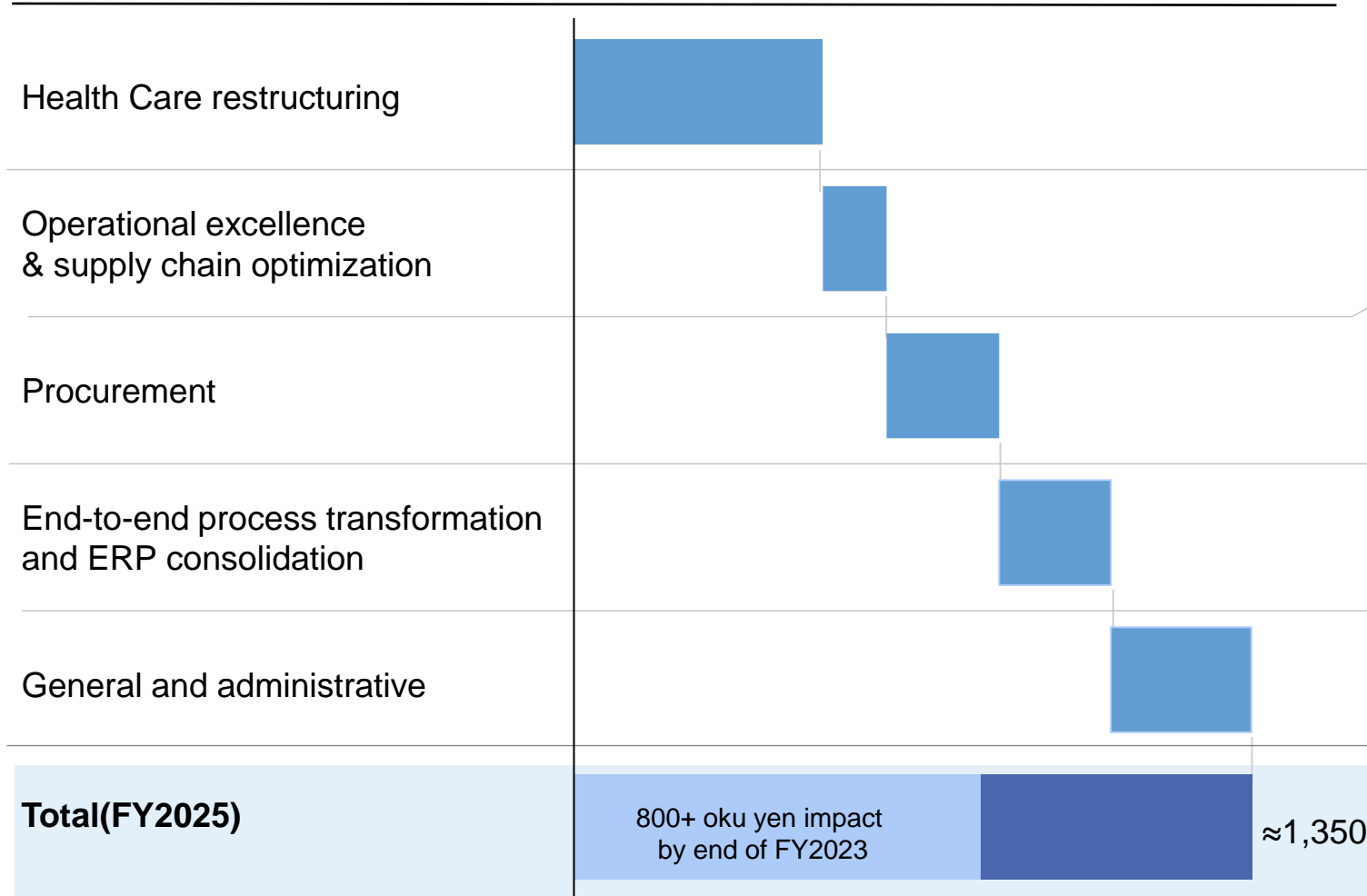
Day after tomorrow

Novel solid electrolytes for higher energy density



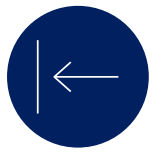
Cost transformation will exceed original target and achieve a majority by FY2023

Value creation target FY2025, oku yen



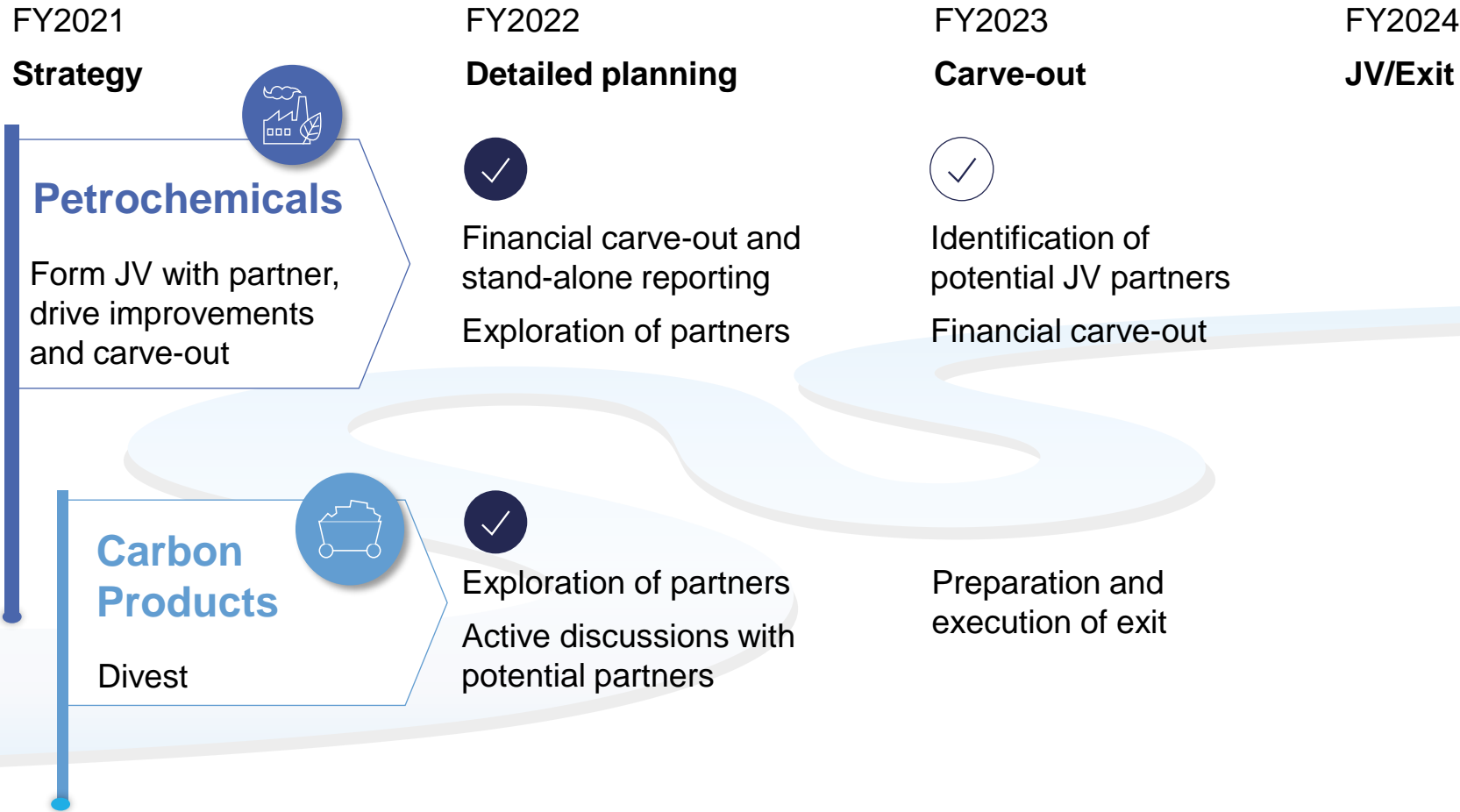
Key FY2023 actions delivering combined FY2022 and FY2023 savings of 800+ oku yen

- Closure of Medicago and other selected site restructuring
- Rightsized R&D efforts
- Closure of high-cost manufacturing plants
- Procurement: consolidation of indirect supplier base incl. travel mgmt., lease cars, analytics/IT tools, global insurance program, marketing and sales agencies
- End-to-end process: indirect labor optimization
- General and North America organization restructuring
- Office consolidation: downsizing and relocation of offices



We are committed and making progress to exit the businesses that do not match our growth and sustainability expectations

Exit timeline for our petrochemicals and carbon products businesses



JV value enhancing benefits

Quick & focused decision making

Synergies to improve cost structure and margin expansion

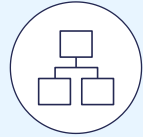
Business portfolio and asset evaluation & optimization

Growth based on new technology both for GX and circular economy

Increased value & healthy position to monetize exit



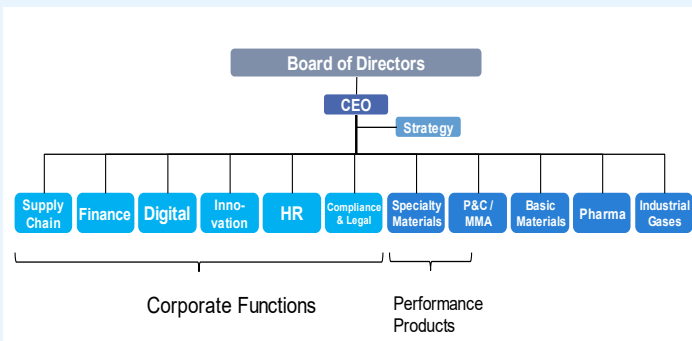
MCG has set itself a LEANER organizational structure



New management and governance

- Shift from holding company to corporate structure
- Faster decision making
- New management team

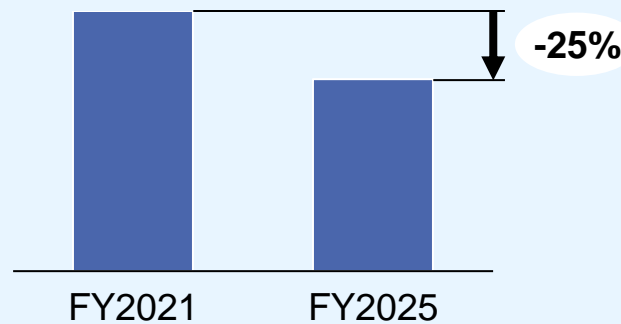
Final organizational structure¹



Entities and location optimization

- Downsizing and optimization of offices globally
- Closing and consolidation of locations

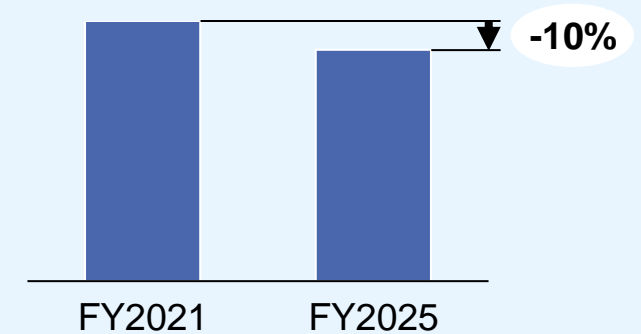
Number of legal entities²



Simplifying the organization

- Natural attrition and programs
- Redeployment and reskilling of existing employees

Headcount



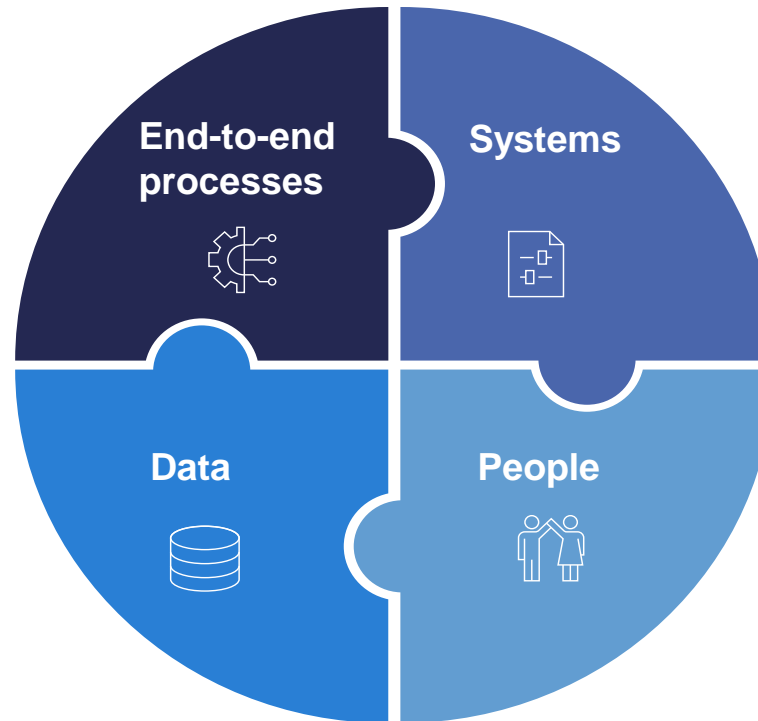
1. Audit and Audit committee not shown
 2. Excludes any changes in Nippon Sanso Holdings entities



MCG will become more DIGITAL including technology, data, and digital business models

Complexity of processes currently significantly exceeds industry benchmark

- Automated End-to-end global processes: 90% standardized, 10% differentiated for competitive advantage
- Centralized data governance & data quality standards
- Agile data availability for fast, fact-based decision making



- Future-ready architecture leveraging industry standards
- Consolidation of ERP systems as a backbone for all operations
- Trained and accredited employees
- Global knowledge sharing

Key items currently in process

Global ERP consolidation & renewal, Global HR System implementation, Procurement, CRM



We will EMPOWER our employees for this journey

Our cultural transformation

Empowered workforce



- Develop next generation of leaders
- Nurture talent for transformation
- Visualize one global organization
- Encourage personal development
- Accelerate diversity in leadership
- Promote cultural change and value creation mindset

Health and safety



- Maintain appropriate operations and safe facilities
- Monitor and prevent human rights violations and high-risk situations

Our targets¹

Empowered workforce² **65% → 80%**

Diversity among management³ **33% → 40%**

Lost-time injury frequency rate **1.18 → 0.71**

Wellness awareness⁴ **75% → 85%**

1. FY2020 to FY2025 targets

2. Employee engagement, Percentage of favorable responses to set items in the employee awareness survey.

3. Percentage of managerial staff with a diversity attribute.

4. Percentage of favorable responses to set items in the employee awareness survey.

Business growth plans



The committed individuals leading the businesses as of April 1, 2023



Frank Randall Queen

Executive Vice President,
Head of Specialty Materials¹



Manabu Chikumoto

Executive Vice President,
Head of Basic Materials²



Hitoshi Sasaki

Executive Vice President,
Head of Polymers & Compounds / MMA



Toshihiko Hamada

President, Chief Executive Officer
Nippon Sanso Holdings



Akihiro Tsujimura

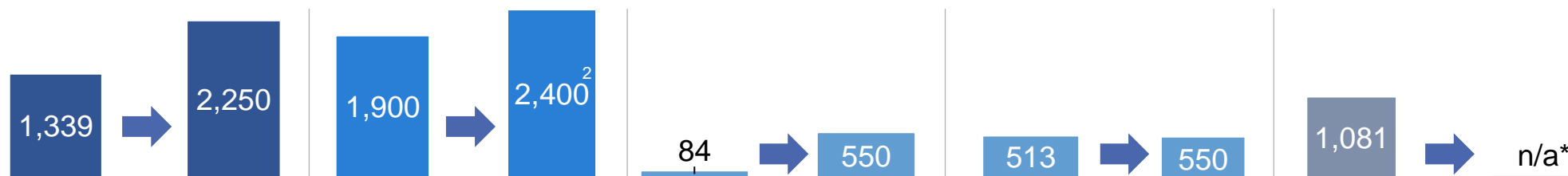
Executive Vice President,
Head of Pharma

1. Rename "Advanced Solutions" to "Specialty Materials" from April 1, 2023
2. Rename "Petrochemical & Coal business" to "Basic Materials" from April 1, 2023

Our transformation is governed by a shift towards specialty materials

FY2021 → FY2025

Business unit¹

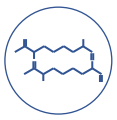
EBITDA, oku yen

EBITDA margin

COI margin

ROIC


*Either divested or not a fully consolidated entity in FY2025. Profit from JV share in FY2025 is ≈100 oku yen⁴

1. Additional EBITDA from other business units: 107 oku yen in FY2021, ≈250 oku yen in FY2025
 2. Midpoint of range as disclosed in Medium-Term Management Plan of Nippon Sanso Holdings rounded up
 3. Includes effect of partially complete large investment in US facility, ROIC excl. the investment is 9%
 4. Assuming JV COI ≈400 and net income of ≈200 oku yen, 50% ownership



Performance Products business – MCG’s engine for profitable growth

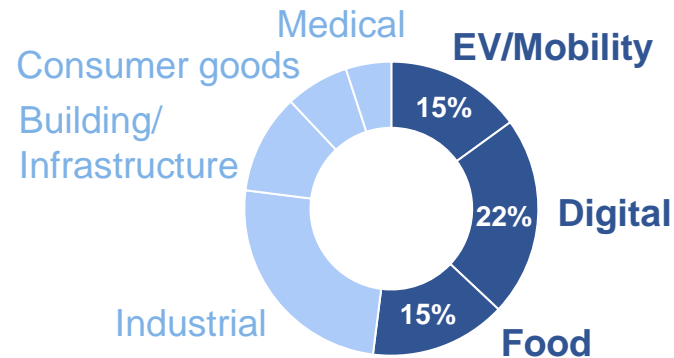
Strong positioning...

20% Global market share of optical polyester film

#1 Supplier of semiconductor cleaning services in Asia and Europe

... in growing markets...

EBITDA share by end market, FY2021



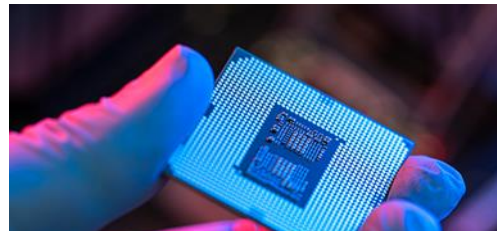
Strategic focus

- **Move from product-focused to market-oriented organization** confirmed by EV/Mobility pilot in US
- **Grow existing products globally** based on outside-in mapping done by market segment
- **Build sustainable leadership positions** based on existing renewable technologies

... due to capabilities serving key trends



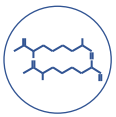
Contributing to the mobility transition: battery materials



Fueling a digital world: semiconductor materials

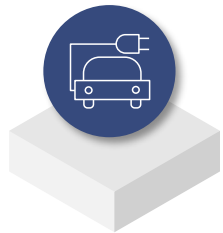


Enabling food preservation: additives and packaging



Performance Products – becoming more market oriented

Key end markets and MCG's products



EV/Mobility

Market growth¹: >14% p.a.

Projected sales growth²: 13% p.a.

- Electrolytes
- Fiber reinforced plastics & composites

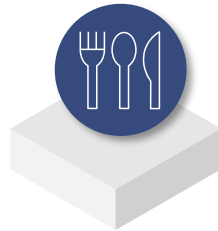


Digital

Market growth¹: >10% p.a.

Projected sales growth²: 7-11% p.a.

- Semicon cleaning
- Epoxy resins
- Semicon equipment components



Food

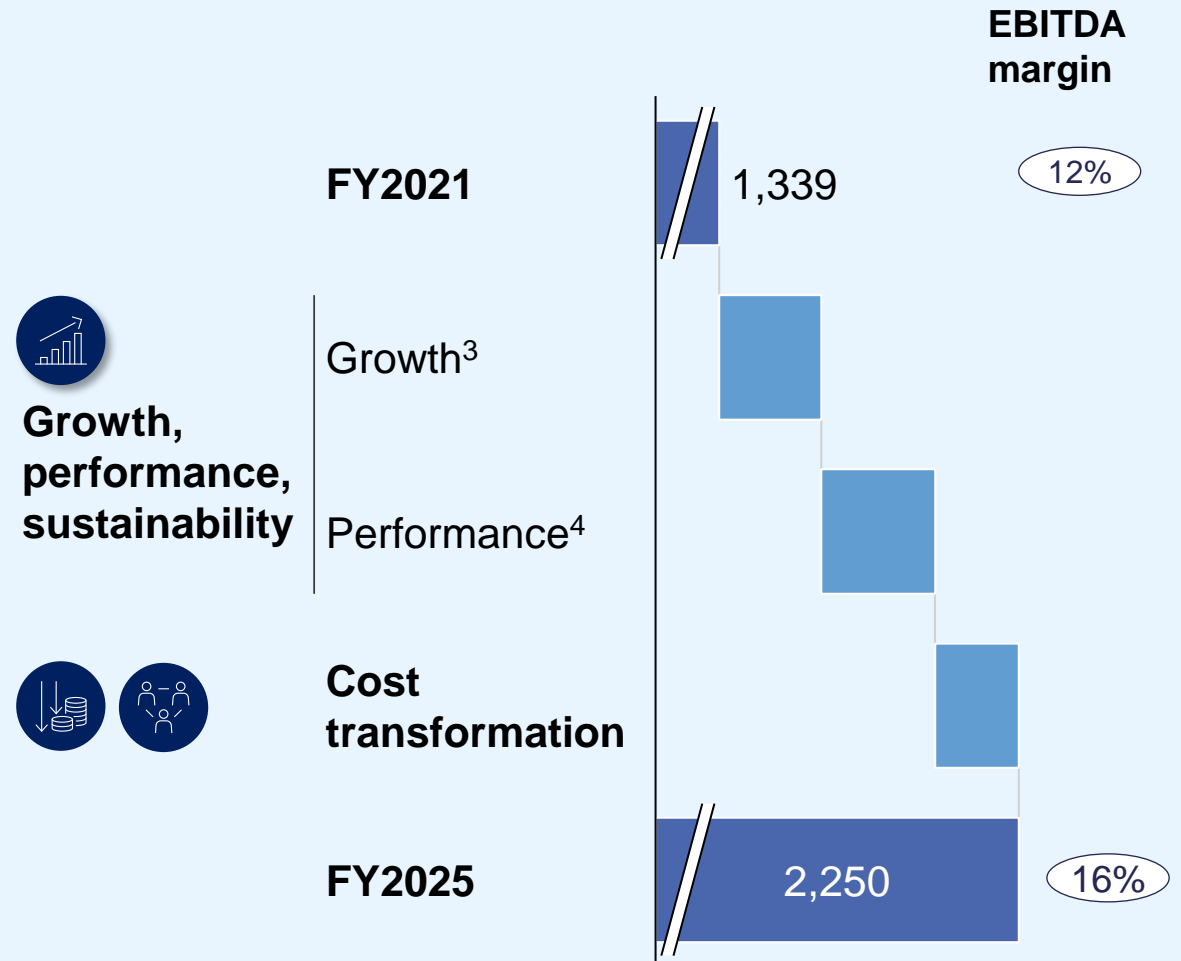
Market growth¹: >7% p.a.

Projected sales growth²: 7% p.a.

- Emulsifiers
- Packaging films and materials

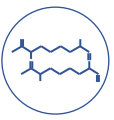
Products above account for majority of sales growth

EBITDA development, oku yen



1. Addressable market growth rate in EV, battery and mobility
 2. Sales growth rates until FY2025 for selected target applications

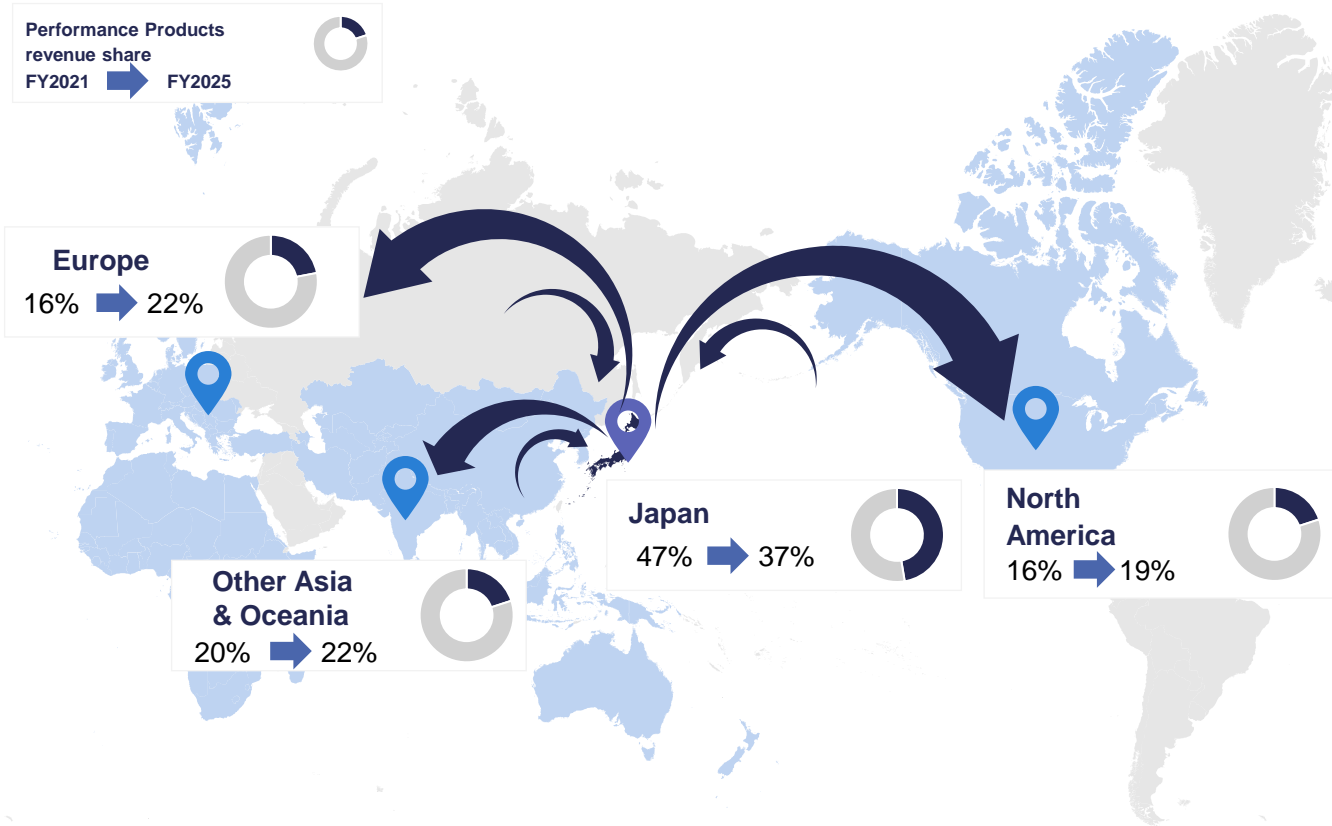
3. Includes acquisitions / divestitures
 4. Includes product mix shift, margin management



Performance Products

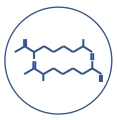
– making entire portfolio available globally

We will grow our products globally ...



... through the steps we have taken to improve our commercial capabilities

-  Regional sales force focused on serving end-markets with all global products
-  Customized solutions developed based on respective market needs
-  Key account management piloted – “one face to the customer”
-  Customer satisfaction measurement and feedback loop piloted, global roll-out in prep
-  Enhanced lead and opportunity management process
-  Captured quick win cross-sell and up-sell opportunities
-  Moved pilot business from cost-up to value-based pricing
-  Aligned innovation approach with businesses requirements & timeline



Performance Products

– further expanding our sustainability position

Sustainable brands (selective)

Brand	Chemistry	Type		
		Biobased-route	Bio degradable	Recyclable
BioPBS™	Polybutylene succinate			
DURABIO™	Isosorbide-based polycarbonate			
SoarnoL™	EVOH ¹			
Nichigo G-Polymer™	BVOH ¹			
GOHSENOL™	PVOH ¹			

DURABIO™ – a truly innovative bio-based engineering plastic



8,000 t/y
production
capacity

- **Bio-based engineering plastic that combines the advantageous properties of polycarbonate and those of PMMA**
- **Designed for applications requiring exceptional durable transparency and visual appearance**

Exemplary case: DURABIO™ for green mobility interior

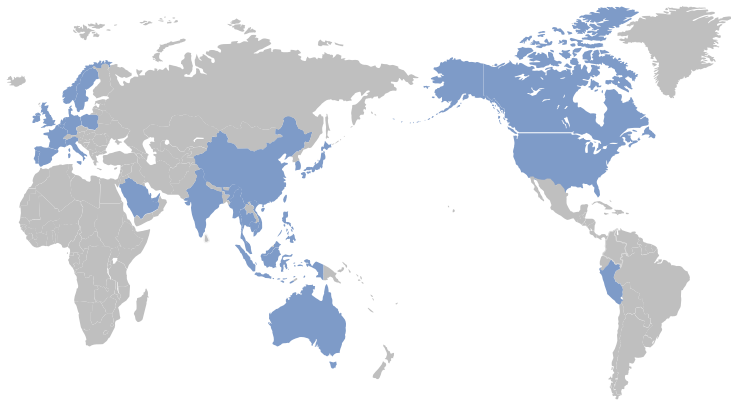
DURABIO™ used for the rear heater control panel of new model fuel cell electric vehicle "MIRAI," sold by Toyota Motor Corporation



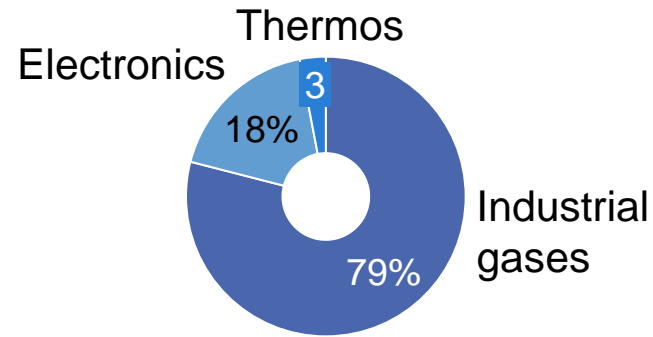


Industrial Gases business – strong profit contributor

Nippon Sanso Holdings is the #4 global gas player...



Focus regions



Revenue by business, FY2021

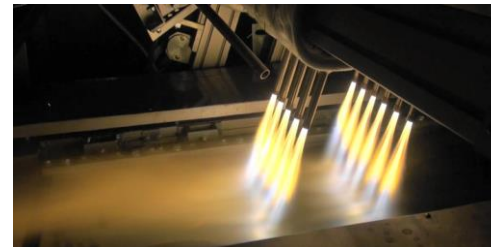
... with applications for high-growth market



ASUs for nitrogen in the semiconductor industry



HyCO plants for hydrogen



Combustion burner that contributes to reducing CO2 emissions



Strategic focus

- **Grow 4 global regions** (Japan, US, Europe, Asia and Oceania)
- **Reinforce and develop** the Group's comprehensive capabilities
- Actively explore opportunities to gain more **synergies between MCG and Nippon Sanso HD**



Health Care business –spearheaded by pharma business

We are specialized in Health Care solutions and supported by key trends ...



Ageing population



Need for new treatments



Increasing regulatory requirements

... with capabilities in key techniques and applications



AI-powered drug discovery



Precision medicine and around the pill solutions



Real-world data enabling deeper understanding of ALS




















Strategic focus

- **Advance precision medicine** through the upgraded R&D processes
- Focus innovation development on rare diseases and **continue to invest in a new pipeline**
- **Leverage partnerships** for development and sales

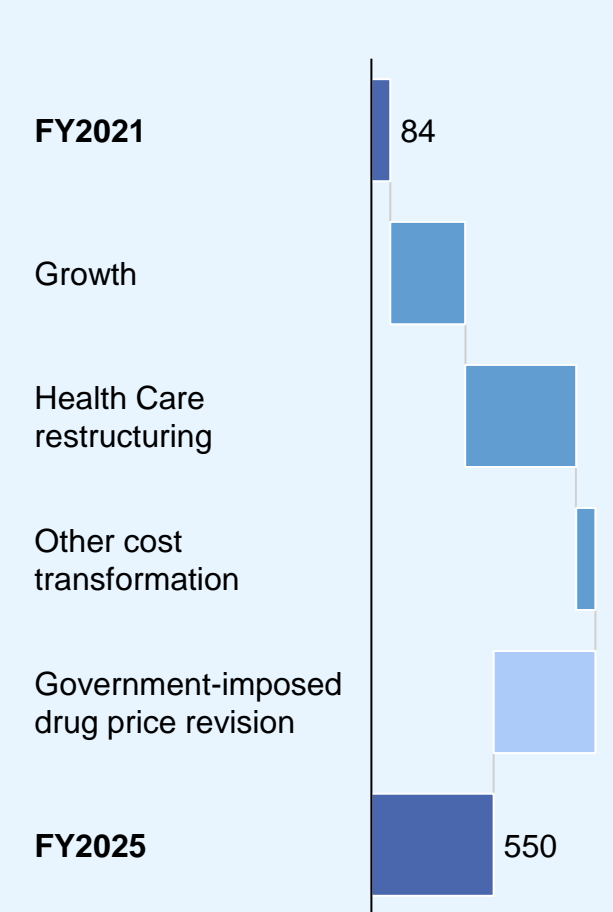


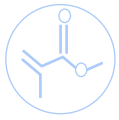
Health Care – focusing on three core areas and restructuring the business

Focus on precision medicine and addressing patients with unmet needs

	 Central nervous system	 Immuno-inflammation	 Diabetes and kidney	 Oncology
Focus  Development  Sales				
Targeted indications	ALS Tardive Dyskinesia	Inflammatory bowel disease Erythropoietic protoporphyria	Type 2 diabetes Chronic Kidney Disease associated with Type 2 Diabetes Mellitus	Oncology for rare diseases
Key markets	 	 		 
MCG's key growth products	Radicava Dysval	Stelara MT-7117	Mounjaro Canaglu	MT-2111

EBITDA development, oku yen





MMA business

– cost-advantaged technology leader

Strong technical capabilities in MMA ...

#1 cost-advantaged
technology leader

#1 player by capacity

#1 share in merchant market



... and growing market based on key end applications



*“Queen of plastics” used in,
e.g., cars, building materials*



Application in displays



Usage in coatings



Strategic focus

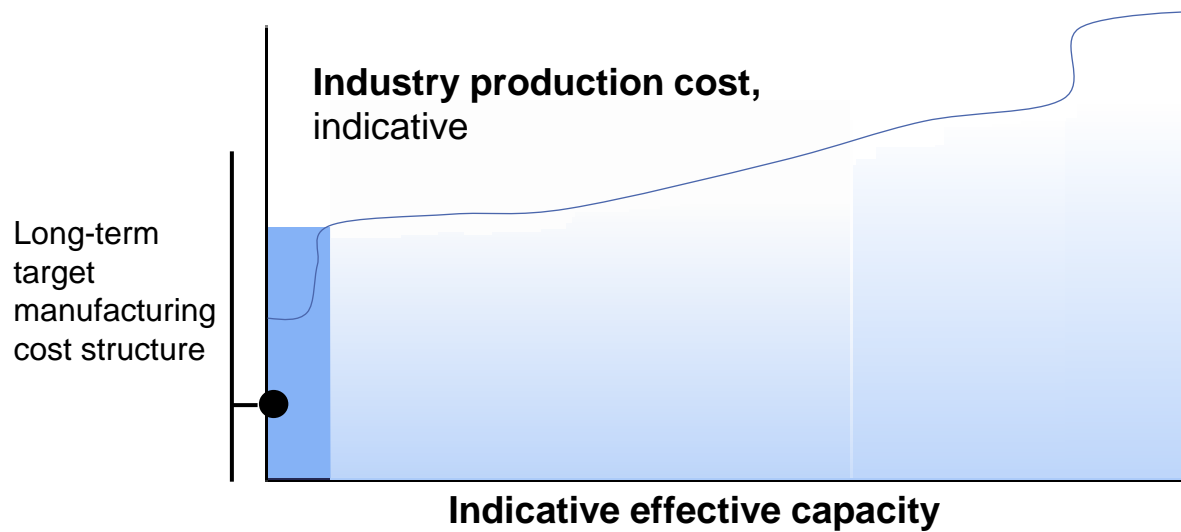
- **Increase productivity**, improve raw material access, and leverage best technology through new footprint
- **Benefit from lower demand volatility** in the US
- **Strengthen sustainability focus** based on existing PMMA recycling and bio-MMA



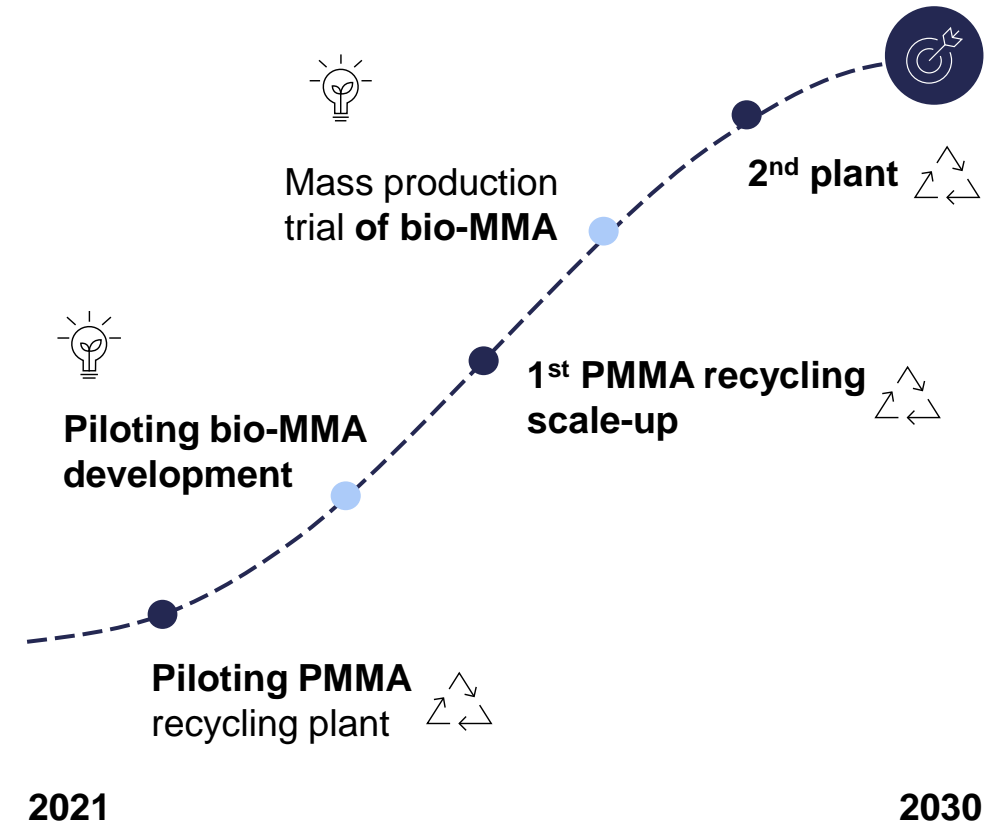
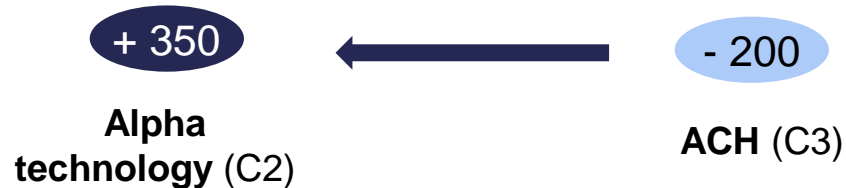
MMA – capacity shift towards lower-cost alpha technology and expanding the sustainable MMA portfolio

MCG is the #1 player in MMA leveraging the alpha technology and global footprint ...

... and will further strengthen its sustainability offering

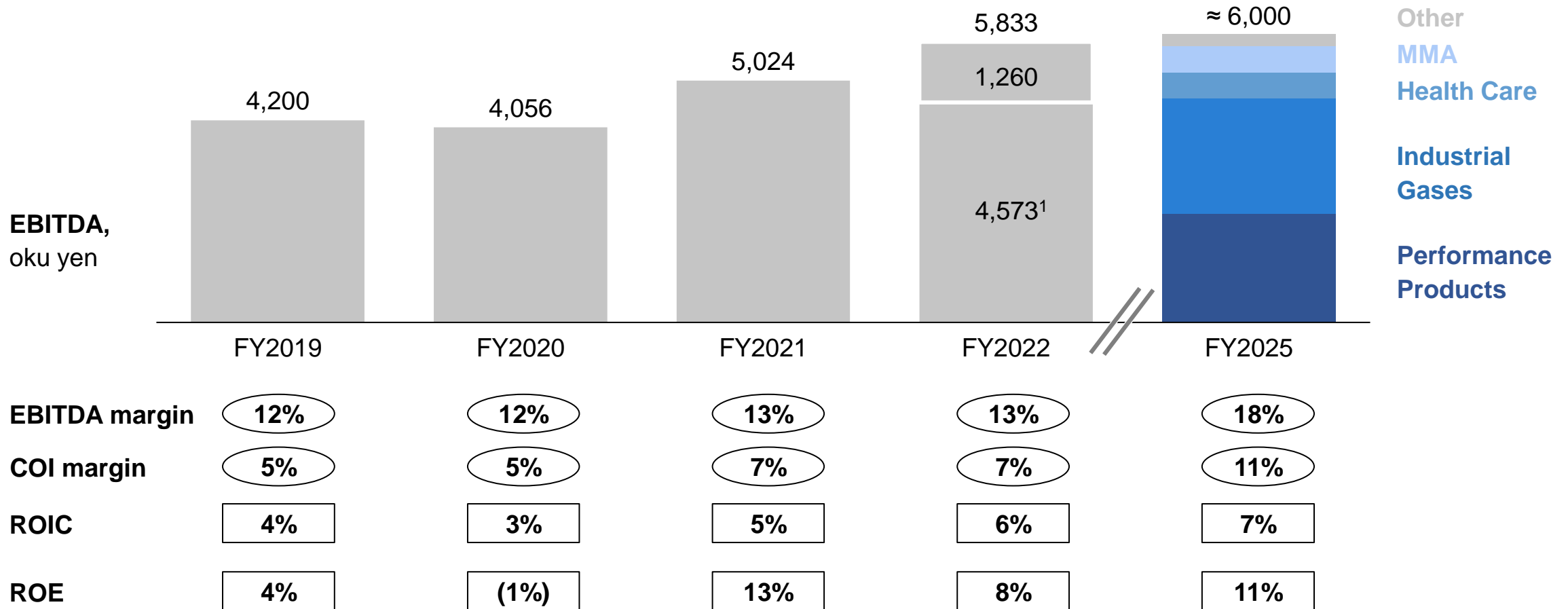


Shifts in MCG capacity, kt/y



Performances of the businesses will deliver a strong financial position in FY2025

Evolution of key financials





The generated capital will fund organic growth, increase shareholder return, and provide a healthier balance sheet

For periods FY2023-FY2025

Generated capital
≈ 21,450¹

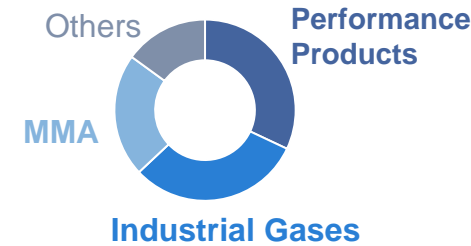
Capital allocation, oku yen

48%	Total CAPEX ≈ 10,400
18%	R&D ≈ 3,800
13%	Debt repayment ≈ 2,700
9%	Dividend ≈ 2,050
12%	Increase in uncommitted capital ≈ 2,500

Policy

- Invest for growth including capacity increases for SoarnoL™, epoxy, electrolytes, and emulsifiers
- Focus on return on investment
- R&D aligned to business incentives
- Targeting R&D spend of ≈3.5% of sales
- Net debt to EBITDA: <3.0x
- Net debt to equity: <1.0x
- Y-o-y dividend growth
- Payout ratio 35% in FY2025
- M&A to accelerate growth
- Other value-creating opportunities including share buybacks

CAPEX by business



Significant capital and leverage available for inorganic growth, share buyback, and other opportunities to deliver value







1. Generated capital is calculated as operating cash flow before R&D plus proceeds from divestments

Our vision for the future



“A leading specialty materials group that delivers innovative solutions globally, bringing superior value to our customers, shareholders, and society”

Forging the future will be a transformative journey and pave the way to win beyond 2025

Phase 1: Planned	Phase 2: Executed	Phase 3: Accelerate	Phase 4
5 initiatives	FY2021-FY2022	FY2023-FY2025	Beyond FY2025
 Growth, performance, sustainability	Pathway to more focused portfolio defined	Focused markets, global expansion and commercialization excellence	<p>Positioned to capture transformational impact</p> 
 Strategic cost transformation	Cost reduction for FY2022 on track, further actions taken	Procurement, Operational excellence, G&A improvement	
 Business to exit	A few divestitures, financial carve-out of Petrochemicals	Carbon Products sale, Petrochemicals JV established	
 Leaner, digital, empowered	Reduced complexity in structure, cultural transformation underway	Global, digital End-to-end processes, fewer locations, diverse & inclusive workspace	
 Strategic capital allocation	Improved net debt/equity	Capital allocation supporting growth, dividends and a healthier balance sheet	

Major highlights from today's presentation

- We have achieved solid progress with our Forging the future strategy
- We have an executable plan to continue our transformation journey
- We will deliver 700 oku yen EBITDA growth through innovation focused on market needs
- We will deliver 1,350 oku yen cost improvements, a majority by FY2023
- We will exit petrochemicals and carbon products, and we are making progress
- We will become more digital, leaner and empowered organization
- We will invest for the future and improve the balance sheet and returns to shareholders
- AND we will pursue KAITEKI, the well-being of people and the planet

Q&A

We are happy to answer your questions



Jean-Marc Gilson

President,
Chief Executive Officer



Yuko Nakahira

Executive Vice President,
Chief Financial Officer

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