### Presentation for

# Analyst Meeting

May 31, 2006

Ryuichi Tomizawa
President & CEO
Mitsubishi Chemical Holdings Corporation

# **Agenda**

Financial Results for FY2005 Ended March 2006

**KAKUSHIN Plan: Phase 2** 

Concept

**Progress** 

# **Agenda**

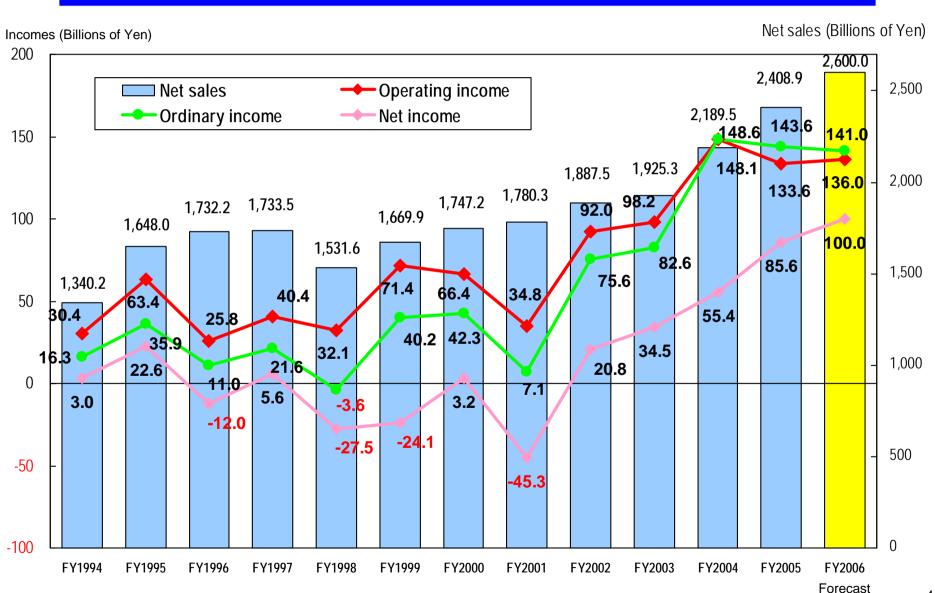
### Financial Results for FY2005 Ended March 2006

**KAKUSHIN Plan: Phase 2** 

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**Progress** 

### **Historical Summary**



### **Policies and Measures Taken in FY2005**

- 1. Established Mitsubishi Chemical Holdings Corporation
- 2. Continued business portfolio restructuring and executed capital investment
- 3. Strengthened technology platforms and invested in focused R&D areas

Further strengthened projects in the focused R&D areas. (Solid state lighting display, Polymer for automobiles, Display materials, Sustainable resources, Drug discovery support)

Launched studies on new business innovation at a long-term perspective.

Combined laboratories (21 to 7 laboratories) and reinforced human resource development.

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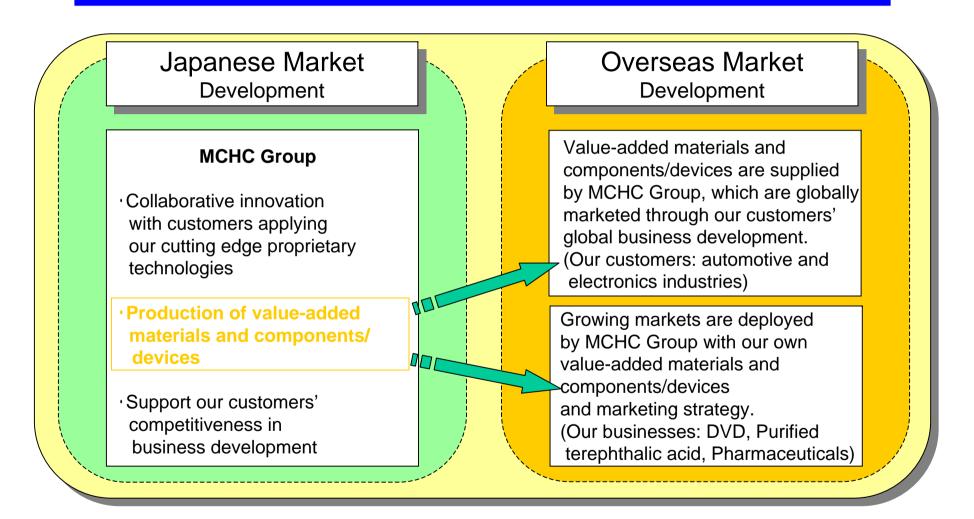
### KAKUSHIN Plan: Phase 2 Concept

Mitsubishi Chemical Holdings Group
will promote sustainable growth through
Waves of Change ('KAKUSHIN')

#### Restructure business portfolios

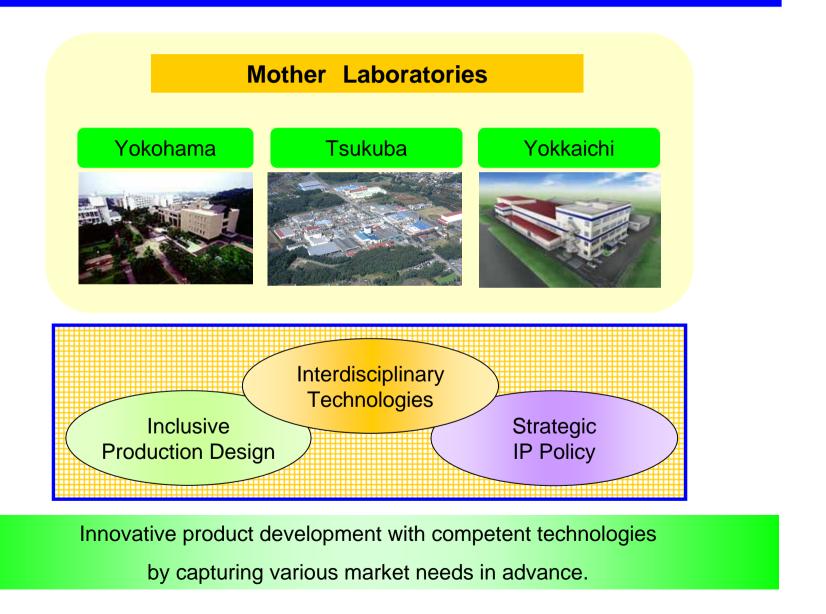
Enlarge presence in a global market
by reinforcing competitive edge in 'technology' and 'business'
as the source of growth

### **Basic Strategy for Global Business Development**



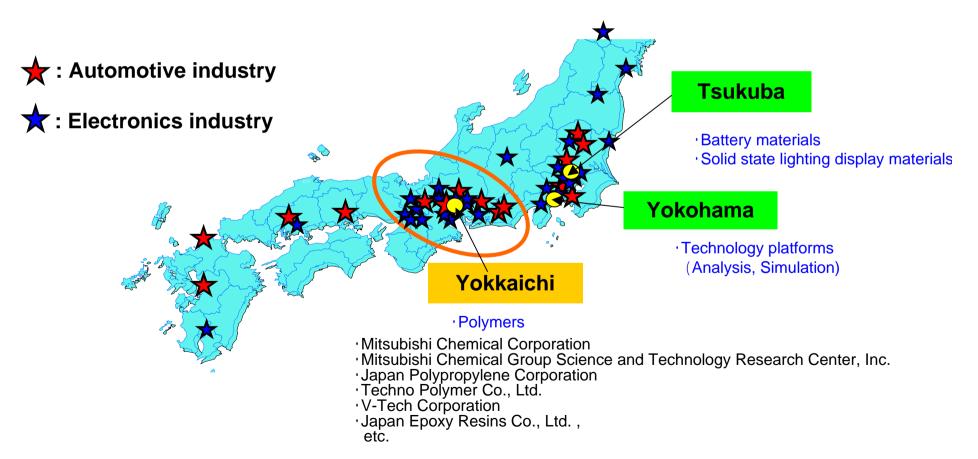
Mother Laboratory: Innovative product development with competent technologies by capturing various market needs in advance. Mother Plant: Pilot plant or production facility which produce and demonstrate competitive production technologies.

### **Strengthen Mother Laboratories**



## **Establish Customer Laboratory**

Collaborative innovation with customers in their local areas.

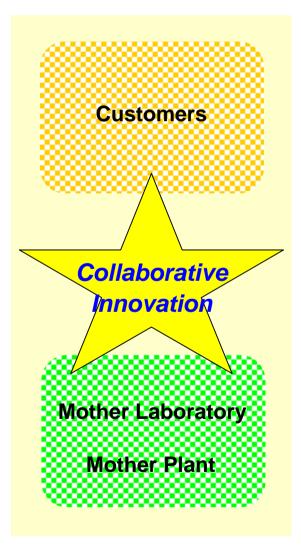


### **Mother Plants**

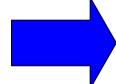
# Respond swiftly to production of next generation products Develop advanced technologies outclassed others with customers

Businesses	Mother Plants	Technologies
Optical Recording Media	Singapore* Mizushima *Functioin as a part of mother labs. (Tsukuba)	·Establish mass production technology for the world's first new media. ·Produce stampers.
Organic Photo Conductors	Odawara	·Establish cutting edge technologies in multicolor and high-resolution technologies. ·Respond to advanced performance requirements.
Li-ion Battery Materials	Yokkaichi Sakaide	· Assemble advanced technologies outclassed others.
Polypropylene	Kashia Goi Mizushima	·Establish advanced production technology for well designed polymer.  (Polymer design, Compounding technology)
Polycarbonate	Kurosaki	· Proprietary production process technology for DPC and melt polymerized PCR.

### **Support Customers' Global Market Development**



- ·Li-ion battery materials
- · Aluminum fiber
- ·PP compounds etc.



- · Color resists
- $\cdot$  Phosphors
- · Polyester films
- ·Carbon fibers
- · Organic Photo Conductors
- ·Toners

### **Global Development**

Make our customers become front-runners.

Our businesses: Automotive and electronics industries

### **PP Compounds**

Mother Laboratory (Yokkaichi)

Customer Laboratory (Yokkaichi)

Advanced polymer design technology Compounding technology

**Mother Plants** 

Neat PP Compounding

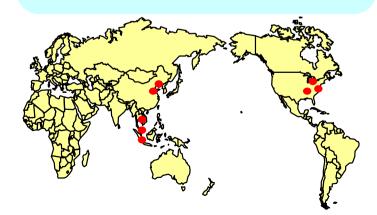
Advanced technologies outclassed others

Domestic Business Development



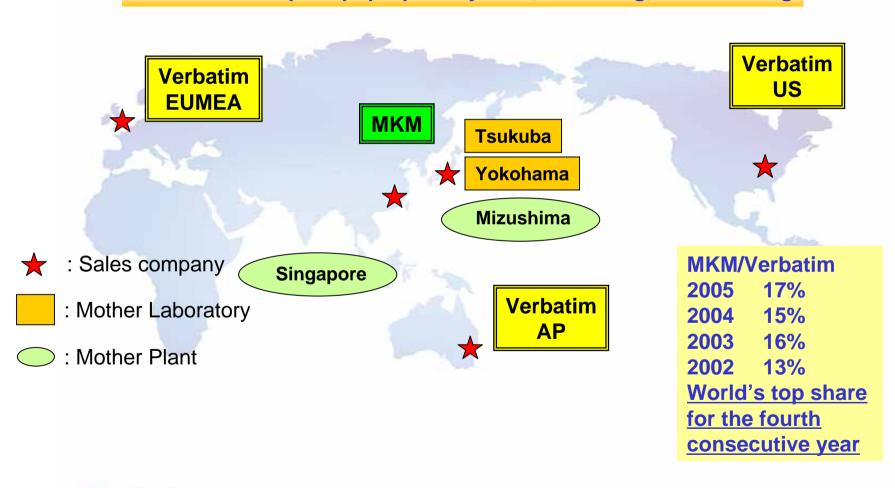
# Global Business Development

(Mytex Polymers General Partnership) (Mytex Polymers Asia Pacific Private Limited)



# Global Market Development with Proprietary Technologies (1)

DVD: The most prompt proprietary R&D, marketing, and branding



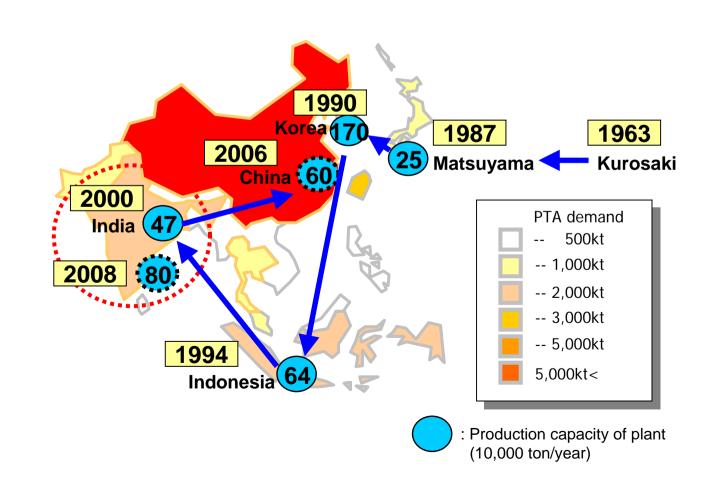
Verbatim.

♣ MITSUBISHI KAGAKU MEDIA CO., LTD.

# Global Market Development with Proprietary Technologies (2)

Purified terephthalic acid: Business expansion in the growing Asian market.

World's first technology, customer exploration, and overseas business operation



# **Agenda**

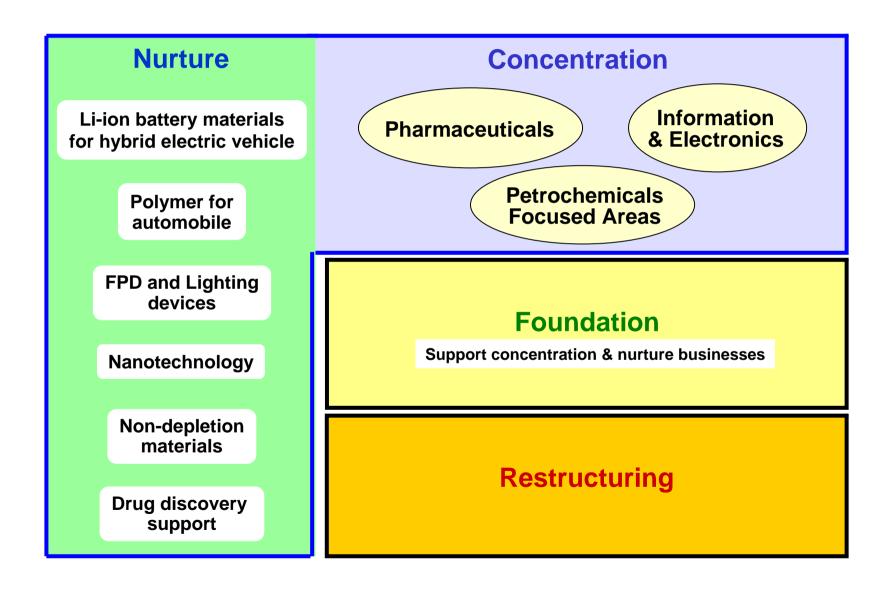
Financial Results for FY2005 Ended March 2006

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### **KAKUSHIN Plan: Phase 2 Business Portfolio**



# **Portfolio Restructuring in Progress**

(Launch/Decision in FY2005)

		Major items					
		Petrochemicals		Performance and Functional Products			
Expansion of Capacity	Japanese Market	Polycarbonate (Kurosaki)		omer ratory Display components for LCDs Chemical toner Almina fiber for automobiles			
or Increasing of Efficiency	Global Market	Purified terephthalic acid (India) Polycarbonate, BPA (China) [ at the stage of feasibility study]		HD DVD (Singapore) OPC (USA, Singapore) Performance polymer for air bag covers (USA) (April 2006)			
Acquisition		PP compounds (USA and Singapore) ·Mytex Polymers General Partnership ·Mytex Polymers Asia Pacific Private Limited Wholly owned subsidiaries of MCC		·Japan Epoxy Resins Co., Ltd. Wholly owned subsidiary of MCC			
Transfer		· Dia-Nitrix Co., Ltd.  Minor affiliate of MCC					
Withdrawal		Linear alkylbenzene Styrene monomer · Yuka Seraya Private Limited Melamine					

# Capital Investment and Investment and Loan in Progress

(Launch/Decision in FY2005)

				(Edditin Decision in 1 12000)			
		Three-year Plan (Billions of yen)	Progress (%)	Major Items			
Petrochemicals		150	73	Increase of production capacity  · Purified terephthalic acid (India)  · Polycarbonate (Kurosaki)  · Polypropylene (Kashima)  · Ethylene (Mizushima)  Acquisition  · PP compounds (Mytex Polymers General Partnership  Mytex Polymers Asia Pacific Private Limited)			
Performance and Functional Products	Performance Products	125	34	[Information and electronics] New production Next generation optical discs (Singapore, Mizushima) Increase of production capacity OPC (USA, Singapore), Chemical toner Materials and components for LCDs			
	Functional Products	125		Polyester films, Color resists, phosphors Acquisition Japan Epoxy Resins Co., Ltd. Wholly owned subsidiary of MCC [Automobiles] New production Aluimina fiber (MAFTEC) (Sakaide)			
Health Care		40	20	Renewal ·Apparatuses for pharmaceuticals, diagnostics and testing, etc.			
Services/Corporate		45	30	New construction ·Customer Laboratory (Yokkaichi) * *Support concentrated businesses			
Total		360	50				



# Petrochemicals Segment Business Perspective and Strategy

May 31, 2006

Tokio Niikuni

Managing Executive Officer

Mitsubishi Chemical Corporation



### **Agenda**

- Segment Policy
- Segment Strategy
- Business Strategies
  - Polymers
  - Monomers
  - Olefins and Aromatics
- Summary



### **Segment Policy**

To maximize the profit,

the Petrochemicals Segment will "expand the core businesses globally" and

"reinforce the business infrastructure in Japan",

taking advantage of its human capital and technology.



### **Expand the Core Businesses Globally**

Leveraging our strengths focusing on the Asian market.

Core Businesses	Investment Opportunities				
Purified terephthalic acid	Boost the capacity in Asia				
Polypropylene & Performance polymers	<ul> <li>Expand the domestic and overseas capacity</li> <li>Establish the supply network of PP compounds across Japan, Asia, US &amp; Europe</li> <li>Develop the supply network of thermoplastic elastomers worldwide</li> </ul>				
PC/Phenol chain	Increase the domestic and overseas capacity				
1,4-BG & PTMG	Construct new production facility in Asia				



### Reinforce Business Infrastructure in Japan

Strengthen Kashima and Mizushima as the leading petrochemical complexes in Asia.

### Goals

Increased capacity for valuable fractions

(propylene, benzene, paraxylene)

Diversified sources of feedstocks

Maximized value of the overall complex

### **Methods**

Accelerate cooperation across the complex

(e.g. Kashima Hydrocarbon Project)

Optimize the total production system

Develop novel production technologies for olefins&aromatics



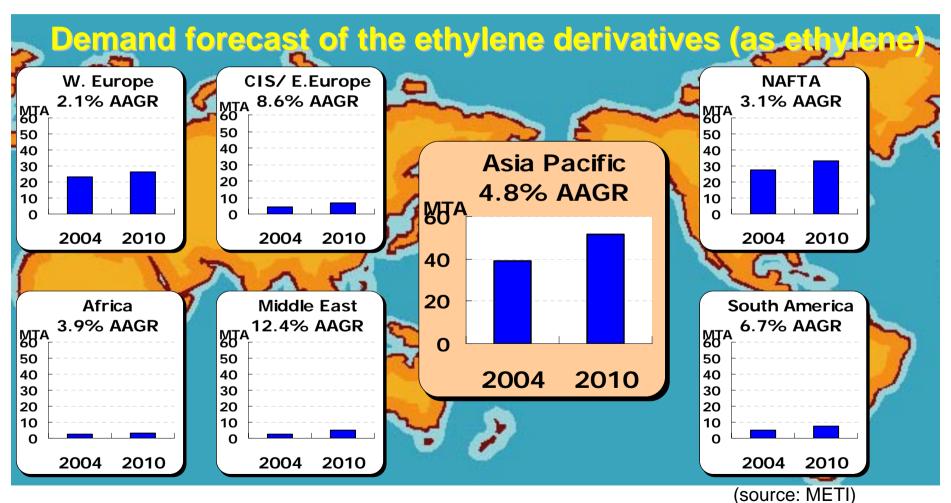
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### **Pursue the Growth Opportunities in Asia**

"Mega and high-growth" market

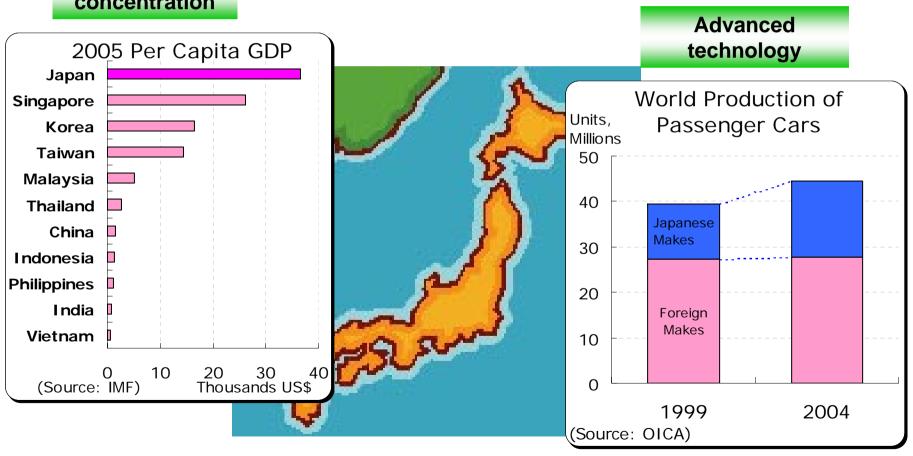




### Focus on the Cutting-edge Applications in Japan

Our customers in Japan are the global front-runners





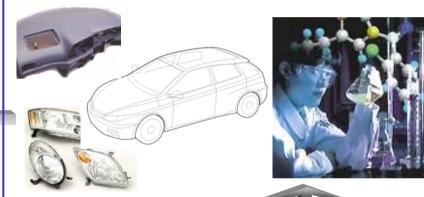


### **Our Competences Are:**

Our customers who lead the global market with their cutting-edge technologies



Competent technologies and strategic marketing to answer our customers' evolving needs



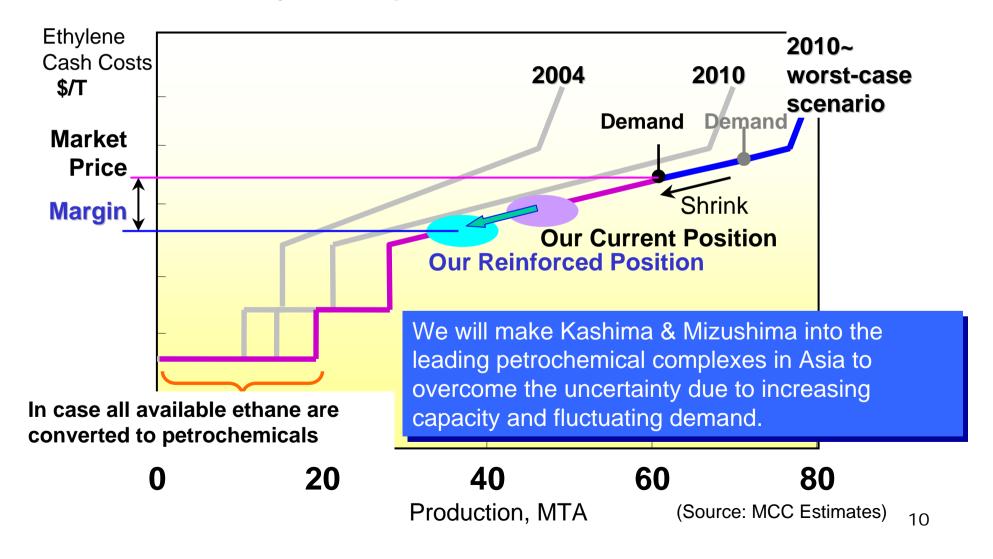
Two chemical complexes as core business assets





### **Against the Big-wave from the Middle East**

### Ethylene competitiveness in Asia/Middle East





### **Leverage Our Strengths to Grow with Customers**

 Enhance the cost competitiveness to ensure the profitability

 Meet the customers' expectations through innovation across the wide range of products

 Develop the businesses globally applying business know-how and technology established in Japan









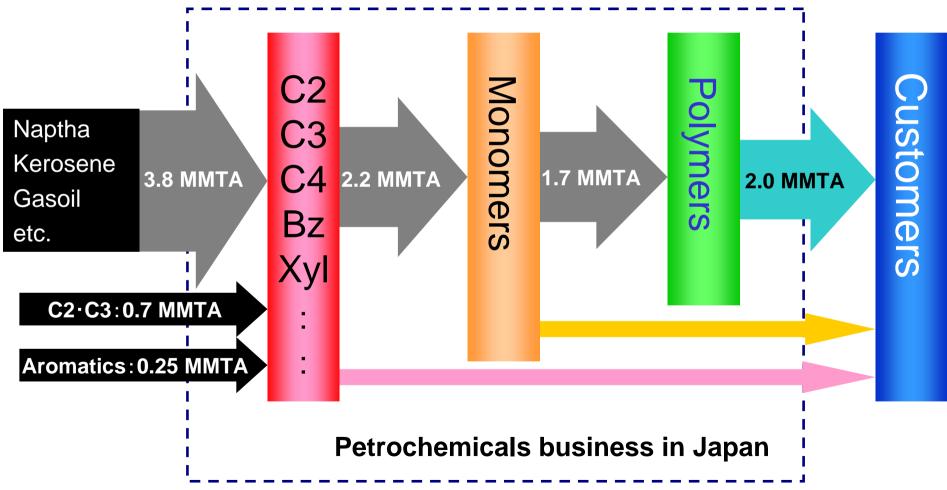
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### **Polymers: Business Position**

Generate 60% of domestic revenues





### **Polymers: Competitiveness**

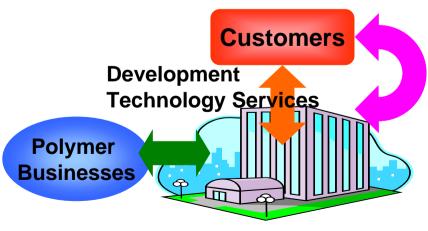
Satisfy customers' cutting-edge needs by:

- Unique ideas and technologies
- Faster innovation than others



Lead the global competition by enhanced capabilities in technology and marketing

### **Customer Laboratory (Yokkaichi)**



Joint-development through the "Integration" or "SURIAWASE" between MCC technology and customers' products by exchanging ideas and sharing information:

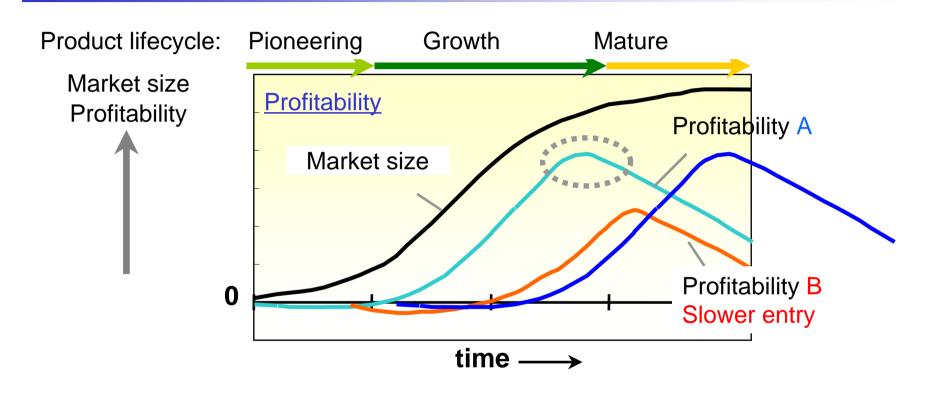
Material Design Technology

Manufacturing and Processing Technology

Performance Evaluation



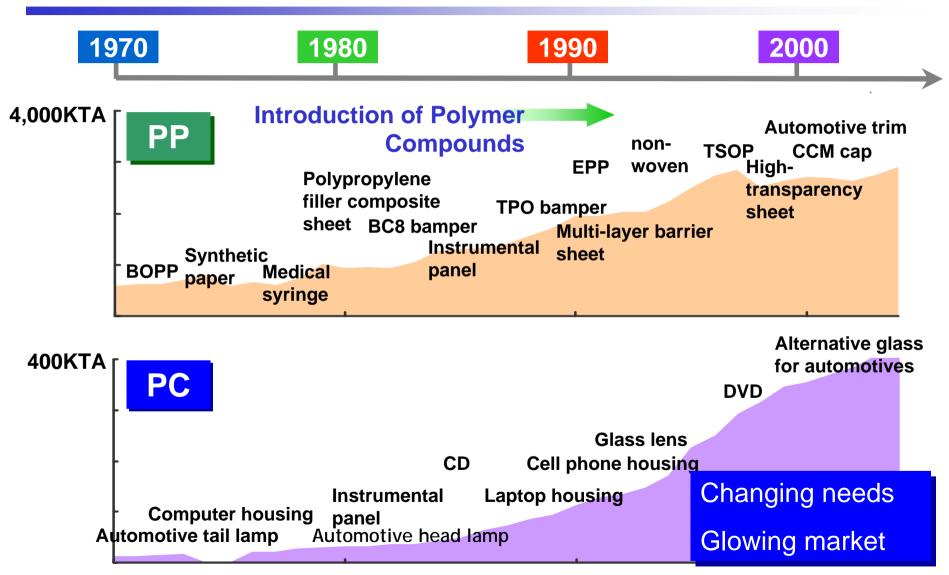
### **Polymers: Why Capturing the Cutting-edge Needs?**



- Polymer product has a peak in profitability.
  - → Must deliver the next generation products timely.
- Slower entry can not secure the profit peak.
  - ⇒ Must become the pioneer in the lucrative markets.

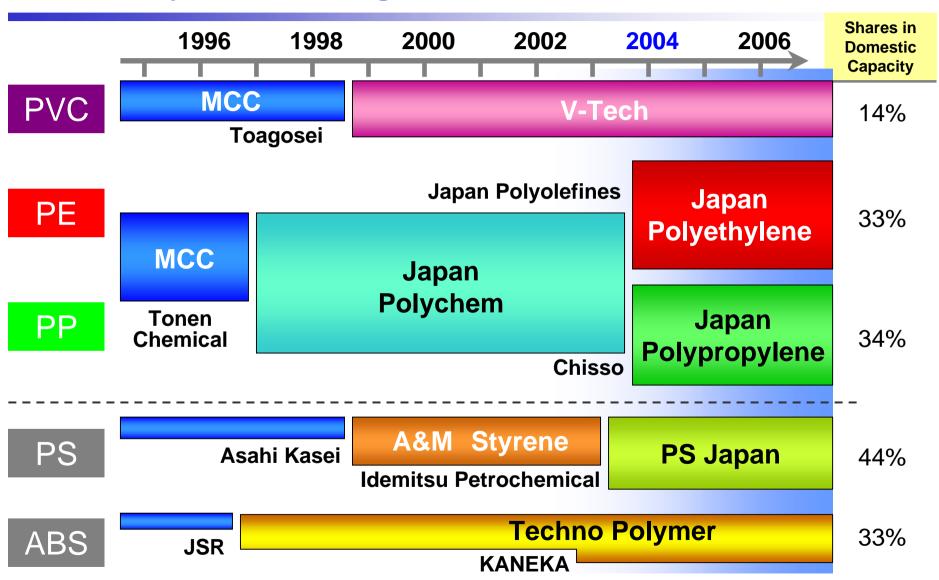


### **Polymers: Cutting-edge Needs and Production Capacity**





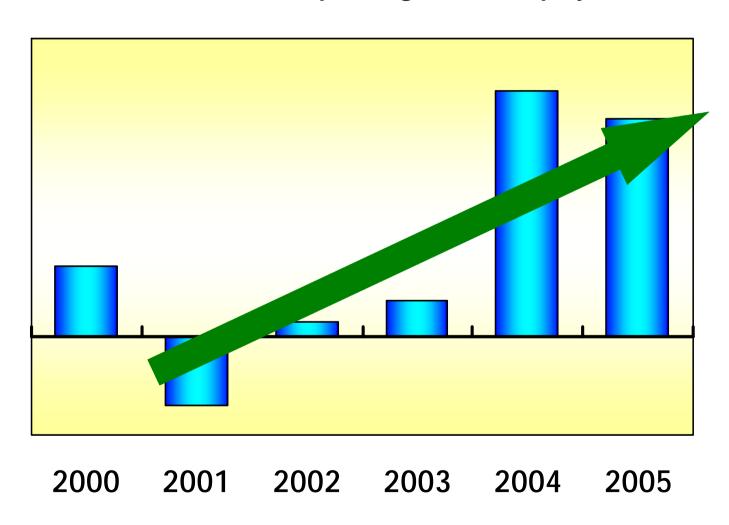
### **Polymers: Strategic Business Consolidation**





## **Polymers: Results of Business Consolidation**

Upward trend of consolidated operating income of polymer businesses.





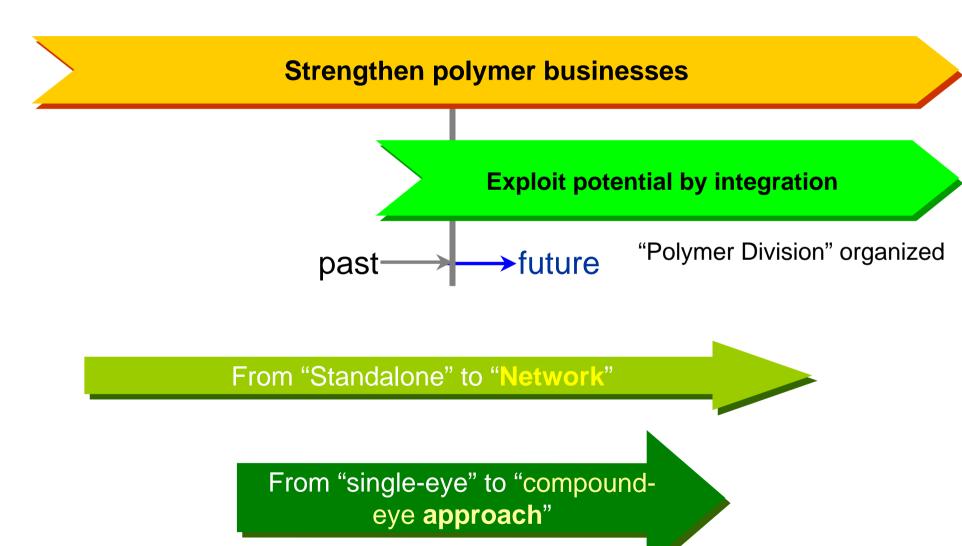
## **Polymers: Investment for Growth**

- Investment decisions made in FY2005
  - Polypropylene new 300KTA train Kashima
  - Polycarbonate chain Kurosaki; China
  - Automotive compounds worldwide
    - Buy out PP compounds JV from ExxonMobil
    - Boost TPE capacity in the U.S.

Continue to strengthen polymer businesses



## **Polymers: Strategy for the Next Stage**



## Polymers: Customer Relationship is Our Key for Success





**Output** 

Identify customer needs and translate the needs to technological terms

**Customer Lab** 

Propose alternative materials to capture the emerging needs

Strong businesses

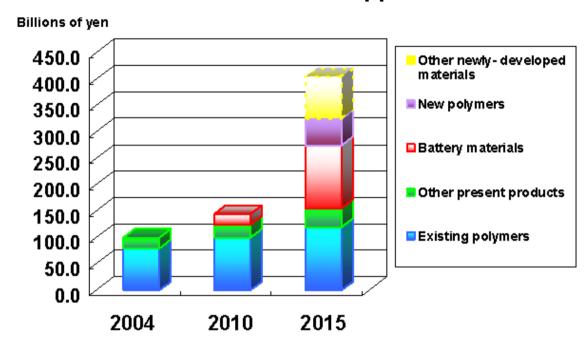


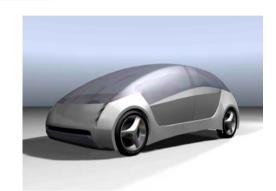
Time



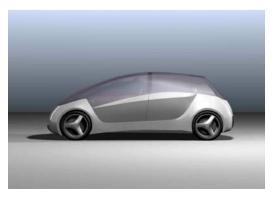
## **Polymers: Expectation for Future Growth**

#### Revenues from automotive applications











## **Polymers: Strategic Investments in FY2005**

#### PC Chain: Kurosaki & China

- Novel melt process technology with low cost, environmentally benign, hiperformance products
- Targeting No. 1 position in Asia by MEP's sales&technology services

#### **Beijing**

PC: 60KTA BPA: 100KTA SINOPEC JV

SINUPEC JV

(carrying out FS)

#### Kurosaki

PC: 60KTA

DPC:100KTA

MCC

(decided)

MEP: Mitsubishi Engineering Plastics

## Performance Polymers: U.S.

Add a new compound line to meet the strong demand of TPE for automotive parts



#### PP 300KTA line: Kashima

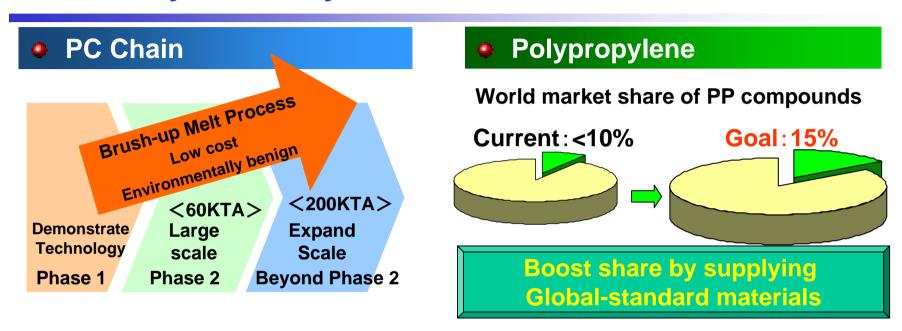
Largest train based on the in-house technology

### PP: Buy-out MYTEX shares

- Integrated business strategy for compounds
- Establish global supply network



## Polymers: Beyond KAKUSHIN Plan: Phase 2



#### PC Chain

Brush up the melt process technology to reduce costs and environmental impacts.

#### Polypropylene

Enhance the global presence of PP compounds for automotive applications.



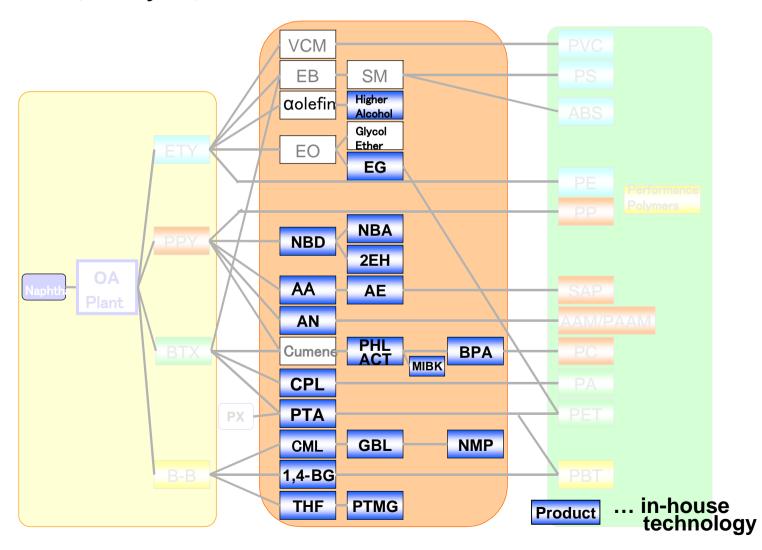
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## **Monomers: World-class Technologies**

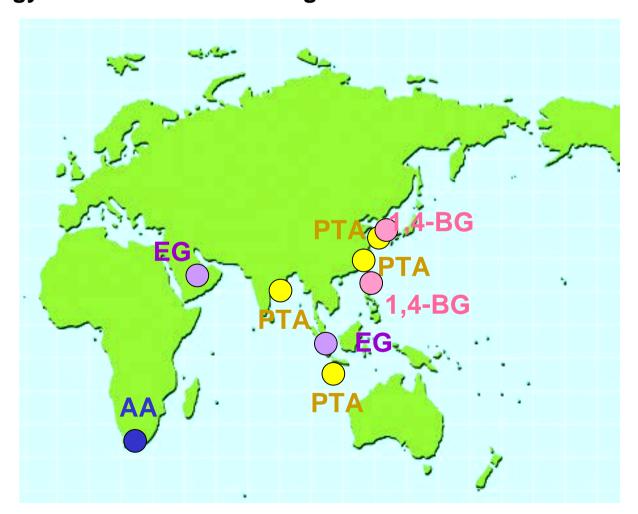
Process, catalysts, and cost reduction





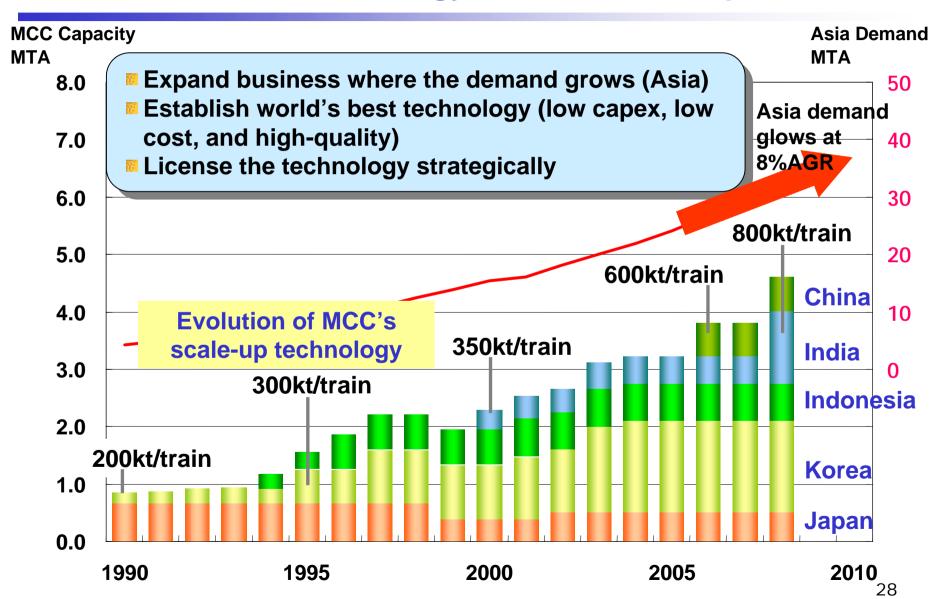
## **Monomers: Global Business Expansion**

 Capture the glowing market by taking advantage of the world-class technology and business knowledge.



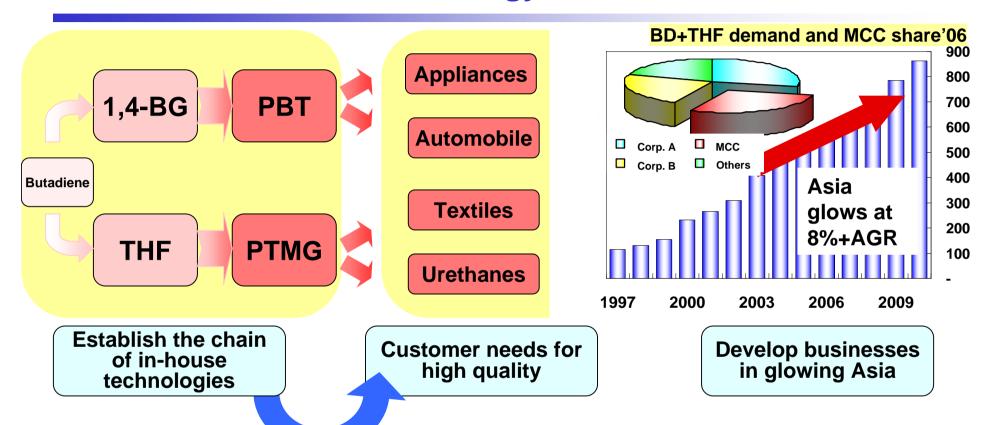


## Monomers: Business Strategy for Purified Terephthalic Acid





## Monomers: Business Strategy for 1,4-BG - PTMG Chain



- Catalyst technology
  - ⇒ Low cost
- Butadiene feedstock
  - **⇒** Process stability
- Continuous PBT process
  - ⇒ Low cost

#### **Achieve No. 1 position in Asia**

by establishing the product chain based on inhouse technologies and develop marketing capabilities in downstream applications.



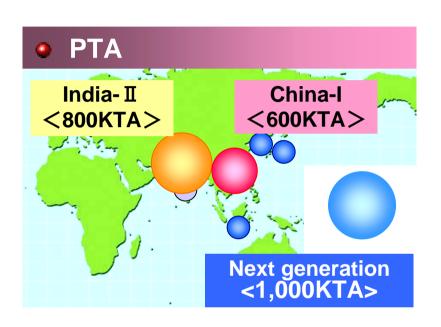
## **Monomers: Restructuring of Business Portfolio**

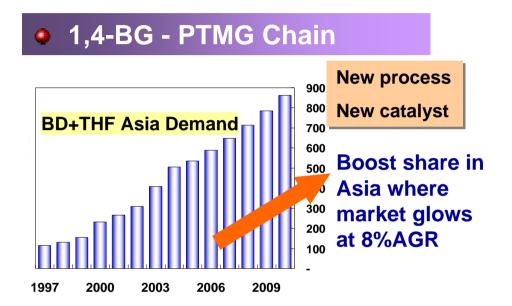
#### FY2003-FY2005

Phase out	Melamine
	Dobanol (higher alcohol)
	Nippon Phoenol/Nippon Bisphenol
	Linear alkyl benzene
	Yuka Seraya (styrene monomer)
Capacity reduction	Caprolactam
	Phthalic Anhydride
	PTA(Matsuyama)
Transfer of shares	Intack (anti-freeze)
(partly)	Dia-Nitrix (AN-AAM)



## Monomers: Beyond KAKUSHIN Plan: Phase 2





- Purified Terephthalic Acid
  - Glow business with world's best next-generation technology.
- 1,4-BG PTMG Chain
  - Accelerate growth with new process and catalyst.



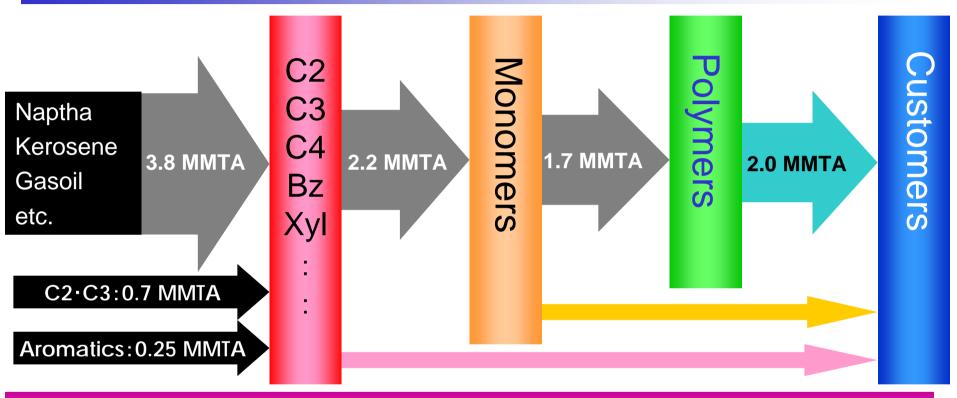
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# Olefins and Aromatics: Our Supply Chain Bolsters Operations in Japan

**MITSUBISHI** 



- Serve the diversified industrial customers in Japan through the stable supply chain of various products.
- Continue to strengthen the olefins-aromatics centers, the foundation of monomers and polymers.





# **Olefins and Aromatics: Plan for Reinforcement**

**Reduce costs** 

Low cost feedstock

**Energy saving** 

Value-creation for underutilized byproducts

Increase the capacity of olefins & aromatics to meet the growth of derivatives

Make investments throughout RING-I, II, III to reduce the cost of complex as a whole

Cooperate extensively with Kashima Oil Company (KHC; New JV = 1st step)

Install
State-of-the-art cracking furnace

Develop new production technology for olefins-aromatics

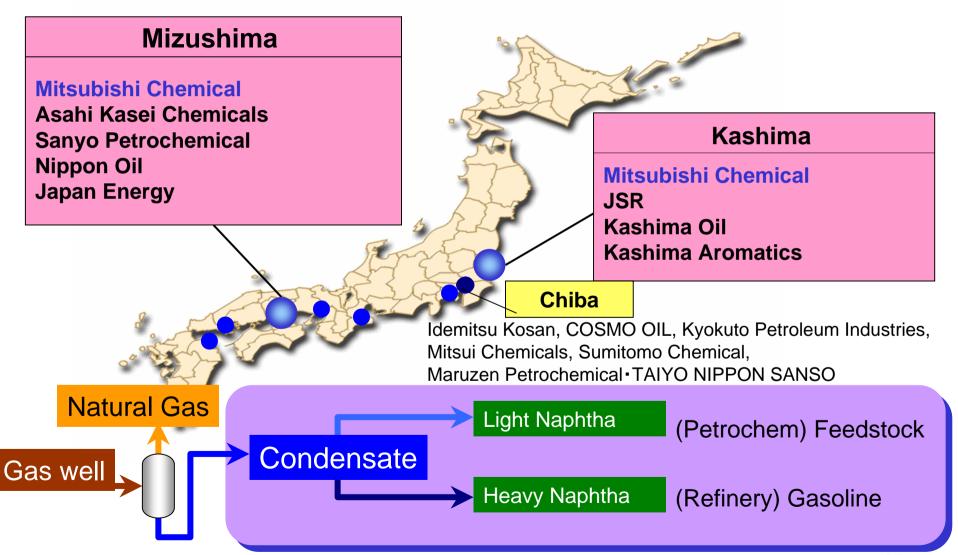




## Olefins and Aromatics: RING-III

Mitsubishi Chemical Holdings Group

(Research Association of Refinery Integration for Group-Operation)





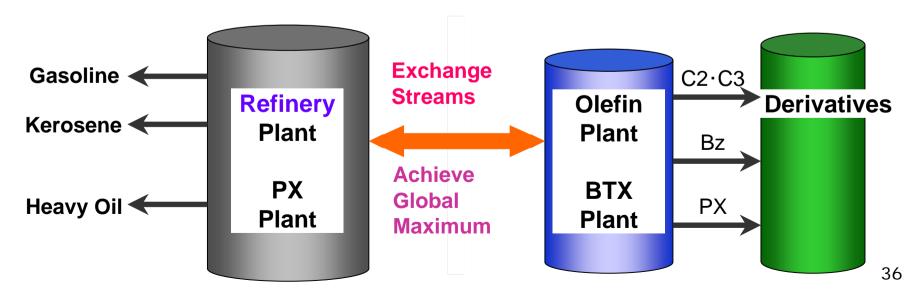
## Olefins and Aromatics: Kashima Hydrocarbon Center

## New Joint Venture (1st Step)

Produces Light naphtha & Aromatics from condensate Japan Energy Mitsubishi Chemical; in 2007



The concept; dissolve the barrier between the companies





## MITSUBISHI

#### **Olefins and Aromatics:**

## **Diversify Feedstocks and Boost Propylene Yield**

Reduce costs
Boost olefins-aromatics capacity



Utilize easy-accessible feedstocks (heavy naphtha, kerosene etc.)

Increase the propylene yield by cracking at milder conditions

Install cutting-edge cracking furnaces at Kashima (Jan. 2006) & Mizushima (2008)

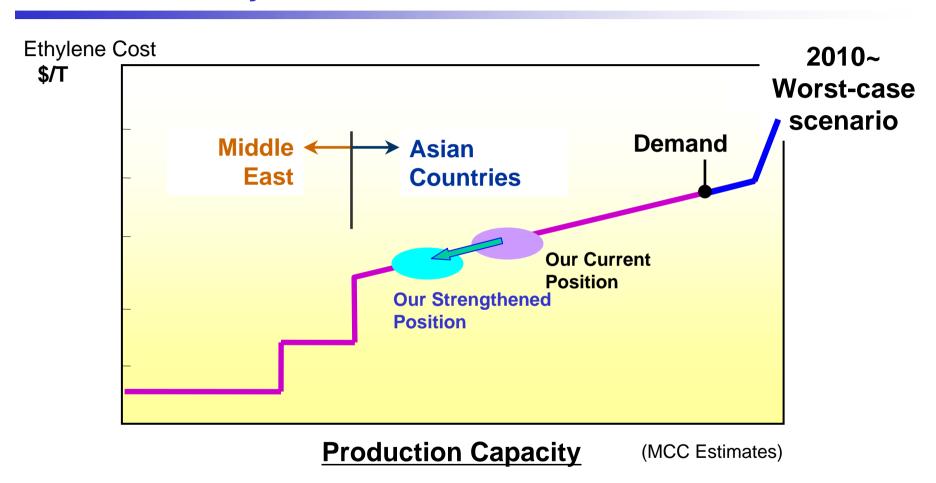






### **Olefins and Aromatics:**

## **Beyond KAKUSHIN Plan: Phase 2**



 Promote the complex integration through the cooperation between refinery, petrochemicals, and fine chemicals



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## **Operating Income Target in KAKUSHIN Plan: Phase 2**

**Operating Income** JPY Billions 50 46.0 **Target** 40 38.0 35.0 **Target** Forecast 30.9 30 Result 20 10 0

**FY2007** 

**FY2008** 

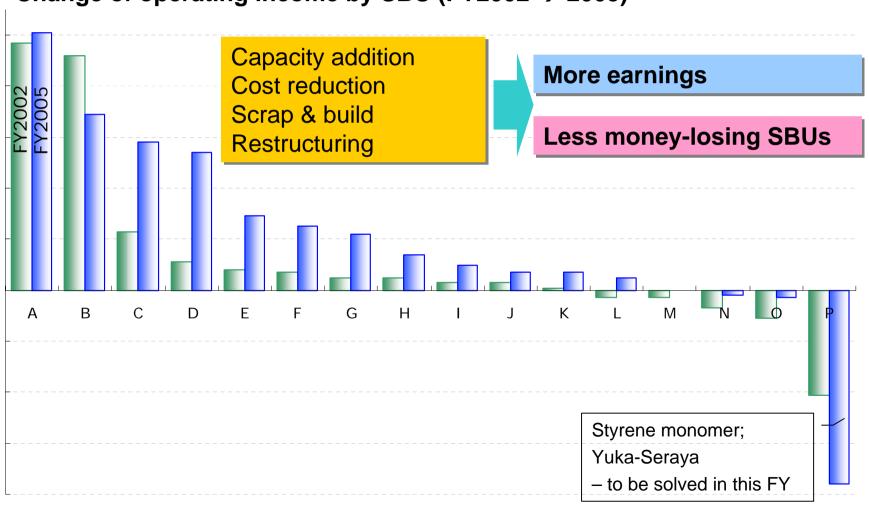
**FY2006** 

**FY2011** 



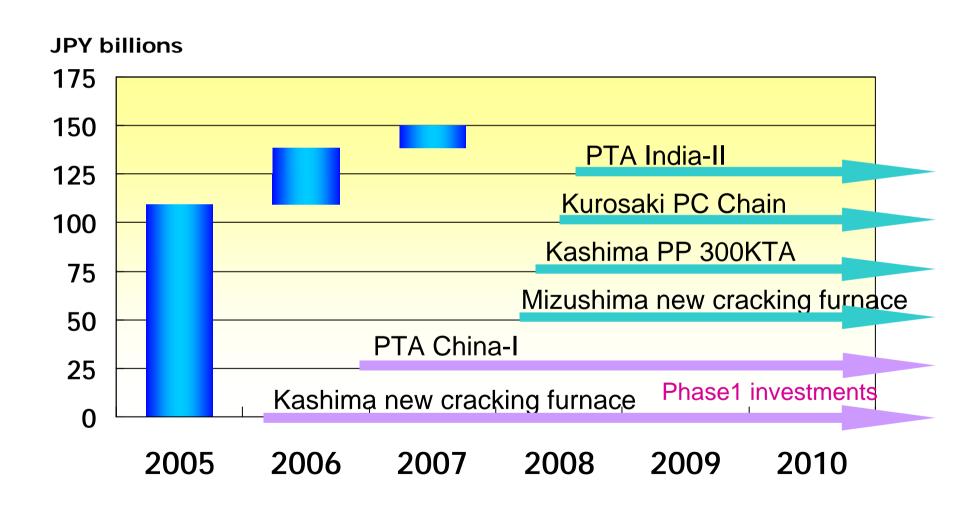
## **Increase Profit by Improving Individual Businesses**

#### Change of operating income by SBU (FY2002 → 2005)





## **Capital Investment and Timeline of Business Contribution**





## **Summary**

**Expand the core** businesses globally PC Chain **Performance Polymers** 1,4-BG-PTMG New core businesses

Reshape the business infrastructure in Japan

Strong customer relationships

Marketing capability

Advanced needs

Resource of investments
Stable profits

Integrated polymer business

Technology

Petrochemicals complexes<sub>43</sub>



## **Forward-looking Statements**

The forward-looking statements are based largely on information available as of the date hereof, and are subject to risks and uncertainties which may be beyond company control. Actual results could differ largely, due to numerous factors, including but not limited to the following: Group companies execute businesses in many different fields, such as petrochemicals, carbon and inorganic products, information and electronics, pharmaceuticals, polymers and processed products, and these business results are subjected to influences of world demands, exchange rates, price and procurement volume of crude oil and naphtha, trend of market price, speed in technology innovation, National Health Insurance price revision, product liabilities, lawsuits, laws and regulations.