

# The Sixth Medium-Term Management Plan (for Fiscal 2008-2010)

May 2, 2008 Mitsubishi Rayon Co., Ltd

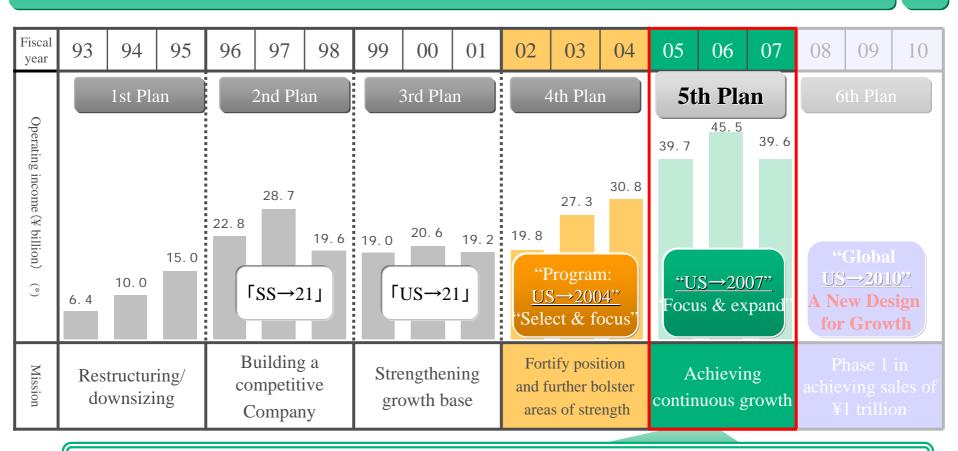
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- 1. Review of the Fifth Medium-Term Management Plan
- 2. Overview of the 6th Medium-Term Management Plan (FY2008-2010)
- 3. Key Initiatives
- 4. Return to Shareholders
- 5. For Further Growth

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#### Positioning of the 5th Medium-Term Management Plan



Theme: Aiming to realize high-earnings, strong-growth Mitsubishi Rayon Group Issues addressed: Accelerating the growth of MMA and AN businesses

Ongoing initiatives aimed at strengthening
Establishment of new businesses

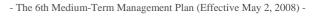
<sup>\*</sup>The figures represent amounts prior to amortization of differences arising from changes in actuarial assumptions.

<sup>-</sup> The 6th Medium-Term Management Plan (Effective May 2, 2008) -

#### Achievements under the 5th Medium-Term Management Plan

Tar	gets and Results							
	<b>5</b> • • • • • • • • • • • • • • • • • • •			(¥ billion)				
Segment FY2004			FY2005	FY2006	FY2007	Original targets of US→2007 Plan		
	Chemicals & plastics	154.3	171.0	185.6	187.0	205.0		
\ <u>\</u>	Acrylic fibers & AN monomer and derivatives	38.7	37.7	73.8	73.7	45.0		
Sales	Carbon fibers and composite materials	26.6	33.0	40.0	46.8	30.0		
	Acetate fibers & membranes and others	110.5	107.2	117.7	1,11.0	120.0		
	Total	330.1	349.0	417.0	418.5	400.0		
Ope	Chemicals & plastics	22.1	28.0	29.5	23.6	29.5		
Operating in	Acrylic fibers & AN monomer and derivatives	0.4	-1.0	0.1	1.0	1.0		
income	Carbon fibers and composite materials	2.7	7.1	10.4	11.3	3.5		
e (loss) (*)	Acetate fibers & membranes and others	5.4	5.4	5.4	3.6	6.0		
s) (*)	Total	30.8	39.7	45.5	39.6	40.0		

<sup>\*</sup>The figures represent amounts prior to amortization of differences arising from changes in actuarial assumptions.



# Plant & Equipment Investment

	US→2004	US→2007	(¥ billion)
	FY2004 (2002 - 2004)	FY2007 (2005 - 2007)	Original targets of US→2007 Plan
Capital expenditures	64.2	95.2	65.0
Depreciation	46.6	57.0	55.0
R&D expenses	32.5	33.7	35.0

Investment projects under US→2007 Plan	Company name	Investment
China/Acrylic sheets, Coating materials	Mitsubishi Rayon Polymer Nantong	US\$30 million
China/Acrylic fibers	Ningbo Rayon Acrylic Fibers	US\$100 million
China/MMA monomers	Huizhou MMA	US\$100 million
Japan/Prism sheets	Mitsubishi Rayon	¥2 billion
Japan/Carbon fibers	Mitsubishi Rayon	¥7 billion
Japan, U.S.A/Carbon fibers	Grafil	

#### **MMA Business Complex's Groupwide Production Capacity**

US→2004 US→2007

	Product	FY04	FY07		Japan	Thailand	Asia China	Korea	North America	
Monomers	MMA monomers 307,00		397,000	FY04 year-end	217,000	90,000				
mers	(t/year)	307,000	377,000	FY05-07 new capacity			90,000			
F	Acrylic resin pellets	00.700	00.700	FY04 year-end	47,700	12,000	40,000			
Iomop	(t/year)	99,700	99,700	FY05-07 new capacity						
olymer	Acrylic reshi penets  (t/year)  Acrylic sheets  (t/year)	46,600	46,600	(( )00	FY04 year-end	46,600				
8				00 66,200	FY05-07 new capacity			20,000		
Copo	Coating materials	47, 400	<b>50,000</b>	FY04 year-end	30,000	(*)9,400			8,000	
Copolymers	(t/year)	47,400	50,900	FY05-07 new capacity			3,500			
Proc proc	Prism sheets	2,000	<i>c</i> 000	FY04 year-end	3,000					
Processed products	(million/year)	3,000	6,000	FY05-07 new capacity	3,000					
Tota Plas	l sales of Chemicals and ics	¥153 billion	¥187 billion							
	l operating income of micals and Plastics	¥22.1 billion	¥23.6 billion							

<sup>\*</sup>Including the production capacity of 5,400 tons per annum at our Indonesian affiliate

# **AN Business Complex's Groupwide Production Capacity**

	US→2004	US→2007					
Product	FY04	FY07		Japan	China	North America	U.K.
Acrylonitrile	0	200,000	FY04 year-end				
(t/year)			FY05-07 new capacity	* 200,000			
Acrylic fibers	132,000	182,000	FY04 year-end	132,000			
(t/year)	132,000	102,000	FY05-07 new capacity		50,000		
Carbon fibers	4,700	8,150	FY04 year-end	3,200		1,500	
(t/year)	4,700	0,150	FY05-07 new capacity	2,200		500	750
Total sales of AN business complex	¥65.3 billion	¥120.5 billion					
Total operating income of AN business complex	¥3.1 billion	¥12.3 billion					

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# **Basic Management Stance**

#### Management philosophy

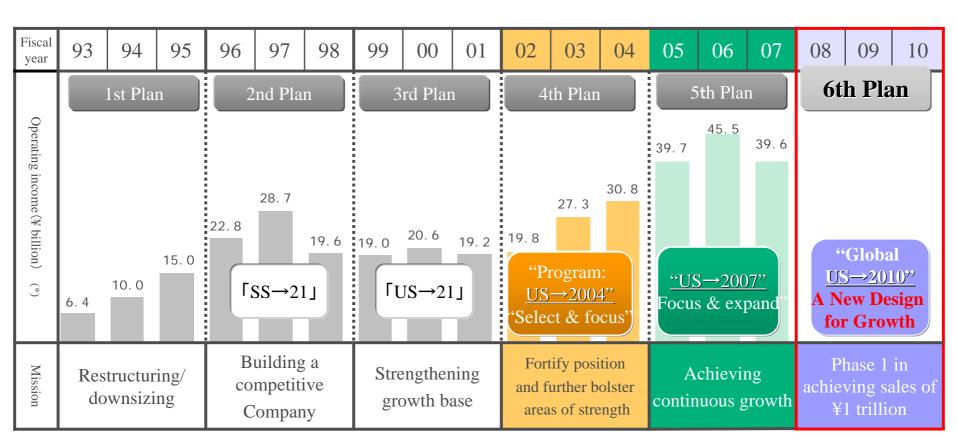
Committed to the creation of unique, highquality products and services that contribute to society as a whole

# Best Quality for a Better Life

#### **Basic Management Stance**

- 1. CSR-Focused Management
- 2. Full Human Resource Development
- 3. A Well-Balanced Business Portfolio

#### Positioning of the 5th Medium-Term Management Plan



<sup>\*</sup>The figures represent amounts prior to amortization of differences arising from changes in actuarial assumptions.

<sup>-</sup> The 6th Medium-Term Management Plan (Effective May 2, 2008) -

#### Overview of the 6th Medium-Term Management Plan (FY2008-2010)

#### Theme

"Global US 2010" A New Design for Growth

Our Basic Stance in the Sixth Plan

Phase 1 in achieving ¥1 trillion in sales: Firming our base

# Our Current Operating Environment

•Economic slowdown in U.S., weak dollar (Growing instability in the global economy)

•Surging fuel and materials costs (Resource-rich countries assume greater prominence)

•Global competition (Restructuring within the industry)

•Rise of new emerging economies (Expansion in growth markets)

#### Overview of the 6th Medium-Term Management Plan (FY2008-2010)

# Issues addressed



#### JK→2010\* (Reinforcement of operational competitiveness)

Revamp operational processes companywide to enhance the Company's capacity to respond to unfavorable conditions in the business environment.



#### Expand our core business (acrylic business)

MMA (methyl methacrylate) Business Complex: Aiming to become the world's No. 1 MMA supply chain in both operational scale and profitability.

AN (acrylonitrile) Business Complex: Strengthen value chain development, which encompassing not only AN monomers but also carbon fibers and composite materials.



#### Tackle unprofitable businesses

Restructure unprofitable overseas Group affiliates



#### Cultivate next-generation core businesses

Take steps to achieve sales of ¥1 trillion

#### Numerical Targets under the 6th Medium-Term Management Plan

#### Performance targets under the new management plan

	FY2007	FY2008 (Estimate)	FY2010 (Plan)
Sales	418.5	430.0	500.0
Operating income	39.6	30.0	40.0
EBITDA	65.0	57.8	75.8
ROE	7.5%	6.5%	8.5%

Assumption: Exchange rate =  $\frac{100}{US}$  Domestic naphtha price =  $\frac{467,000}{KL}$ 

#### Notes:

<sup>1.</sup> The earnings figures represent amounts prior to amortization of differences arising from changes in actuarial assumptions.

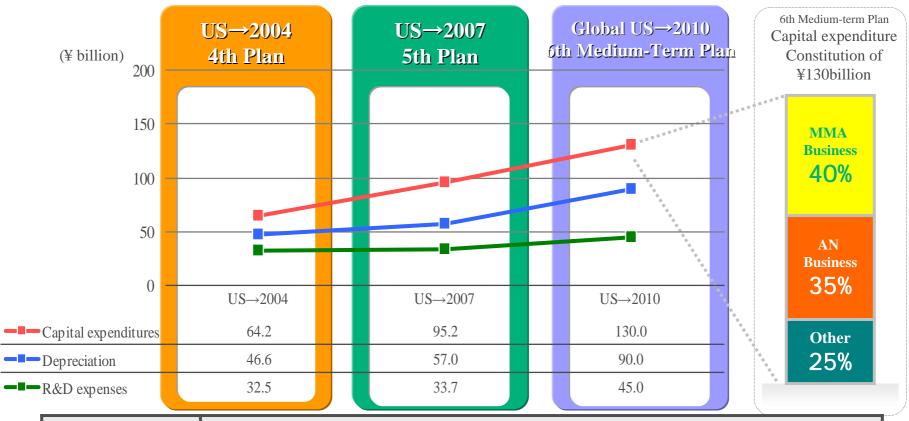
<sup>-</sup> The 6th Medium-Term Management Plan (Effective May 2, 2008) -

#### Numerical Targets under the 6th Medium-Term Management Plan

(¥ billion)

	US→2007			US→2007 Global US→2010					
		FY2007		FY2008 (Estimate)			FY2010 (Plan)		
	Sales	Operating income	EBITDA	Sales	Operating income	EBITDA	Sales	Operating income	EBITDA
Chemicals & plastics	187.0	23.6	36.4	195.0	21.0	35.5	250.0	26.0	44.0
Acrylic fibers & AN monomer and derivatives	73.7	1.0	5.7	71.0	-1.0	3.8	70.0	3.0	8.3
Carbon fibers and composite materials	46.8	11.3	16.1	47.0	6.0	11.5	55.0	6.5	15.0
Acetate fibers & membranes and others	111.0	3.6	6.7	117.0	4.0	7.0	125.0	4.5	8.5
Total	418.5	39.6	65.0	430.0	30.0	57.8	500.0	40.0	75.8

# Plant & Equipment Investment Schedule



Main investments	Investment schedule under 6th Medium-Term Plan (FY2008-2010)						
MMA Business	Plans to expand the MMA Chain. The expansion of existing facilities and the construction of a new plant (for monomers & resin sheets) at Thai MMA Co., Ltd., and other projects.						
AN Business	Plans for further expansion of production in Japan and overseas. New construction of carbon fiber sintering plant (with a capacity of 2,700 tons) at the Otake Production Center, and other projects.						
Other	Investment in new business areas.						

- The 6th Medium-Term Management Plan (Effective May 2, 2008) -

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#### **Key Initiatives 1: "JK→2010"** (Reinforcement of operational competitiveness)

•Implementation of the "JK→2010"

Introducing group-wide operational reforms to improve the Company's ability to cope with the harsh operating environment

\*"JK" refers to an ongoing program introduced in 1993 to strengthen operational competitiveness

Rationalization
Measures to cut
costs by ¥10
billion in 3 years.

Cost reductions

Enhanced competitiveness through reforms of the cost structure

- 1. Innovations in production technology
- 2. Reforms of the distribution and sales system & cost cutting
- 3. Enhanced competitiveness in materials procurement

Development of <u>new usages</u>, <u>new customers</u>, <u>new products</u>

- ...New carbon fiber product for larger scale composite parts ("PYROFIL P330 series")
- ...Blu-ray disc hard coat material
- ...Polymers for semiconductor ArF resists

Reforms in the profit structure through expansion into new business fields in the foreseeable future

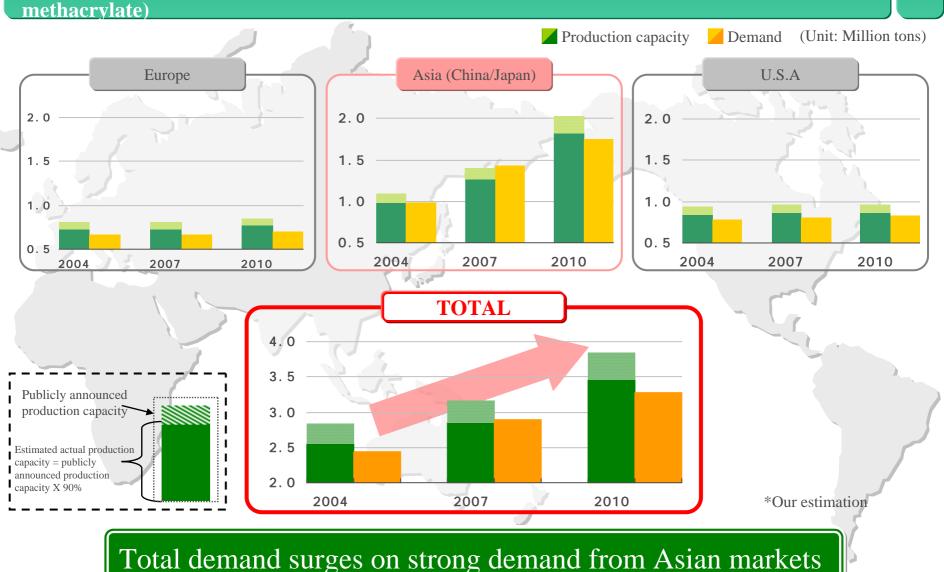
- The 6th Medium-Term Management Plan (Effective May 2, 2008) -

#### **Key Initiatives 2-1: Expansion of Core Business-MMA Business Complex**

# Becoming the world's No. 1 MMA supply chain in both operational scale and profitability

- ◆ Strategies for the MMA business complex Vertical and horizontal integration
  - ©From upstream to downstream
    - → Integrated production from monomers and polymers
  - OGlobal expansion to Asia, the U.S.A and Europe
    - → Economies of scale and economies of scope
    - → Pursuing cost-competitiveness

# Key Initiatives 2-1: MMA Business Complex – Balance of supply and Demand for MMA (methyl

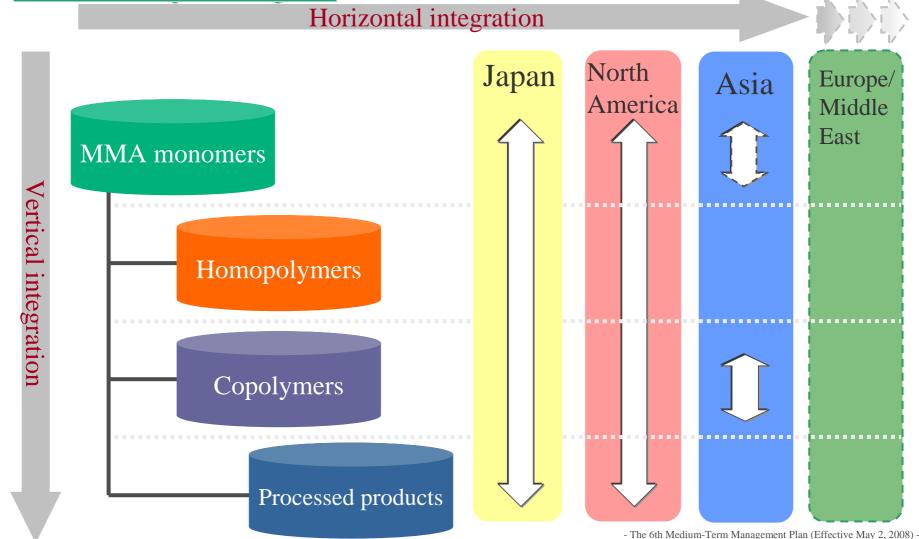


#### Key Initiatives 2-1: MMA Business Complex — Share of MMA Monomers



#### Key Initiatives 2-1: MMA Business Complex – Expanding the MMA Business Complex

Continuous production encompassing monomers and polymers, derivatives, and processed goods.

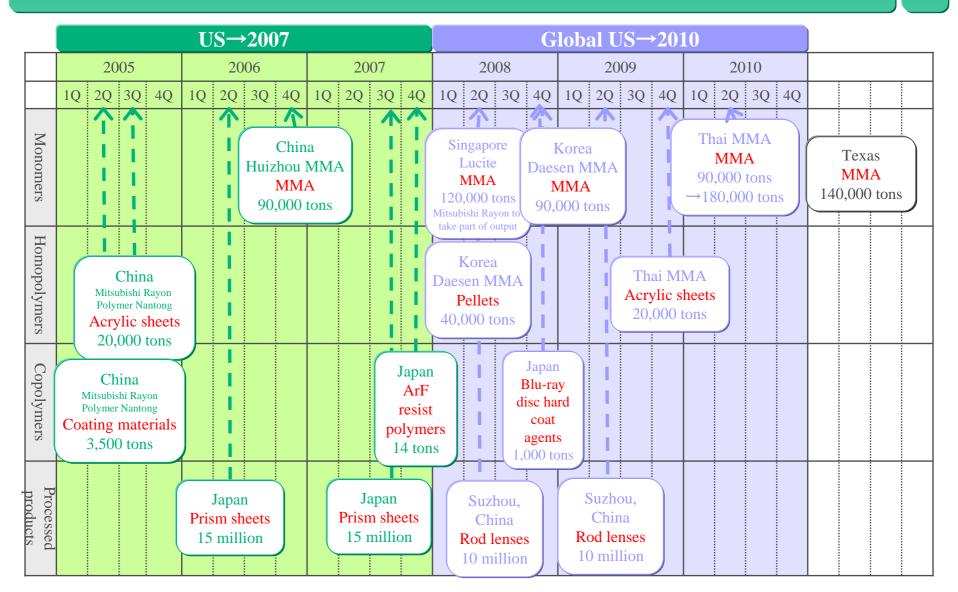


#### **Key Initiatives 2-1: MMA Business Complex – Expanding the Group's production capacity**

		US→2007	Global US→2010						
	Product	FY2007	FY2010		Japan	Thailand	Asia China	Korea	North America
Monomers	MMA monomers	397,000	577,000	FY07 year-end	217,000		90,000	Korca	TWOITH THIRDING
(t/year	397,000	377,000	FY08-10 new capacity		90,000		90,000		
H	Acrylic resin pellets	00.700	120 700	FY07 year-end	47,700	12,000	40,000		
domop	(t/year)	99,700	139,700	FY08-10 new capacity				40,000	
Homopolymers	Acrylic sheets 66.20	66 200	66,200 86,200°	FY07 year-end	46,200		20,000		
S	(t/year)	00,200		FY08-10 new capacity		20,000			
Copol	Coating materials	50,000	50,000	FY07 year-end	30,000	(*) 9,400	3,500		8,000
Copolymers	(t/year)	50,900	50,900	FY08-10 new capacity					
Processed products	Prism sheets	6,000	6,000	FY07 year-end	6,000				
Processed products	(million/year)	6,000	6,000	FY08-10 new capacity					
Tota Plast	l sales of Chemicals and tics	¥187.0 billion	¥250.0 billion						
	l operating income of micals and Plastics	¥23.6 billion	¥26.0 billion						

<sup>-</sup> The 6th Medium-Term Management Plan (Effective May 2, 2008) -

#### Key Initiatives 2-1: MMA Business Complex — Schedule for starting operation



Note:Q=calendar year quarters

# Structural reform of the AN Business Complex

→ Strengthening the value chain from AN monomer precursors to carbon fiber and composite material products

Strategies of the AN Business Complex

Vertical and horizontal integration

- © Bolstering expansion in North America and Europe of the carbon fiber and composite materials operations
- © Increasing the scale of our sintering capacity in carbon fiber operations Structural reform of acrylic fiber
  - Accelerating the switchover from acrylic fiber production lines to precursor production lines
  - O Downsizing acrylic fiber operations

#### Key Initiatives 2-2: AN Business Complex — Carbon Fiber Demand

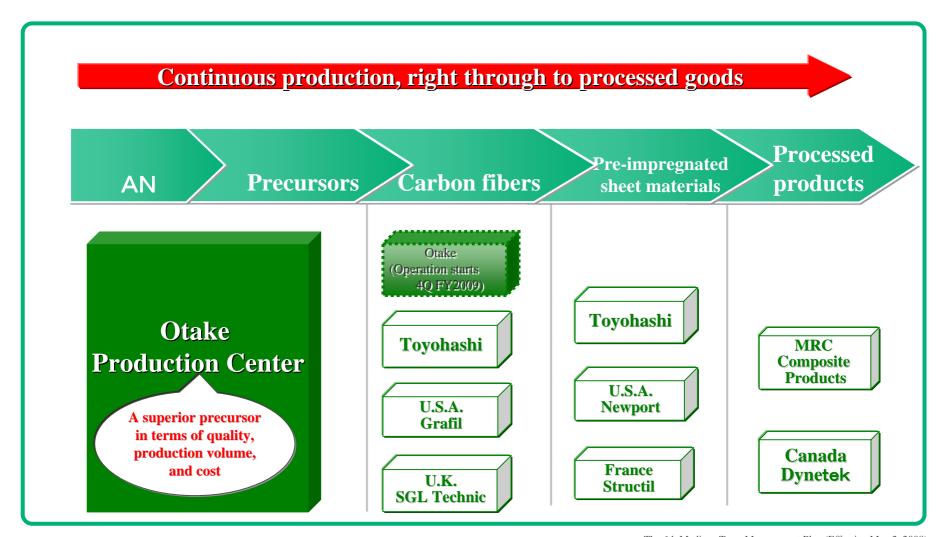
#### World demand for carbon fiber by user segment



- The 6th Medium-Term Management Plan (Effective May 2, 2008) -



#### Carbon Fibers and Composite Materials Business



	US→2007	Global US→2010									
Product	FY2007	FY2010		Japan	China	U.S.A/Canada	U.K.				
Acrylonitrile	200,000	200,000	FY07 year-end	200,000							
(t/year)	,	,	FY08-10 new capacity								
Acrylic fibers	182,000	102 000	102 000	102 000	102 000		FY07 year-end	132,000	50,000		
(t/year)		132,000	FY08-10 new capacity	-50,000 ~	80,000						
Carbon fibers	8,150	10,850	FY07 year-end	5,400		2,000	750				
(t/year)	0,130	10,630	FY08-10 new capacity	2,700							
Total sales of AN business complex	¥120.5 billion	¥125.0 billion									
Total operating income of AN business complex	¥12.3 billion	¥9.5 billion									

		US→2004	US→2007	Global US→2010
	Location	FY04 sintering capacity	FY2007 sintering capacity	FY2010 sintering capacity
Mitsubishi Rayon	Toyohashi (t/year)	3,200	5,400	5,400
bishi 70n	Otake (t/year)	O	O	2,700
U.S.A•U.K	GRAFIL (t/year)	1,500	2,000	2,000
·U.K.	SGL Technic (t/year)	O	750	750
Tot	tal (t/year)	4,700	8,150	10,850
		FY2004	FY2007	FY2010
	sales of Fibers and posite Materials business	¥26.6 billion	¥46.8 billion	¥55.0 billion
Total operating income of Fibers and Composite Materials business		¥2.7 billion	¥11.3 billion	¥6.5 billion

# **Key Initiatives 3: Tackling unprofitable businesses**

# Restructuring of unprofitable overseas affiliates

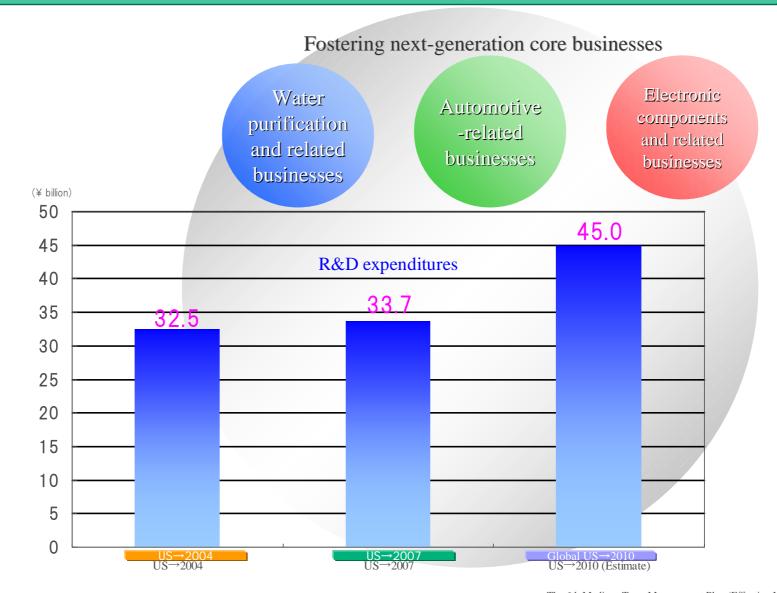
Overseas production base for acrylic fiber business

Overseas production base for non-core chemical business

Radical reforms for unprofitable operations

#### **Key Initiative 4: Fostering Next-Generation Core Businesses**

- Boosting R&D expenditures



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#### **Return to Shareholders**

# **Basic policy**

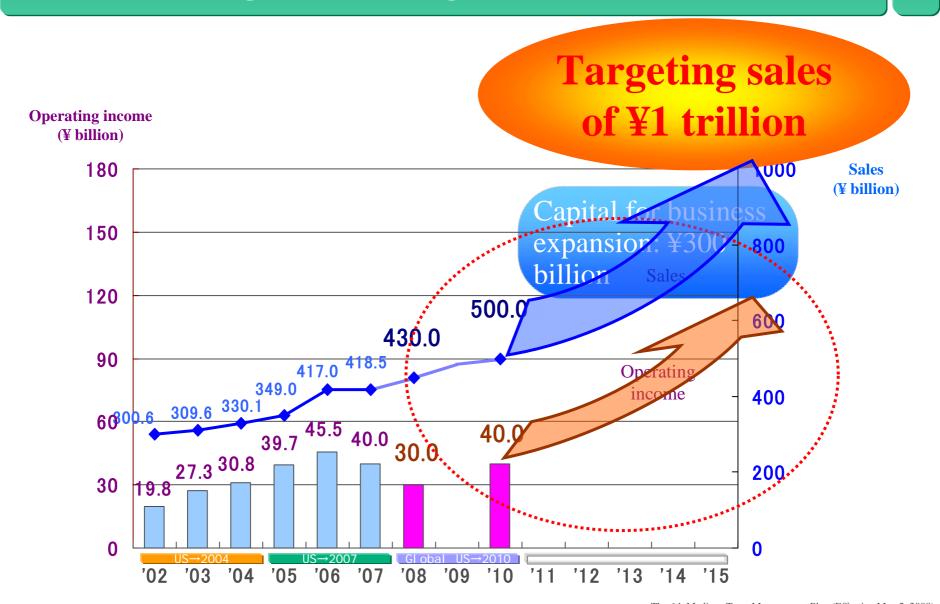
Mitsubishi Rayon seeks to link its dividend payments more closely to its consolidated business performance and to always take the dividend ratio into due consideration.

	FY2007	FY2008	FY2010
		(Estimate)	(Plan)
Operating			
income	39.6	30.0	40.0
(¥ billion)			
Dividends	11.0	11	0
(Yen/share)	11.0	11	

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#### Toward further growth: Aiming to achieve sales of ¥1 trillion



### **Key Initiatives 4-1: Strengthening Our R&D Structure**

#### **Dramatically increase R&D investments**

- 5th medium-term management plan: ¥33,700 million.
  - → 6th medium-term management plan: ¥45,000 million.

# Strengthening collaborative ties with academia and government, and expanding the scope of activities

- Redoubling of joint research, The promotion of the national project
- Formed comprehensive tie-up with Hiroshima University

# Encourage close collaboration of each research facility Corporate Research Laboratories: Development of basic materials, new materials,

- Corporate Research Laboratories: Development of basic materials, new materials, further development of core technologies
- Production Technology Laboratories: Development of process technologies, Innovation of product process
- Toyohashi Corporate Research Laboratories: Development of functional products (Carbon Fibers and Composite Materials, Coating resins&modifiers, Water purification)
- Yokohama Corporate Research Laboratories: Development of cutting-edge materials (electronic and optical devices, life science)



Construction of new research facilities at the Yokohama Corporate Research Laboratories will be completed in 2009.

#### **Key Initiatives 4-2: Fostering Next-Generation Core Businesses**

#### •Water purification and related businesses

Upgrade micro-filter (MF) membranes and raise cost-competitiveness, create hybrids between MF membranes and reverse osmosis (RO) membranes, promote alliances

→ Expand business operations primarily in Asian and European markets

Micro-filter membranes, membrane bioreactor (MBR) and reverse osmosis (RO) hybrids (mainly for making sea water into fresh water), membrane units for water purification, membrane units for treatment of sewage and wastewater as well as for water purifier tanks, water purifiers, artificial carbonated springs, polymer flocculant, etc.

#### Automotive-related businesses

Raising the grades of carbon fiber composite materials, resins, films, optic fiber, strengthening collaborative ties with academia and government

→ Expand the business through the pursuit of lighter-weight product models, recycling and cost reductions

A wide variety of carbon fiber composite materials, glazing materials, gas diffusion layer (GDL) for fuel cell batteries, decorative film, exterior paints, undercoat agents, hard coating agents for use in lamps, plastic optical fiber LAN, etc.

#### • Electronic components and related businesses

Monomer and polymer refined synthesis, based on material design, precision molecular design based on optical engineering

→ By working closely with customers, propose high-performance materials to expand our business

High-performance displays, high-performance anti-reflective film (moth-eye structure), materials for backlighting systems, optic materials for telecommunications applications, polymers used in ArF resist production, materials for next-generation discs, conductive polymers, new materials, etc.

#### For reference

# **Product Categorization**

		Acrylic	Non Asmilia Dusinasa	
		MMA Business Complex	AN Business Complex	Non-Acrylic Business
Chemicals & Plastics	Chemicals	MMA monomers, Methacrylic acid ester	1 	Dimethylamamide
	Plastics	Acrylic sheets, acrylic resin pellets	 	PBT resins
	Functional chemicals	Coating materials, plastic modifiers		
	Information materials	Prism sheets, optical fibers, rod lenses		
Acrylic fibers/AN monomer and derivatives	AN monomer and derivatives		AN monomers, flocculants	
	Acrylic fibers		Acrylic staple fibers	
Carbon fibers and composite materials			Carbon fiber tow, Pre- impregnated sheet materials, Processed products	
Acetate fibers & membranes and others	Acetate fibers		1 1 1 1	Textiles
	Membranes & engineering			Water purifiers, water treatment equipment and systems, plant engineering
	Others		1 1 1 1	Ryoko Co., Ltd. Others

# Achievements under US-2007 and Ongoing Challenges

Major issues	Current situation	Ongoing challenges	
(1) Accelerating the growth of MMA, AN Business	<ul> <li>MMA Chain</li> <li>China MMA monomer and polymer plant started up as planned</li> <li>Secured an additional base for the commencement of MMA monomer production and began construction</li> <li>Developed new components in functional chemicals:  Blu-ray disc hard coat materials  Polymers for semiconductor ArF resists</li> </ul>	Improvement of the profitability homo-polymer business	
Complexes	<ul> <li>AN Chain</li> <li>Started full-scale operation of Ningbo Rayon Acrylic Fibers plant in China</li> <li>Started up expanded facility for carbon fiber as planned</li> <li>Launch of the new high-performance carbon fiber product for larger scale composite parts ("PYROFIL P330 series")</li> </ul>	<ul> <li>Radical measures to turn around low-profit Group companies (acrylic fiber and spinning)</li> <li>Realize sales of carbon fiber and composite materials for the production of aircraft</li> </ul>	
(2) Ongoing initiatives aimed at strengthening competitiveness	Achieved our three-year accumulated target of ¥10 billion		
(3) Establishment of new businesses	<ul> <li>Started selling a new type of prism sheets. Commenced operations of new production lines for this product.</li> <li>In our water treatment business, developed a hollow fiber membrane filter, using polyvinylidene (PVDF), for large-scale waste-water treatment applications</li> </ul>	Continue to work on creating next- generation core businesses	

#### **Achievements under the 5th Medium-Term Management Plan**

# Current situation of major investment projects

Situation	Start-up	Product	Capacity	Company name	Location	Investment (US\$ million)
Operation started	June 2005	Coating materials	3,500 t/year	Mitsubishi Rayon	Nantong, China	30
	July 2005	Acrylic sheets	20,000 t/year	Polymer Nantong		
	Dec. 2005	Acrylic fibers	50,000 t/year	Ningbo Rayon Acrylic Fibers	Ningbo, China	100
	Jan. 2006	Carbon fibers	1,500→2,000 t/year	Grafil	U.S.A	
	June 2006	Prism sheets	30 million→45 million/year		Japan	
	Dec. 2006	MMA monomers	90,000 t/year	Huizhou MMA	Huizhou, China	100
	Jan. 2007	Carbon fibers	500 - 750 t/year	SGL Technic	U.K.	(OEM)
	May 2007	Carbon fibers	3,200→5,400 t/year	Mitsubishi Rayon	Japan	¥7 billion
	Sep. 2007	Prism sheets	45 million→60 million/year		Japan	¥2 billion

#### Achievements under the 5th Medium-Term Management Plan

#### Depreciation, Capital expenditures, and R&D expenses

(¥ billion)

Depreciation	FY2005	FY2006	FY2007	
Chemicals & plastics	8.91	9.25	12.83	
Acrylic fibers & AN monomer and derivatives	1.94	3.28	3.97	
Carbon fibers and composite materials	2.01	2.32	4.79	
Acetate fibers & membranes and others	2.40	2.18	3.11	
Total (consolidated basis)	15.26	17.03	24.71	
Capital expenditures	FY2005	FY2006	FY2007	
Chemicals & plastics	17.14	16.61	17.01	
Acrylic fibers & AN monomer and derivatives	4.89	5.19	2.76	
Carbon fibers and composite materials	4.33	11.66	6.72	
Acetate fibers & membranes and others	2.53	3.60	2.72	
	28.89	37.06	29.21	
R&D expenses	FY2005	FY2006	FY2007	
(Prior to amortization of difference in actuarial value)	10.70	11.10	11.90	

# MMA Business Complex – Broadening our base through horizontal integration For reference

Area		Mitsubishi Rayon				
Product		Japan	China	Thailand	Korea	North America
Monomers	MMA monomers	Otake	Huizhou MMA	Thai MMA	Daesen MMA	Hauston (planding)
	Methacrylic acid ester	Otake	Suzhou Sanyouli Chemicals	Thai MMA		
Homopolymers	Acrylic resin pellets	Otake/Toyama	Nantong Rayon Chemical	Diapolya crylate	Daesen WilviA	
	Acrylic sheets	Otake/Toyama	Mitsubishi Rayon Polymer Nantong	Thai MMA		
Copol	Plastic modifiers	Otake				
Copolymers	Coating materials	Otake	Mitsubishi Rayon Polymer Nantong	MRC Resins		Texas Dianal America
Processed products	Prism sheets	Yokohama				
	Optical fibers	Toyama				

The business performance forecasts and targets included in business plans contained in this presentation are based on information known to the Company's management as of the day of presentation. Please be aware that the content of such forward-looking statements may differ significantly from actual results, owing to a number of unforeseeable factors.