

三菱レイヨン

GROUP

The Fifth Medium-Term Management Plan

(for Fiscal 2005-2007)

April 12, 2005
Mitsubishi Rayon Co., Ltd.

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§ 1-1 Overview

Creating a high-earnings, strong-growth corporate group “Program: US 2004” — Selection & Focus—

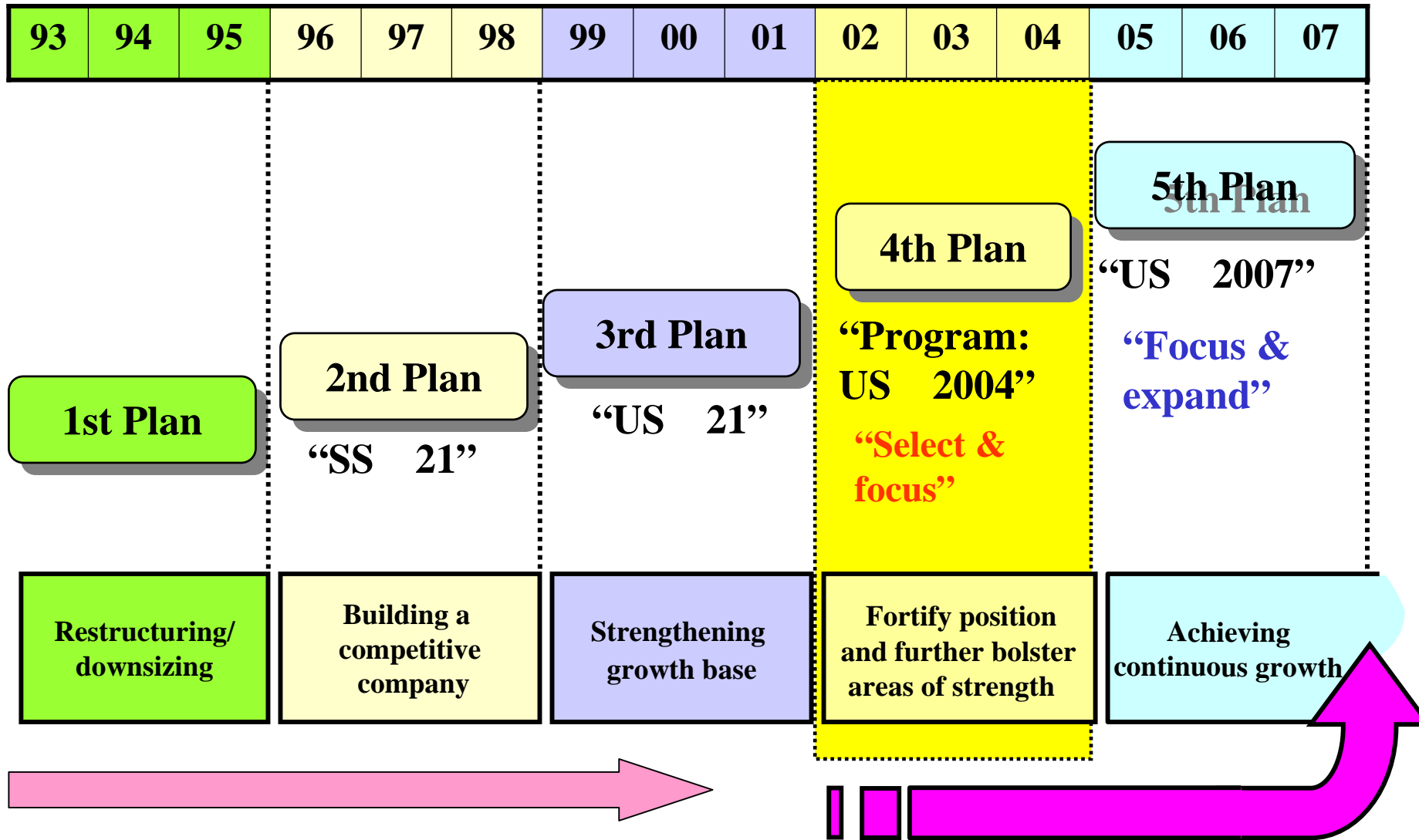
Period: Fiscal 2002-2004

Mission: Implementation of overall growth scenario

Major Issues:

- (1) Refining our business portfolio management & achieving growth**
- (2) Reform of earning structures to improve efficiency**
- (3) Strengthening R&D capabilities**
- (4) Raising level of environmental awareness**

§ 1-2 Mission



Laying the groundwork for future growth

Becoming a high-earnings, strong-growth corporate group

§ 1-3 Numerical performance and targets

(¥ billion)

Fiscal	2001	2002	2003	2004	
				Targets	Estimates*
Net sales	306.5	300.6	309.6	340.0	330.0
Chemicals & Plastics	123.3	116.2	125.2	130.0	140.0
Fibers	97.0	94.4	90.8	95.0	90.0
Specialty Products & Engineering	86.2	90.0	93.6	115.0	100.0
Operating income	19.2	19.8	27.3	30.0	30.0
Chemicals & Plastics	13.6	15.4	20.7	16.0	20.0
Fibers	2.8	3.0	3.8	6.0	3.0
Specialty Products & Engineering	2.8	1.4	2.8	8.0	7.0
Exchange rate (¥/US\$)	124	121	112	120	107
Domestic naphtha price (¥/KL)	22,050	23,950	25,600	20,000	33,000

*Estimates for fiscal 2004 shows forecast performance announced on Nov. 10, 2004. 5

§ 1-3 Numerical performance and targets

(¥ billion)

Fiscal	2002	2003	2004 (Estimates)	2002-2004 total	
				Targets	Estimates
Capital expenditures	21.2	15.0	28.0	75.0	64.2
Chemicals & Plastics	12.4	7.8		37.0	
Fibers	4.5	4.0		24.0	
Specialty Products & Engineering	4.3	3.2		14.0	
Depreciation	15.3	15.8	15.5	53.0	46.6
Chemicals & Plastics	6.7	7.3			
Fibers	4.7	4.5			
Specialty Products & Engineering	3.9	4.0			
R&D expenses	10.8	11.1	10.5	32.5	32.4
Total debt	81.6	75.6	61.3	80.0	61.3
D/E ratio	0.61	0.52	0.4		

§ 1-4 Current situation of issues addressed

1. Refining our business portfolio management

- Investments of ¥40 billion in MMA and AN businesses
- Took steps to nurture Aqua-Sustainability Business into semi-core operations field through specialization in membrane products, including filtration modules, and sale of equipment
- Full-scale commercial market for Life Science Business products was slow to develop

By segment

- Business performance of Chemicals and Plastics surpassed targets
- Business performance of Fibers fell short of target, owing to failure to sufficiently solve structural problems
- Thanks to growth of sales of Information Materials and Carbon Fibers within the Specialty Products & Engineering segment, performance is thought to have attained the targets

2. Reform of earning and cost structures

- Achieved cost savings of ¥11 billion over three years (2002-2004) through operational restructuring plan

3. Strengthening R&D capabilities

- Improved selection of priority themes through use of the GKM statistical method

4. Raising level of environmental awareness

- Attained targets in energy conservation and reduction of industrial waste ahead of schedule. Target level for atmospheric emissions of toxic and harmful substances believed to have been reached in FY2004

§ 1-5 Refining our business portfolio management

1. Focused management resources on MMA Business Complex to boost its share of Asian market to No. 1, well ahead of competitions

Segment	Product	Subsidiary name	Capacity	Location	Operation start	Investment (US\$ million)
Chemicals & Plastics	MMA monomers	Thai MMA	70,000 90,000 t/year	Thailand	Dec. 2004	
	BMA		10,000 t/year		Jan. 2005	
	MMA monomers	Huizhou MMA	90,000 t/year	Huizhou, China	2Q/ FY2006	100
	DMF	Jiangsu Xinling Chemical	30,000 t/year	Changzhou, China	2Q/ FY2005	20
	Acrylic resin pellets	Nantong Rayon Chemical	40,000 t/year	Nantong, China	Dec. 2003	30
	Acrylic sheets	Mitsubishi Rayon Polymer Nantong	20,000 t/year	Nantong, China	3Q/ FY2005	30
	Coating resin		3,500 t/year		2Q/ FY2005	
	Prism sheets		12 million 30 million/year	Japan	Dec. 2004	

§ 1-5 Refining our business portfolio management

2. Investment of management resources to strengthen operational base of AN Business Complex

Segment	Product	Company name	Capacity	Location	Operation start	Investment (US\$ million)
Fibers	Acrylic fibers	Ningbo Rayon Acrylic Fibers	50,000 t/year	Ningbo, China	4Q/FY2005	100
Specialty Products, Engineering and Others	Carbon fibers	Grafil	1,500 2,000 t/year	U.S.A.	4Q/FY2005	
		SGL Technic	500 t/year	U.K.	1Q/FY2006	OEM

§ 1-6 Reform of earning and cost structures

Implementation of “JK 2004”-strengthening financial position

JK 2004

(¥ billion)

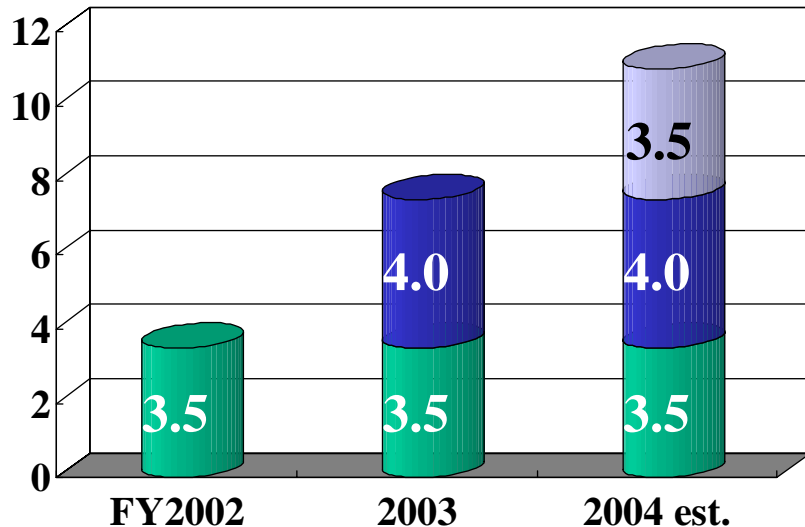
FY2002	FY2003	FY2004 (Estimate)	3-year total
3.5	4.0	3.5	11.0

Strengthening financial position

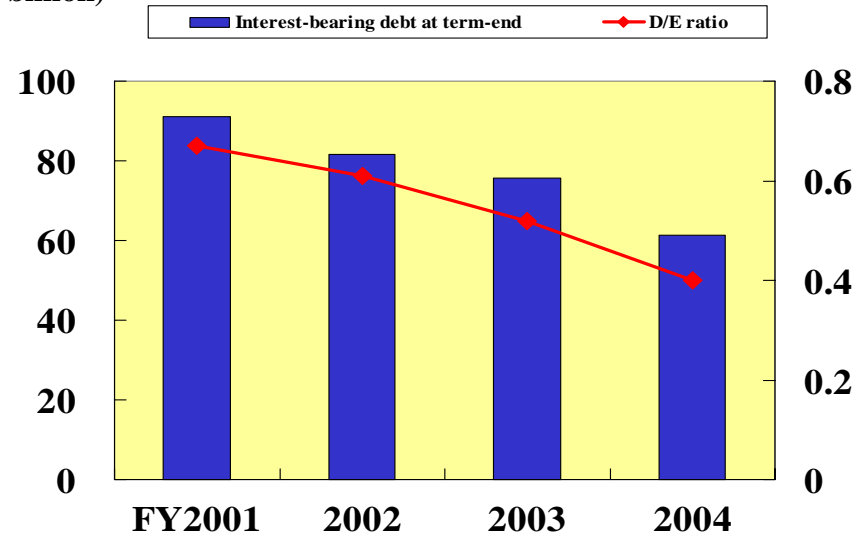
(¥ billion)

As of March 31	2002	2003	2004	2005
Interest-bearing debt	91.1	81.6	75.6	61.3
D/E ratio	0.67	0.61	0.52	0.4

(¥ billion)



(¥ billion)



§ 1-8 Raising level of environmental awareness

Environmental Action Plan (covering four production centers)

1. Energy saving		FY1990 =100	FY2002	FY2003	Target for FY2010
Energy source unit	(%)	100	91	88	90

2. Waste reduction		FY1990 =100%	FY2002	FY2003	Targets for FY2010
Landfill (Except combustion ash emitted by power generators)	(t/year)	10,900	4,200	3,500	2,700
	(%)	100	39	32	25

3. Air pollutant emission reduction		FY 1999	FY 2002	FY 2003	Targets for FY2007
Acrylonitrile	(t/year)	100	57	57	24
Butadiene		123	33	14	10
Methylene chloride		54	45	41	37
Ethylene oxide		17	1	1	1
Acetaldehyde		16	12	9	6
Dimethylform-amide(self-regulated)		156	166	140	91

The Fifth Medium-Term Management Plan Overview

§ 2 The Fifth Medium-Term Management Plan Overview

2-1 Basic management policies

2-2 The Outline and the Mission

2-3 Numerical Targets

2-4 Business Structure

2-5 Issues Addressed

§ 3 The Fifth Plan by Segment

3-1 MMA Business Complex

3-2 AN Business Complex

§ 4 Strengthening Our Competitiveness

§ 5 Establishment of New Businesses

§ 6 Return to Shareholders

§ 7 For Further Growth

§ 2-1 Basic management policies

Basic management stance remains unchanged

Management philosophy

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

“Best Quality for a Better Life”

Strict implementation of principles of corporate ethics, legal compliance, and risk management

Priority-focused management of each operational segment

§ 2-2 The Outline of the plan

Aiming to realize high-earnings, strong-growth Mitsubishi Rayon Group “US 2007” —Focus & expand—

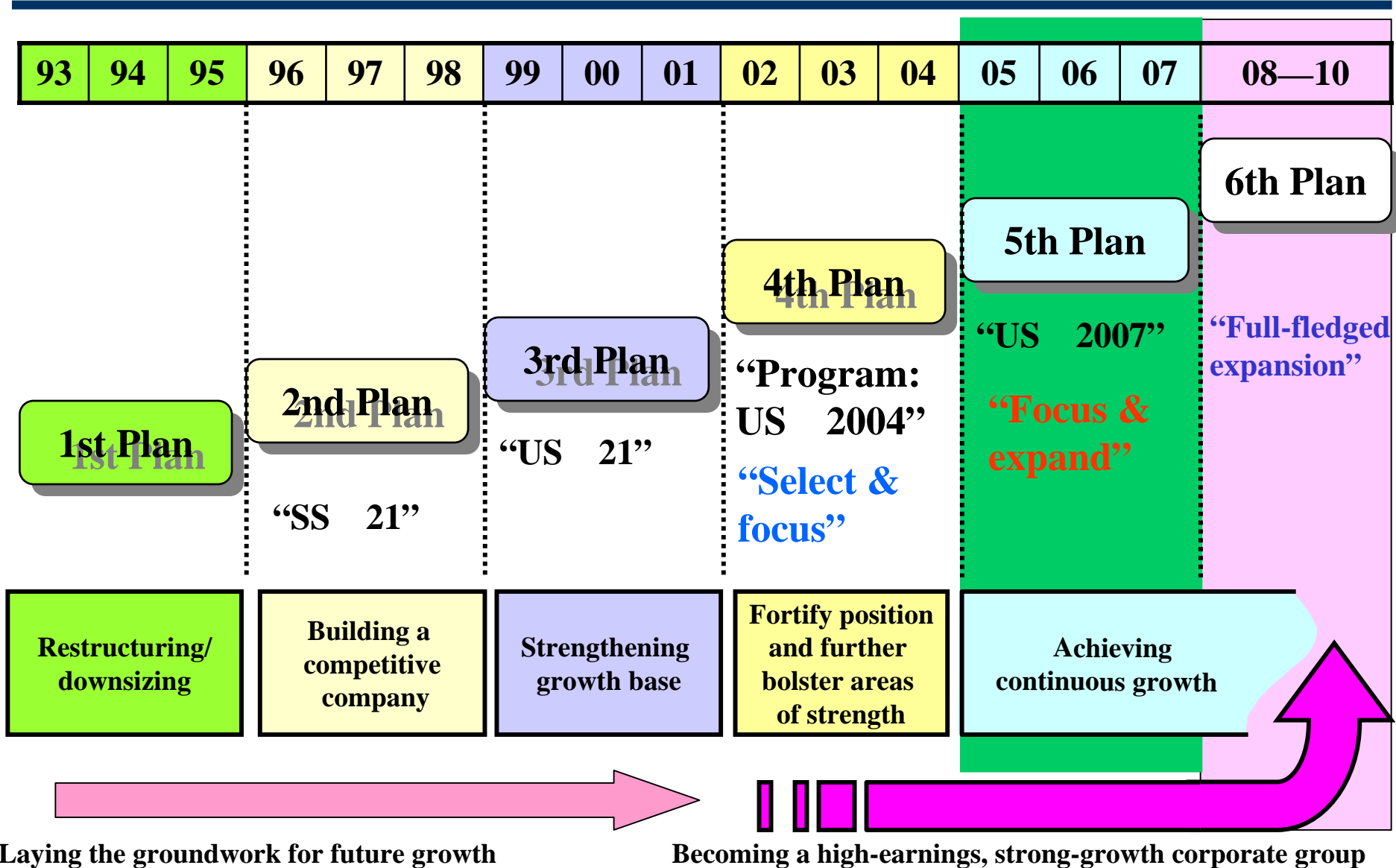
Period: FY2005—2007

Mission: Achieving continuous growth

Issues addressed:

- Accelerating the growth of MMA, AN Business Complexes
- Ongoing initiatives aimed at strengthening competitiveness
- Establishment of new businesses

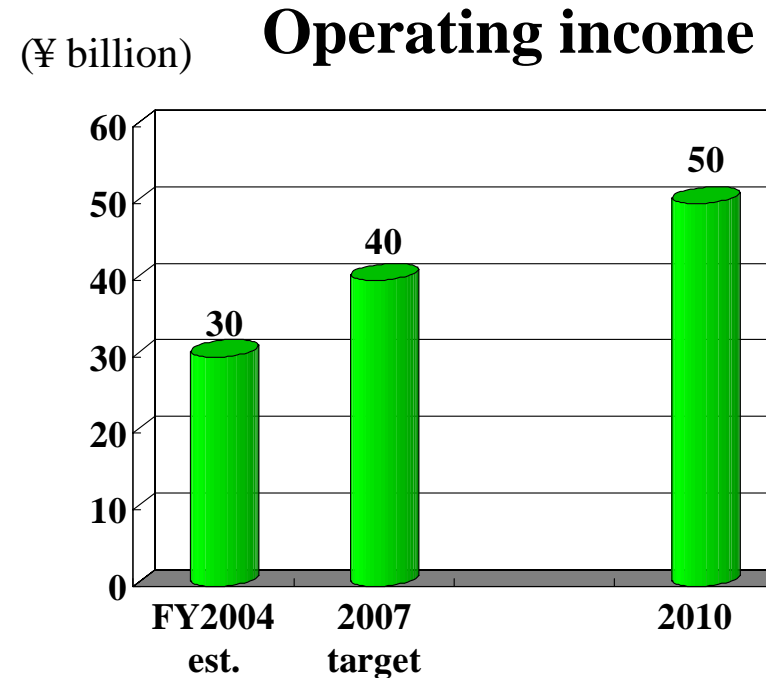
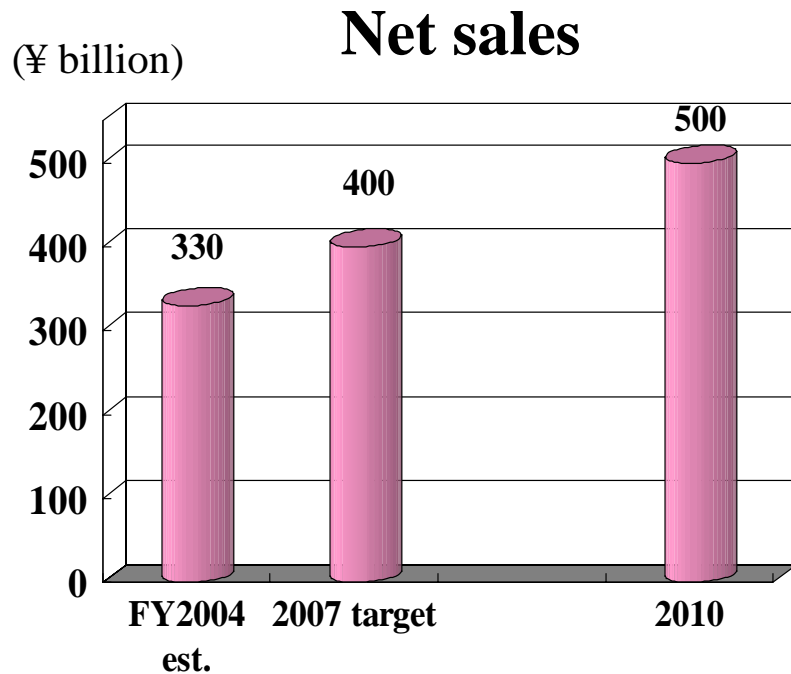
§ 2-2 Mission



§ 2-3 Numerical targets

Net sales and operating income

< Assumption > Exchange rate = @105 ¥/US\$,
Domestic naphtha price = ¥36,000 / KL



§ 2-3 Numerical targets

Sales/operating income by segment

(¥ billion)

	Net sales		Operating income	
	FY2004 (Estimates)	FY2007 (Plan)	FY2004 (Estimates)	FY2007 (Plan)
Chemicals & Plastics	153.0	205.0	21.5	29.5
Fibers	90.0	90.0	3.0	4.0
Specialty Products, Engineering and Others	87.0	105.0	5.5	6.5
Total	330.0	400.0	30.0	40.0

Notes:

1. With effect from FY2005, the Information Materials Business was transferred from the Specialty Products & Engineering segment to the Chemicals & Plastics segment. The targets for FY2007 were made after this transference.
2. Assumption for FY2007: Exchange rate = @105¥/US\$ Domestic naphtha price = ¥36,000/KL

§ 2-3 Numerical targets

Expenses

(¥ billion)

	FY2002—2004 (Estimates)	FY2005—2007 (Plan)
Capital expenditure	64.2	65.0
Depreciation	46.6	55.0
R&D expenses	32.4	35.0

§ 2-4 Business structure

(¥ billion)

Segment	MMA Business Complex	AN Business Complex	Non-Acrylic Business	Net sales (Note 1)	Operating income (Note 1)
Chemicals & Plastics	MMA monomers, higher esters, PMMA (pellets/sheets), coating resins, plastic modifiers, prism sheets, optical fibers, rod lenses	Hydrogencyanide derivatives (chelating agents) (AN monomers, flocculants (Note 2))	Methylamine, polyester resins	205.0	29.5
Fibers		Acrylic fibers	Textiles	90.0	4.0
Specialty Products, Engineering and Others		Carbon fibers and composite materials	Water purifiers, water treatment equipment and systems, plant engineering	105.0	6.5
	185.0 (Note 3)	75.0 (Note 3)	140.0 (Note 3)	400.0	40.0

Notes:

1. Targets for fiscal 2007
2. Manufactured by equity-method affiliates
3. Net sales by each business

§ 2-5 Issues addressed

1. Accelerating the growth of MMA and AN businesses

2. Ongoing initiatives aimed at strengthening competitiveness

3. Establishment of new businesses

Accelerating the growth of MMA Business Complex

- **Becoming the world's No. 1 MMA supply chain in both operational scale and profitability** —
 - **Plants in which investments in production facility expansion have already been made will go into fullscale operation right from the start, thus contributing to earnings**
 - **Drawing plans for new MMA plants**
 - **Doubling production capacity of MMA polymer at plants in East Asia**
 - **Developing new functional chemicals**
 - **Information Materials business to boost production capacity of prism sheets**

§ 3-1 MMA Business Complex -Chemicals & Plastics-

Early realization of profitability from facility investments already made

Product	Projects invested in during FY2002-2004			Total capacity of the Group	
	Capacity	Operation start	Location	Fiscal 2004	Fiscal 2007
MMA monomers	70,000 90,000 t/year	Dec. 2004	Thailand	307,000 t/year	397,000 t/year
	90,000 t/year	2Q/ FY2006	Huizhou, China		
BMA	10,000 t/year	Jan. 2005	Thailand	20,000 t/year	30,000 t/year
Acrylic resin pellets	40,000 t/year	Dec. 2003	Nantong, China	99,700 t/year	99,700 t/year
Acrylic sheets	20,000 t/year	3Q/ FY2005	Nantong, China	48,600 t/year	68,600 t/year
Coating resin	3,500 t/year	2Q/ FY2005	Nantong, China	47,400 t/year	50,900 t/year
Prism sheets	12 million 30 million/year	Dec. 2004	Japan	30 million/year	30 million/year
Total sales of Chemicals and Plastics				¥153.0 billion	¥205.0 billion

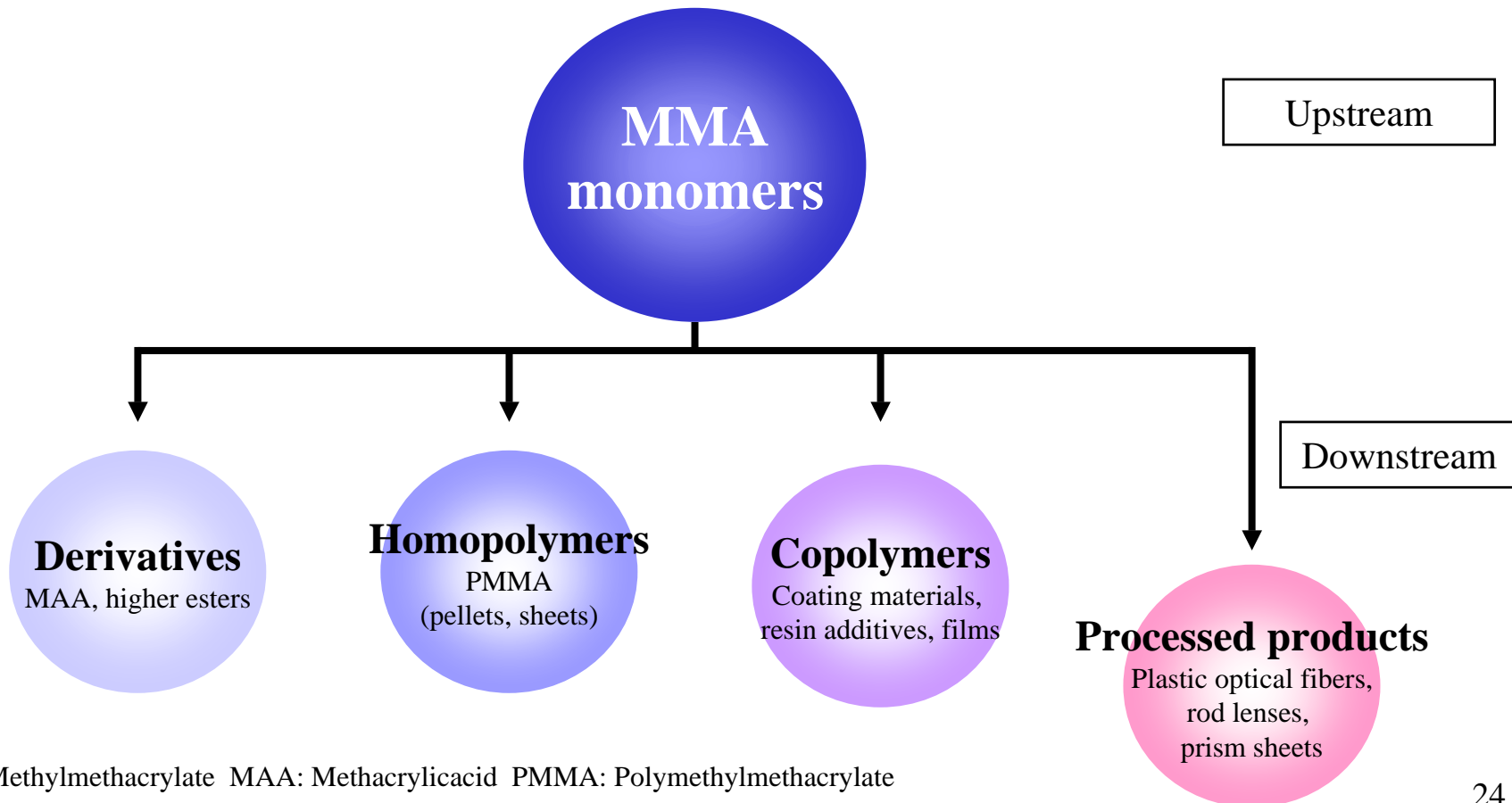
§ 3-1 MMA Business Complex -Chemicals & Plastics-

Further expansion of MMA Business Complex

Product	Candidate site	Capacity	Operation start	Investment (US\$ million)
MMA monomers	U.S.A.	150,000 t/year	2008—2010	150 or more
Acrylic resin pellets	China	40,000 t/year	2008—2010	30
Acrylic sheets	China, ASEAN countries	20,000 t/year	2008—2010	30
Prism sheets	Japan	15 million/year	2007—2008	

§ 3-1 MMA Businesses Complex -Chemicals & Plastics-

Integrated production line from monomers through polymers to derivatives and processed products



MMA: Methylmethacrylate MAA: Methacrylicacid PMMA: Polymethylmethacrylate

§ 3-1 MMA Businesses Complex -Chemicals & Plastics-

Growing MMA monomer market in Asia

2004

Europe
Demand: 640,000 t
Capacity: 750,000 t

Asia (mainly China and Japan)
Demand: 1,100,000 t
Capacity: 1,105,000 t

U.S.A.
Demand: 780,000 t
Capacity: 920,000 t

2007

Europe
Demand: 670,000 t
Capacity: 750,000 t

Asia (mainly China and Japan)
Demand: 1,300,000 t
Capacity: 1,400,000 t

U.S.A.
Demand: 830,000 t
Capacity: 920,000 t

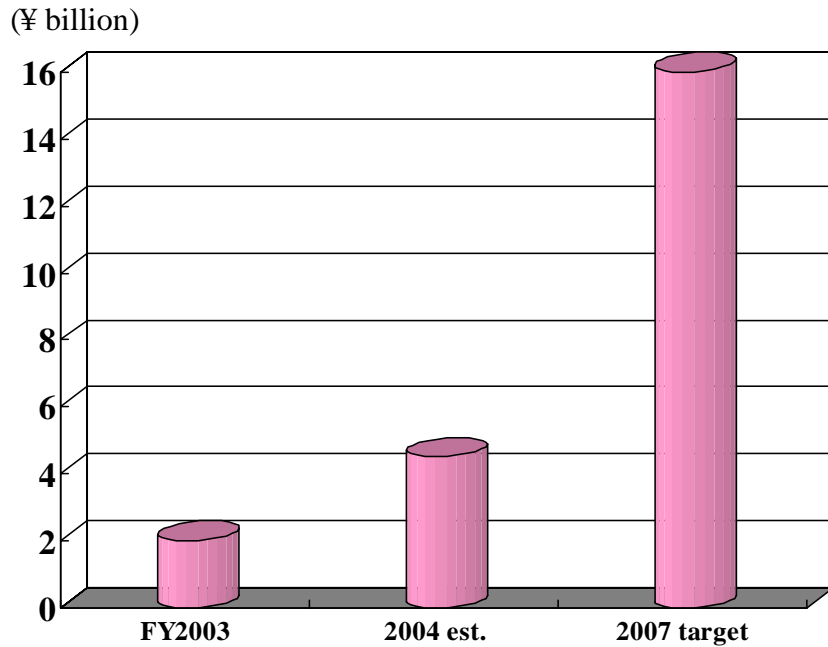
Pursuing growth in optical technology & image display materials

- 1. Focused investment of resources in prism sheets with goals of further growth in operational scale and earnings**
- 2. Prism sheet production capacity to be increased 50% by 2007**
- 3. Accelerated expansion of plastic optional fiber for vehicle in use in U.S.A. and East Asia**
 - Market share of 80% or more targeted in Europe; aiming at adoption in 20 or more vehicle models**
 - Targeting adoption in US and East Asian vehicle models**
- 4. Planning to expand sphere of business into areas peripheral to image display materials**

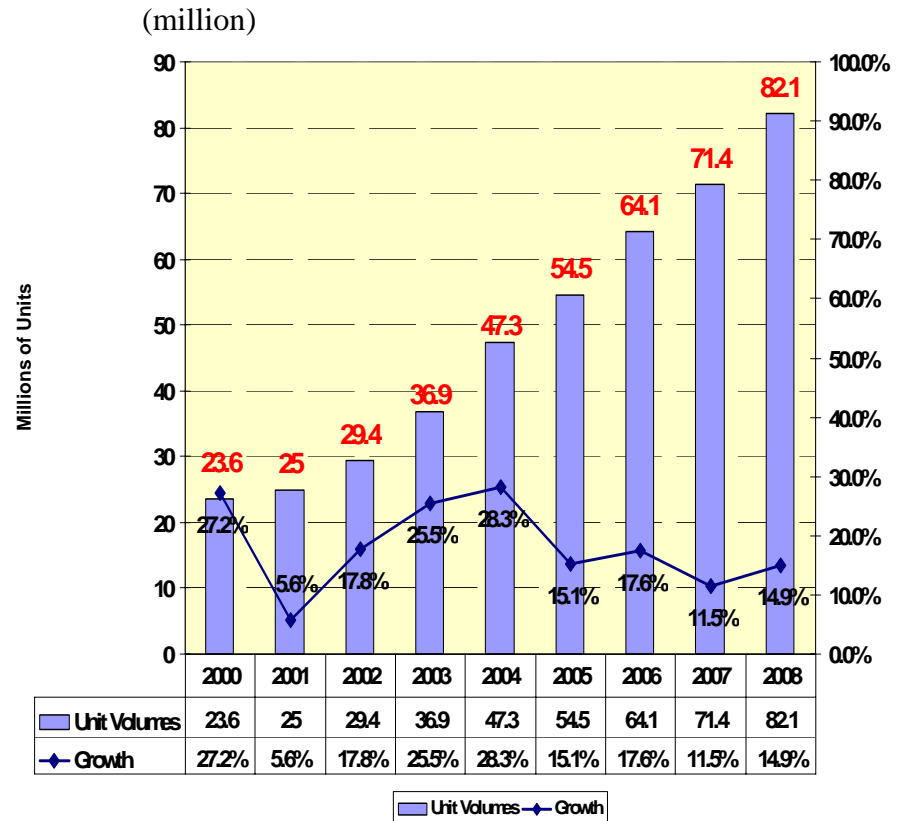
§ 3-1 MMA Businesses Complex -Information Materials-

Sales plan for prism sheets and laptop computer demand forecast

Sales plan for prism sheets



Laptop computer demand forecast



§ 3-2 AN Business Complex -Acrylic Fibers-

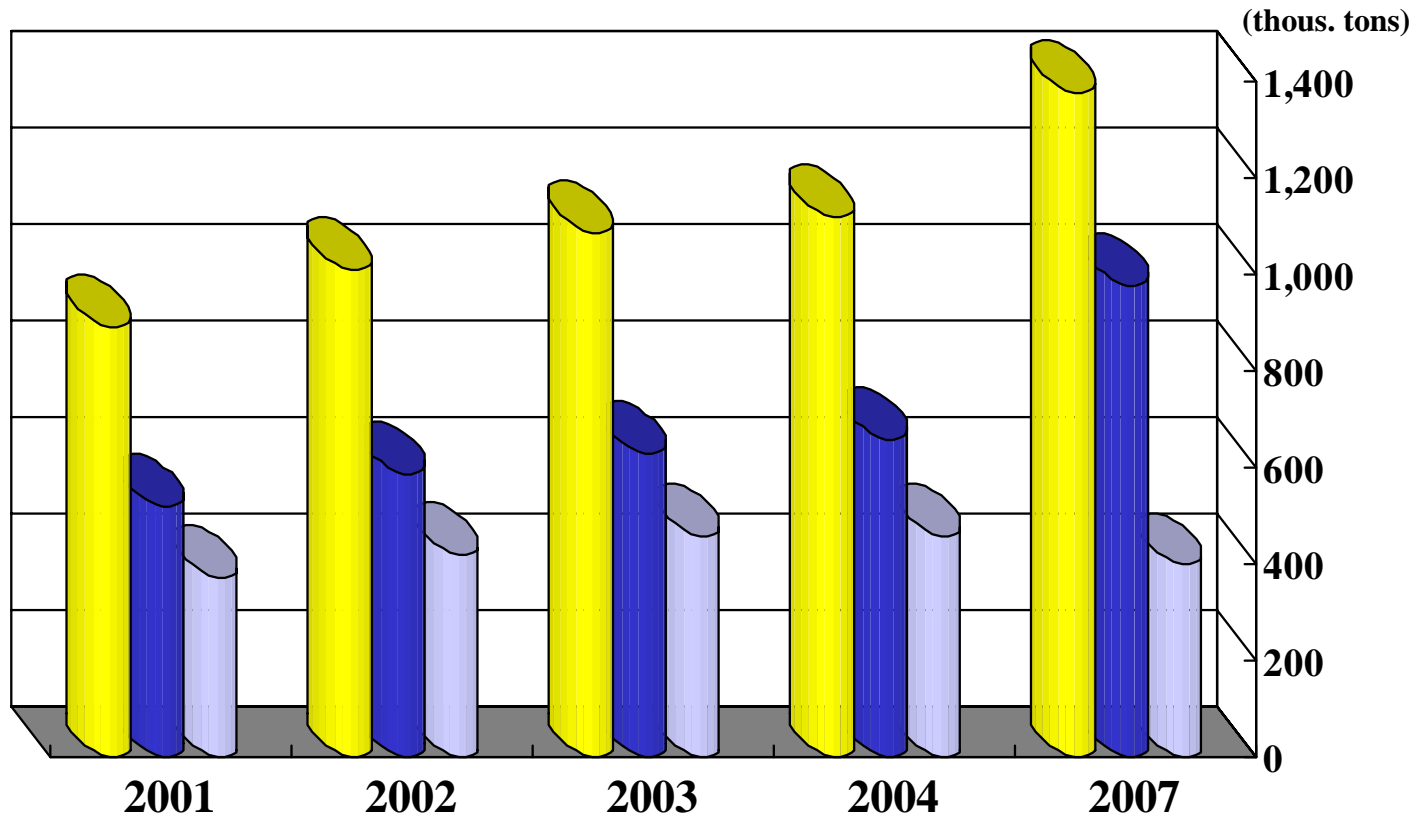
Grabbing the No.1 positions in East Asia in both earnings and operational scale

- 1. Achievement of greater earnings stability through radical operational restructuring**
 - **More effort to sell raw fiber in overseas growth markets**
 - **Radical measures to turn around low-profit group companies**
- 2. Ningbo Rayon Acrylic Fibers expected to begin fullscale operations right from the start, making an immediate contribution to earnings**
- 3. Production capacity of Ningbo Rayon Acrylic Fibers to be doubled from 50,000 to 100,000 tons**

§ 3-2 AN Business Complex -Acrylic Fibers-

Growing Chinese market —demand for acrylic fibers—

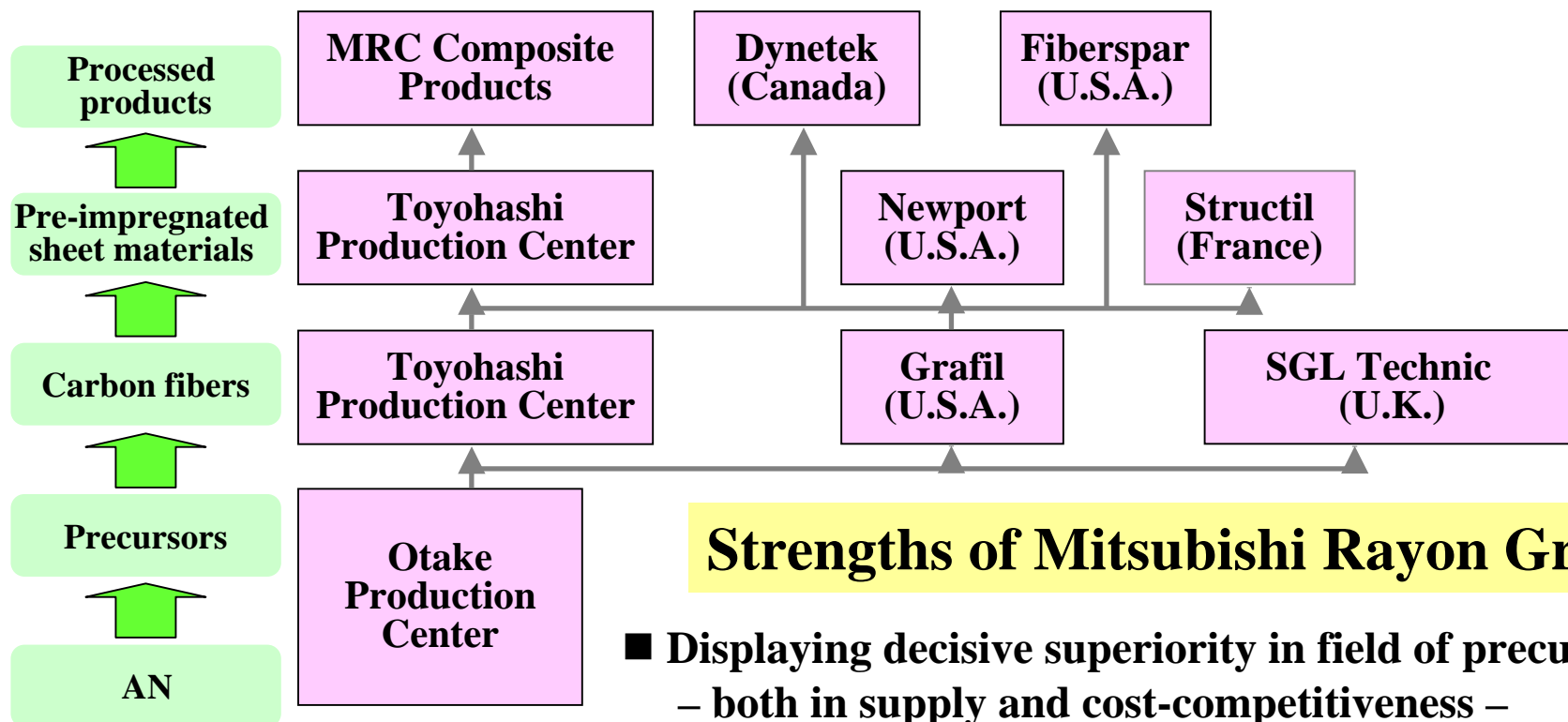
■ Total demand ■ Production in China ■ Imports



Creating a competitive and distinctive Carbon Fibers and Composite Materials Business

- 1. Optimally utilizing our strengths in the supply of precursors, cost competitiveness & product development**
- 2. Bringing new products to market by 2006**
- 3. Expanding into field of high-value-added materials such as aircraft materials and parts**
- 4. Cost reductions through adoption of advanced production technology**

Flow of Carbon Fibers & Composite Materials Business



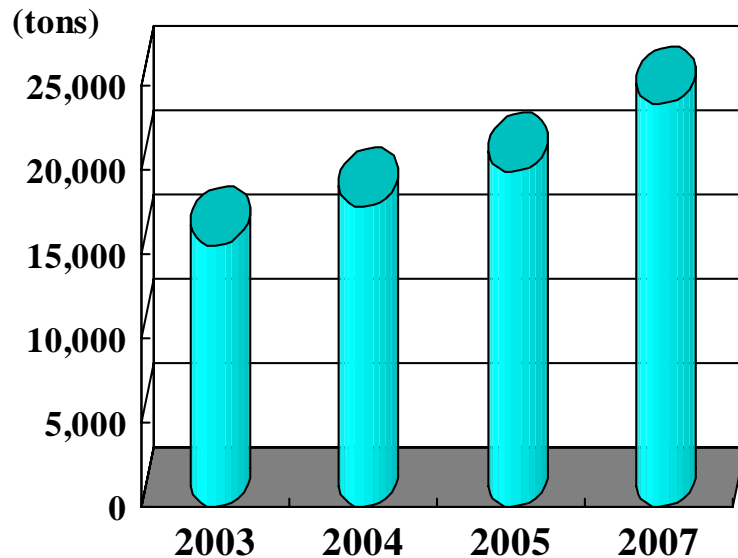
Strengths of Mitsubishi Rayon Group

- Displaying decisive superiority in field of precursors – both in supply and cost-competitiveness –
- Creating integrated production system from precursors to end-products

-Carbon Fibers & Composite Materials-

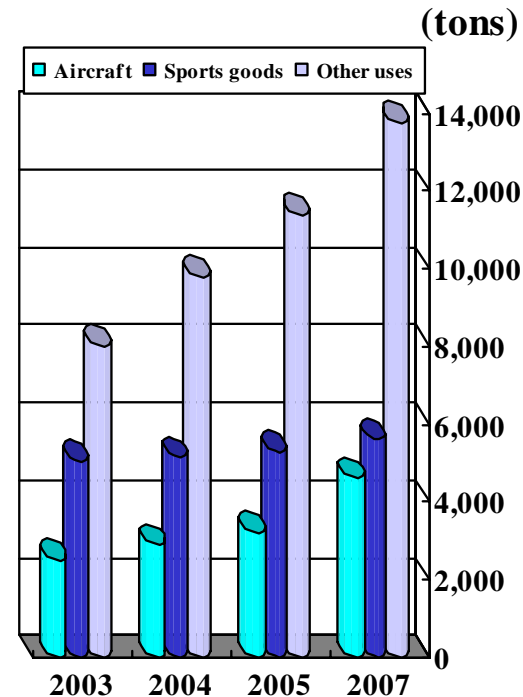
Demand to grow as sphere of applications expands

Demand for carbon fibers



(Our estimation)

Demand by use



(Our estimation)

§ 3-2 AN Business Complex

Early realization of profitability from facility investments already made

Product	Projects invested in during FY2002-2004			Total capacity of the Group	
	Capacity	Operation start	Location	Fiscal 2004	Fiscal 2007
Acrylic fibers	50,000 t/year	4Q/FY2005	Ningbo, China	132,000 t/year	182,000 t/year
Carbon fibers	1,500 t/year 2,000 t/year	4Q/FY2005	U.S.A.	4,700 t/year	5,700 t/year
	500 t/year	1Q/FY2006	U.K.		
Total sales of AN Business Complex				¥65.0 billion	¥75.0 billion

§ 3-2 AN Business Complex

Strengthening AN Business Complex

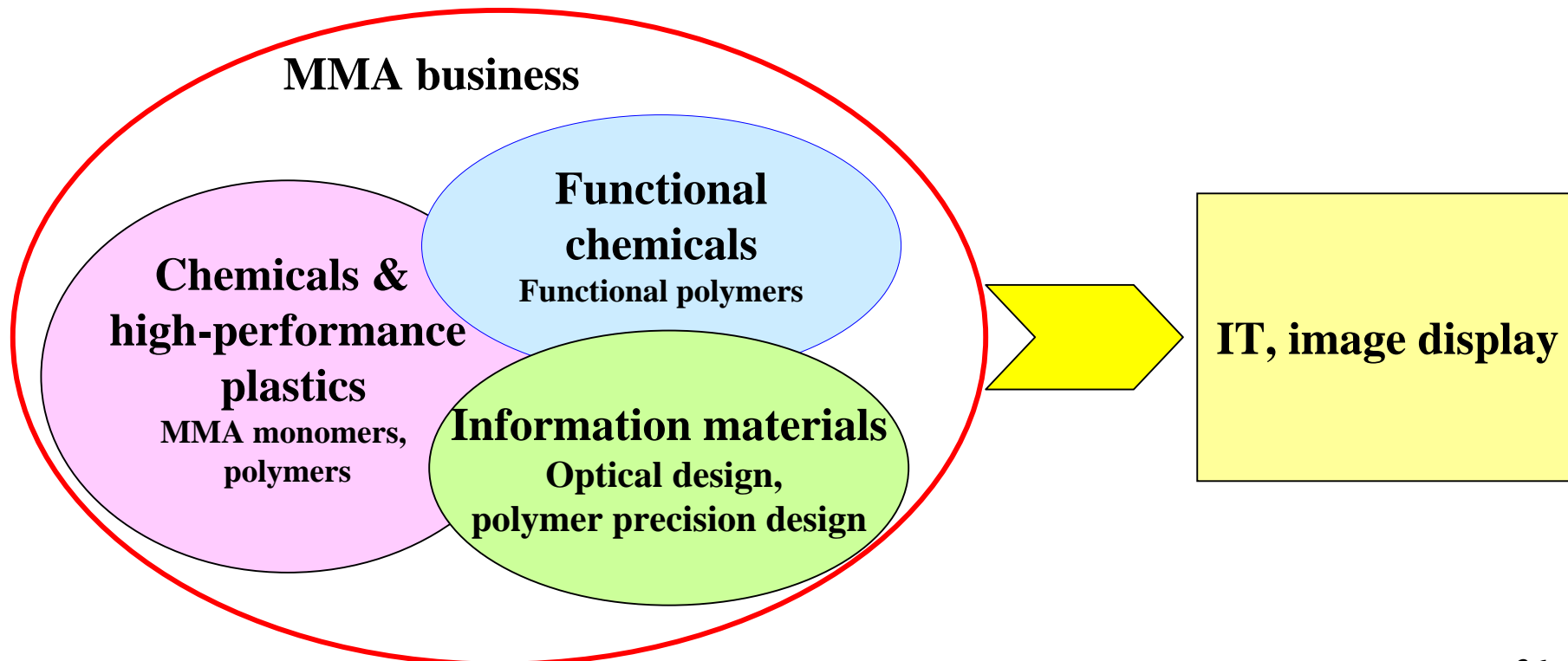
Product	Candidate site	Capacity	Operation start	Investment (US\$ million)
Acrylic fibers	China	50,000 t/year	2008	100
Carbon fibers	Japan	2,000 t/year	2007—2008	

Cost savings of ¥10 billion over the next three years

- **Introducing advanced production technology & redesigning our production systems**
- **Business process reengineering of the product lineup & inventory management**

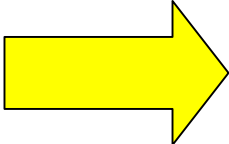
1. Expanding operational reach of core business

MMA business: Expanding sphere of business into areas peripheral to image display materials



2. Next-generation core businesses

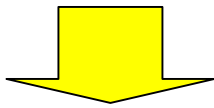
**Creation of new core
business fields for
2010-2015 period**



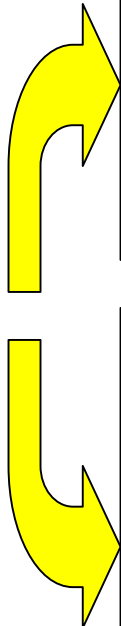
- 1. Expanding range of applications for our proprietary technologies
ex: biological catalyst technology**
- 2. Using GKM Method of statistical analysis to prioritize our research themes, allowing continuous efficient allocation of management resources**

Increasing earning through “focus & expand” strategy, leading to improved profit distribution to shareholders

Implementation of the 5th plan



Pushing up ratio of operating income to sales through “focus & expand” strategy
Target for FY2007: 10% or more



Thorough efforts to strengthen core businesses and expand their sphere of operations, to yield enhanced enterprise value

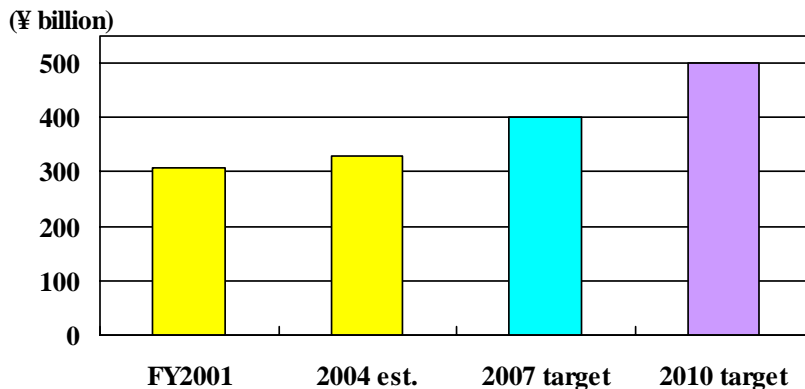
Appropriately determining dividend payments under policy of distributing profit to shareholders

Aiming at per-share dividend of ¥10 or more by FY2007

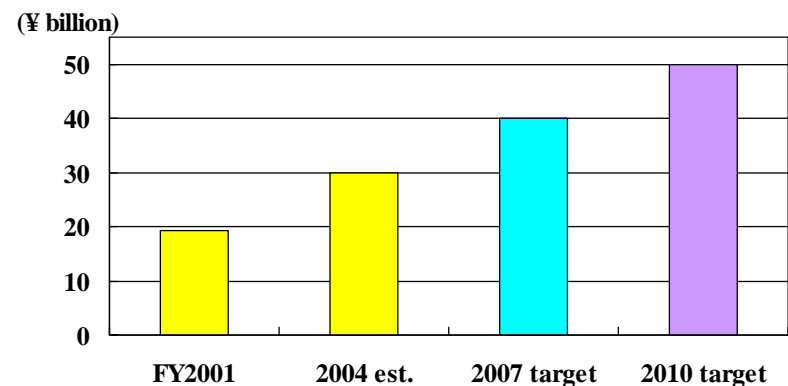
§ 7 Numerical targets for 2010

- Becoming the world's No.1 MMA Business Complex by 2010 in net sales and operating income
- Numerical targets
 - Total sales of the Group—¥500 billion
 - Operating income—¥50 billion

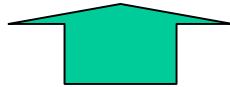
Net sales target



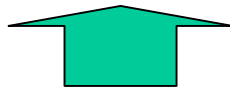
Operating income target



Best Quality for a Better Life



Realizing high-return, high-growth
Mitsubishi Rayon Group



Expanding the operational sphere of our business
segments, which boast unique specialties and excellent
product quality

**Boldly carrying out action plans without
changing our basic management stance**

Attention regarding forward-looking statements

The reader is advised that this report contains forward-looking statements, including forecasts of business performance, as well as operational plans and targets. These statements are based on information available to the Company's management as of the time of writing. Actual results may therefore differ substantially from such statements, owing to factors that are unforeseeable and/or beyond the control of the Company.