

The TORAY logo is displayed in a bold, blue, sans-serif font. The letters are slightly shadowed, giving it a three-dimensional appearance. The background of the entire slide is a light blue gradient with a faint, complex network of white chemical structures, including various rings, lines, and functional groups like COOH, OH, and COCl.

Innovation by Chemistry

# Mid-term Business Strategies Project “Innovation TORAY 2010”

November 8, 2006

**Sadayuki Sakakibara, President  
Toray Industries, Inc.**

# Road Map to IT-2010 and Targets in IT-2010

April 2002

April 2006

Long-term vision

AP-New TORAY 21

AP-Innovation TORAY 21

Midterm Business Strategies

“NT21”

「Corporate Structure Reinforcement - defensive management postures」

-Breakaway from Crisis -

“NT- II”

「Offensive management postures」

-Establish foundation for further growth -

“IT-2010”

「Management based on Innovation and Creation」

-Challenges for further growth -

Toward a Global Top Company of Advanced Materials

Goals in and around 2010

Net sales  
¥1,800 billion

Operating income  
¥150 billion

Operating income to net sales ratio  
8.3%

ROA : 8%

ROE : 11%

2002  
April

2004  
April

2006  
October

Around  
2010

# Basic Strategies (1. Transformation to a highly profitable business group)

1. Transforming to a highly profitable business group

Transform to a highly profitable business group while continuing business expansion

- 1. 5% annual growth in net sales
- 2. 10% annual growth in operating income

} → **“5-10 Growth Plan”**

Improving capital efficiency

- 1. ROA : over 8% ROE : over 11% around 2010

2. Expanding Strategically Expanding Businesses (profit growth driver)

Increase profit by expanding Strategically Expanding Businesses (IT-related products and Carbon Fiber Composite Materials) while securing stable profit by Foundation Businesses

3. Expanding Strategically Developing Businesses (next profit growth driver)

Develop strategically next generation profit growth driver businesses after 2010 (Life Science, Water Treatment, Environmental friendly businesses)

4. Advancing business structure reform

Advance business structure reform by expanding Strategically Expanding Businesses and Strategically Developing Businesses

- 1. Double net sales in Strategically Expanding Businesses and Strategically Developing Businesses around 2010
- 2. Expand their ratio of net sales from the current 25% to 40% around 2010

5. Expanding advanced materials

Expand advanced materials sales in every segment and increase their ratio of net sales

- 1. Double net sales in advanced materials around 2010
- 2. Expand their ratio of net sales from the current 30% to 50% around 2010

# Basic Strategies (2. Expansion of advanced materials in 4 major growing business fields)

**Aim for business expansion mainly in advanced materials by providing cross-organizational solutions to the 4 major growing business fields.**

## 1. Information / Telecommunications / Electronics

- Business expansion in the growing market of digital network-related products markets including flat panel display televisions, cellular phones, and personal computers
- Development and sales expansion of innovative products through vertical business integration with key customers
- Strengthen competitiveness through integrated operations from plastic/films materials to components

## 2. Automobiles / Aircrafts

- Development of products to meet expanding markets in hybrid cars and car electronics
- Expansion of application parts by widening advanced functional availability of carbon fiber composite materials and engineering plastics
- Aggressive capacity expansion to meet the growing demand for carbon fiber composite materials

## 3. Life Science

- Conclusive launch of new drugs which is under development and further expansion of new drug pipelines
- Development and commercialization of high value-added medical devices
- Creation of innovative bio-tools through bio/nano-technological integration

## 4. Environment / Water-related / Energy

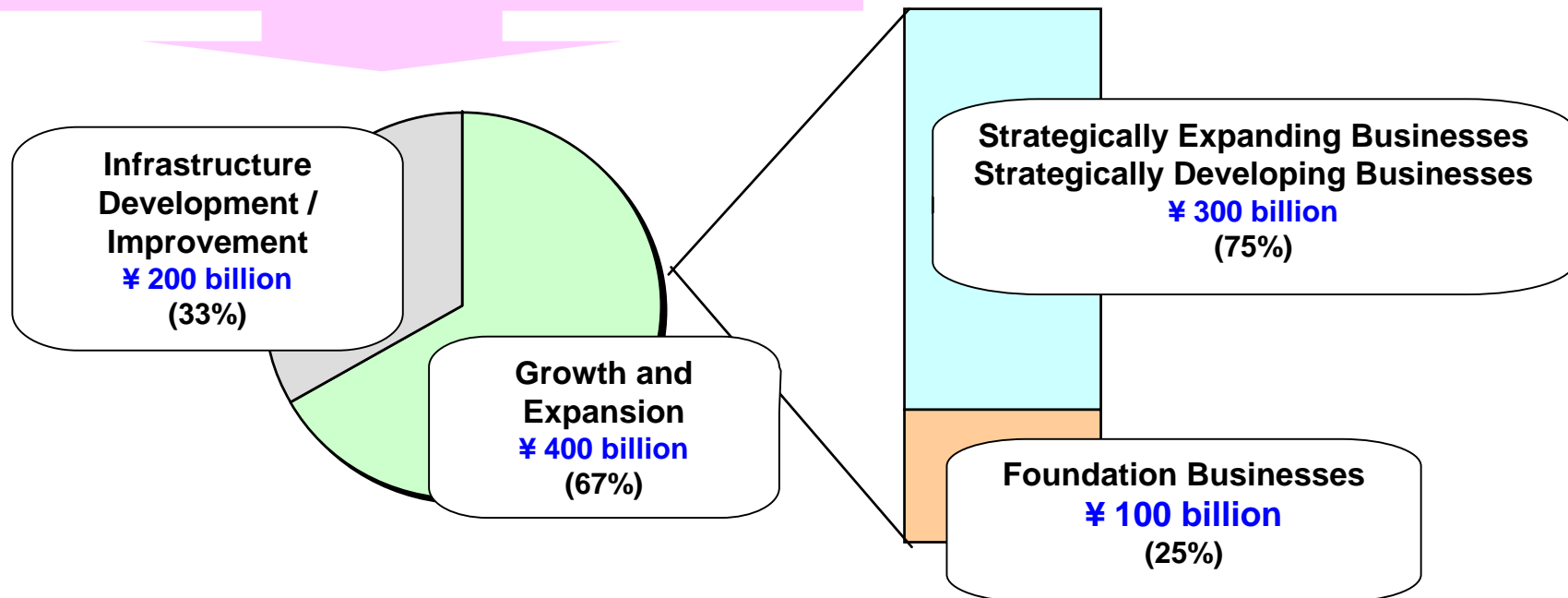
- Development of new applications for fibers & textiles, plastics and films using such non-petrochemical raw materials as polylactic acids
- Global expansion of water treatment businesses with a core of high-performance separation membranes
- Development of new materials for next generation energy systems including solar cells, fuel cells, and wind power generation

# Capital Expenditures Strategies

(intensive allocation for Strategically Expanding / Developing Businesses)

- **¥ 600 billion** of capital investments planned **in 5 years** from FY 2006
- Additional **excluding M&A investment funds** will be invested if strategic decisions are made
- Allocation of capital expenditures to **expanding businesses** will be **¥400 billion (2/3)**
- Out of capital expenditures to expanding businesses, **¥300 billion (3/4)** will be allocated to **Strategically Expanding and Developing Businesses**

**¥600 billion yen of capital expenditures in 5 years**



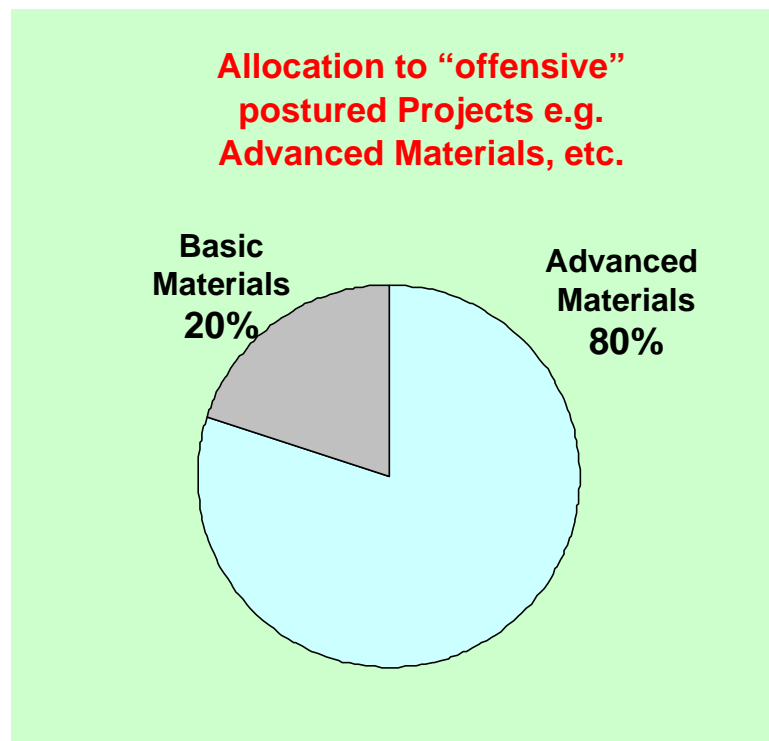
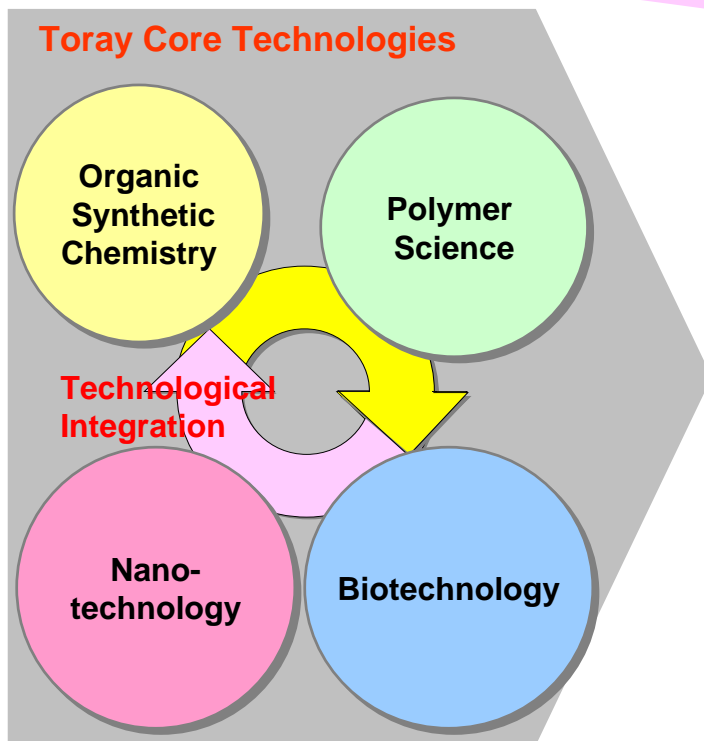
(\*) Infrastructure development / improvement = environment, safety, accident prevention, optimization of head count, rationalization, preservation expenditures, etc.

# R&D Investment Strategies

(intensive allocation for Advanced Materials)

- ¥ 240 billion of R&D investment planned in 5 years from FY 2006
- Allocate approx. 80% of R&D resources to Advanced Materials in order to accelerate "Innovation"
- Strengthen intellectual property capabilities and strategically acquire the rights of R&D investment achievements

¥ 240 billion of R&D investment in 5 years



# Eight Projects in Five Innovations

## Five Innovations

## Eight Projects

## Major Issues

**1. Innovation of business structure**

**(1) Business structure innovation**

Transformation to a highly profitable group by innovative business portfolio change

**(2) Overseas business strengthening**

Enhancement of overseas business profitability and expansion of its business

**(3) Advanced material businesses expansion**

Rapid commercialization of new advanced materials

**(4) R&D capabilities innovation**

Continuous generation of large-scale R&D themes

**(5) Manufacturing technology innovation**

Generation of world-leading quality with the lowest costs in the world

**(6) Cost innovation**

Cost reduction for intensified profitability

**(7) Marketing and sales innovation**

Thorough implementation of customer-orientated, proactive marketing and sales

**4. Innovation of business-awareness**

**(8) Corporate brand strengthening**

Increase of the value of the corporate brand

**5. CSR Innovation**

Promoting CSR implementation, strengthening security trade administration, and establishing and using internal controls systems

# 1. Business Structure Innovation

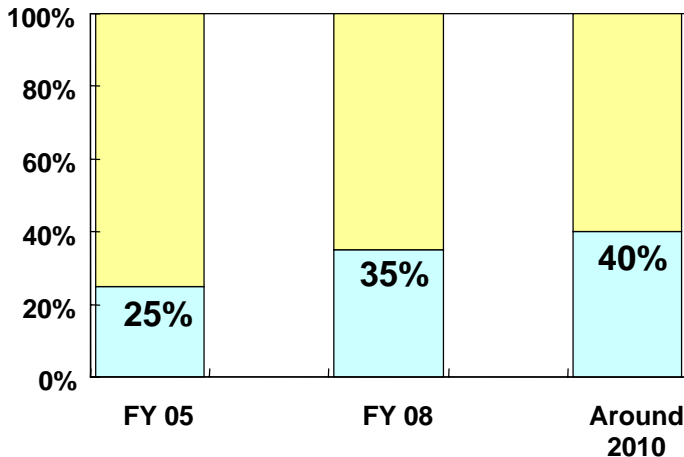
## Issues and Responses

1. Transform the business portfolio; create and expand profitable, high-growth potential businesses
2. Strategically allocate management resources (human resources and capital investment)
3. Promote new, large-scale businesses in the four major growing business fields
4. Take actions regarding problem businesses (analyze and pick up low growth and low profitability businesses)
5. Move forward with major M&A

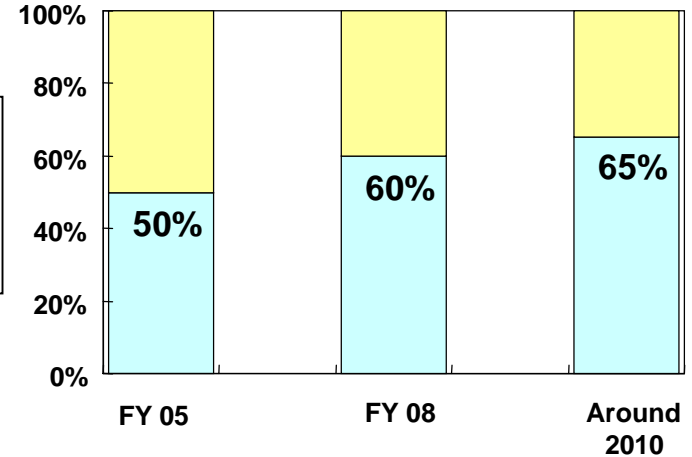
## Targets

1. Transform to a highly profitable business group : “5-10 Growth Plan”
2. Expand ratio of net sales and operating income of Strategically Expanding/Developing Businesses respectively
3. Generate new large-scale businesses in 4 major growing business fields

<Strategically Expanding/Developing Businesses to Net Sales>



<Strategically Expanding/Developing Businesses to Operating Income>





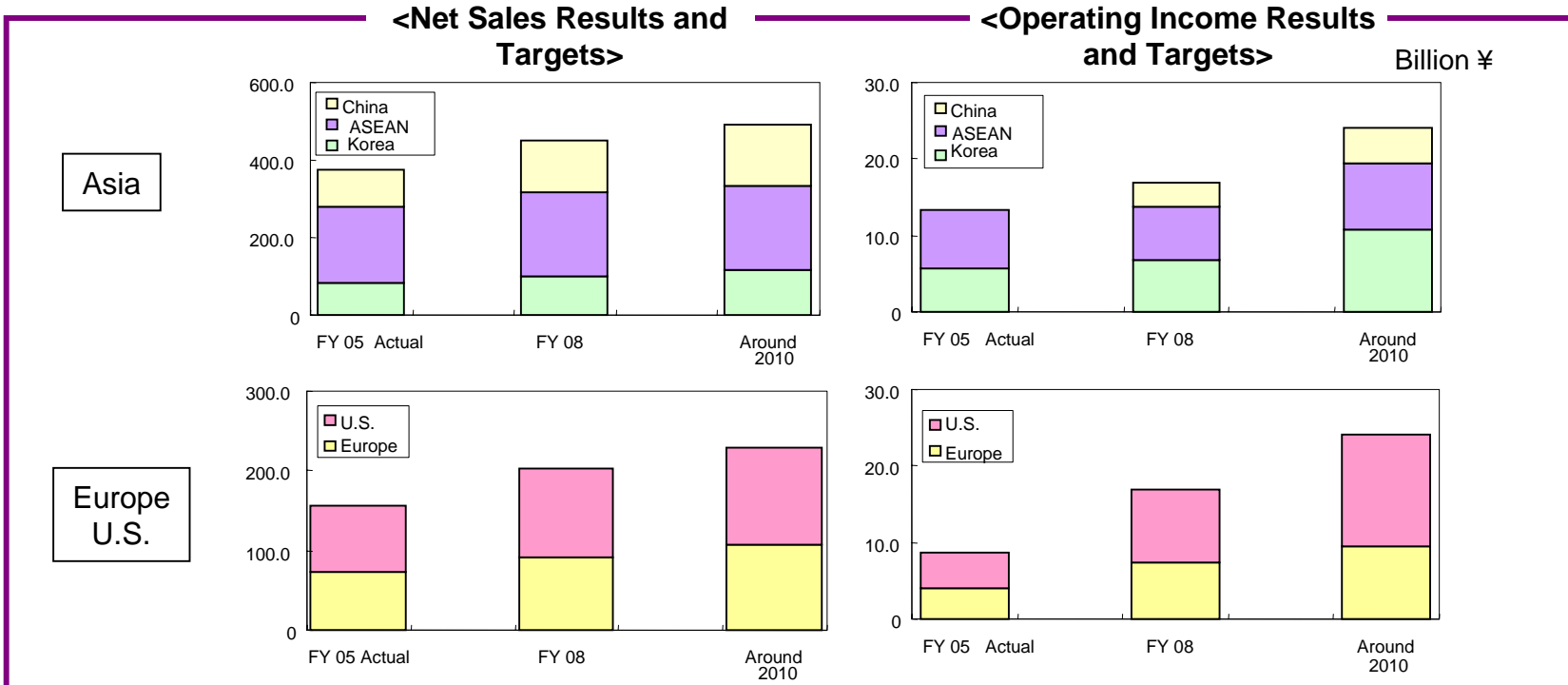
# 2. Overseas Business Strengthening

## Issues and Responses

1. Move forward with programs to expand strategic businesses in China, Korea, Europe, and the U.S.
2. Reorganize, consolidate, and implement measures to bring unprofitable operations into the black at overseas businesses and subsidiaries
3. Expand businesses in new markets and new areas

## Targets

1. Expand operating income at all overseas subsidiaries
2. Move into the black at all overseas businesses and subsidiaries by reorganization and consolidation of unprofitable businesses



# 3. Advanced Material Businesses Expansion

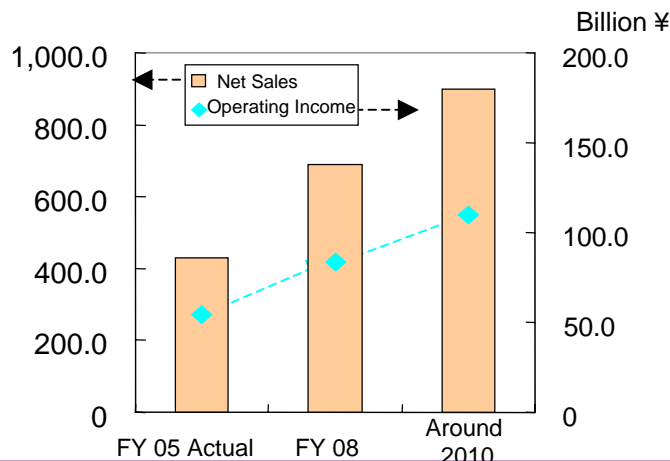
## Issues and Responses

1. Move forward with technology development strategies consistent with the Group's business strategies and clarify success indicators
2. Strengthen product commercialization capabilities
3. Expand businesses in new markets and new areas

## Targets

1. Expand net sales and operating income of advanced materials
2. Increase numbers of new products, its sales, and sales ratio
3. Increase numbers of commercialized cases of Advanced Materials Projects and Developing Projects
4. Increase technological licensing revenues
5. Acquire approval of pharmaceutical pipelines as planned

<Net Sales/Operating Income of Advanced Materials



<Sales Expansion of New Products(\*)>

Increase sales of new products by **1.8 times** around 2010 from FY 2005

### Examples of New Products

**PLA**  
**High-performance optical films**  
**Carbon fiber composite material products**  
**High-performance membranes for seawater desalination, etc.**

(\*) definition : products commercialized within 3 years

# 4. R&D Capabilities Innovation

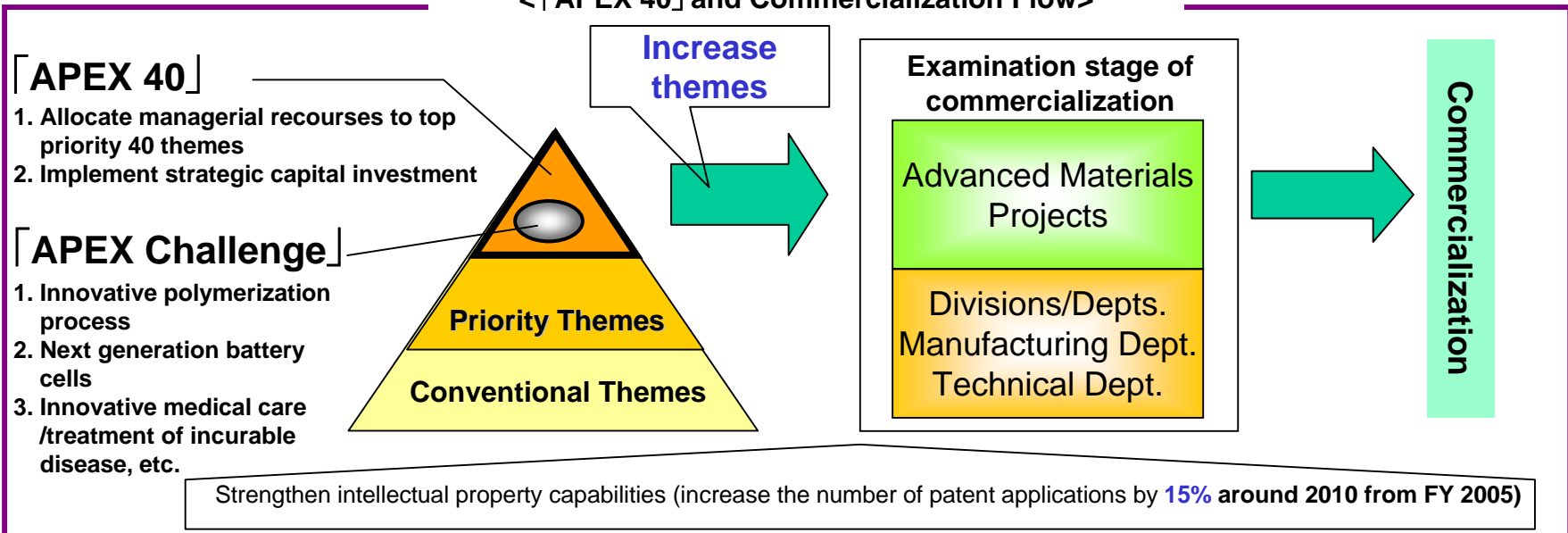
## Issues and Responses

1. Select strategic focus more intensively  
 → allocate managerial resources to 「APEX 40 (top priority 40 themes)」 and promote themes which have impact on management by working on challenging issues as 「APEX Challenge」
2. Generate next large-scale R&D themes
3. Strengthen research and technological foundation (capabilities in fundamental technologies, intellectual property, etc.)

## Targets

1. Increase numbers of themes which advance to examination stage from 「APEX 40」, R&D top priority themes
2. Increase numbers of patent application (target 15% increase around 2010 from FY 2005)

<「APEX 40」 and Commercialization Flow>



# 5. Manufacturing Technology Innovation

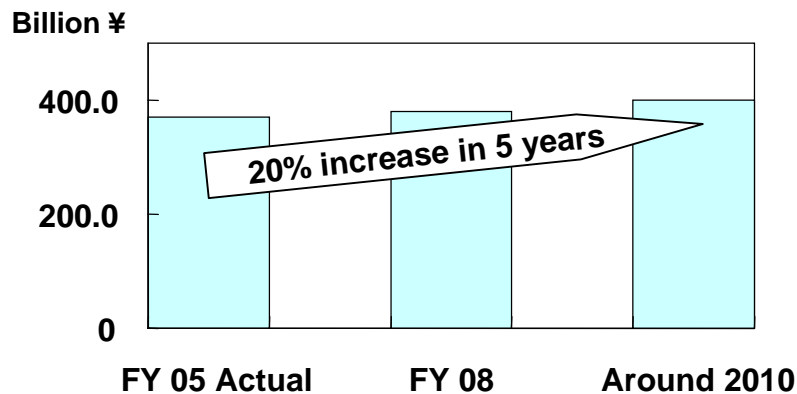
## Issues and Responses

1. Realize world-leading quality with world's lowest costs
2. Generate operational strength at manufacturing facilities → establish management system of technological know-how, strengthen management of plant information, etc.
3. Generate technology development strength → strengthen organization of quality assurance, reinforce overseas' technical development system, etc.

## Targets

1. Expand sales of No. 1 businesses by achieving world-leading quality and world's lowest costs
2. Realize smooth start-up of new businesses through process innovation
3. Reduce losses from quality trouble, etc. (**lower than 1/4** around 2010 from FY 2005 actual)
4. Reduce lost worktime frequency rate (injuries resulting in lost worktime per working hour) **lower than 1/3** around 2010 from FY 2005 actual

<Sales Targets of No. 1 Businesses>



<Example of New Businesses>

- High-performance optical films
- Circuit boards for IC bonding with world's highest density
- CMP polishing pad, etc.

# 6. Cost Innovation Project

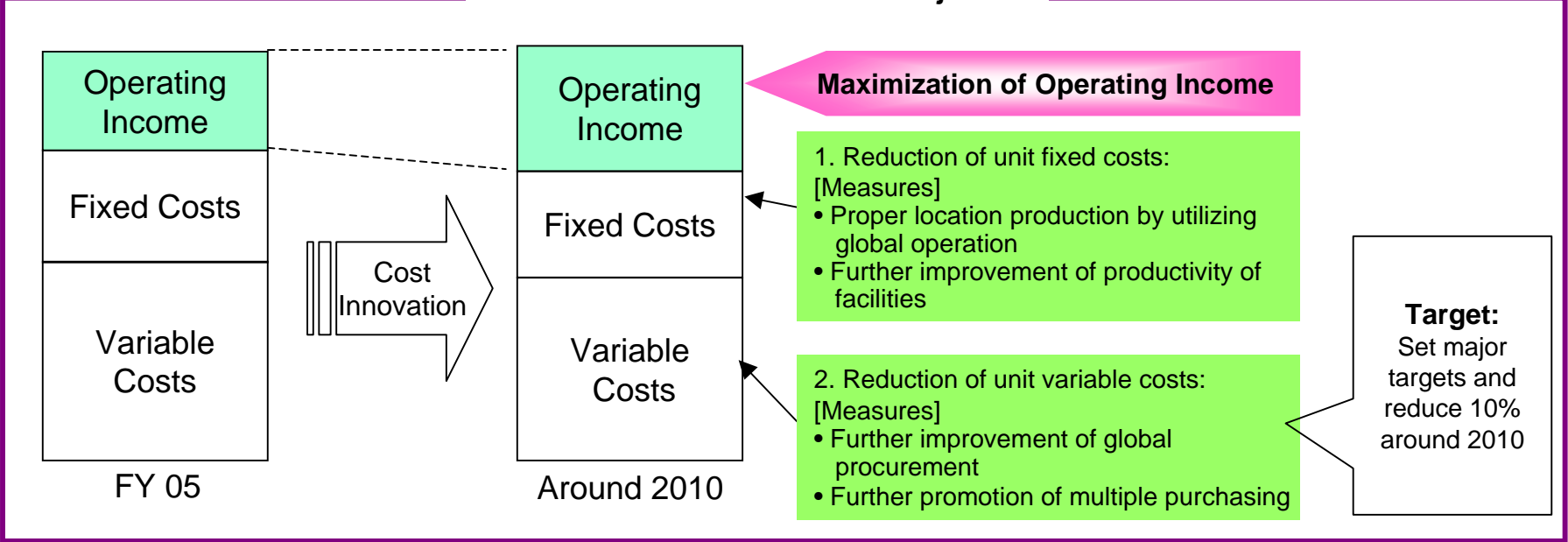
### Issues and Responses

1. Reduce costs by reviewing the manufacturing structure in existing businesses and optimizing fixed costs
2. Reduce variable costs
3. Improve efficiency of capital expenditure

### Targets

1. Reduce fixed costs through improvement of unit fixed costs and review of manufacturing structure in existing businesses
2. Reduce variable costs (set major targets and **reduce 10% in 5 years**)
3. Improve efficiency of capital expenditure

<Outline of Cost Innovation Project>



# 7. Marketing and Sales Innovation Project

## Issues and Responses

Thorough implementation of customer-oriented, proposal-based marketing and sales

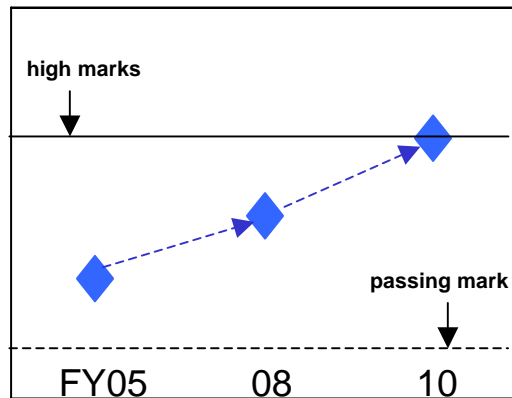
1. Strengthen product planning capabilities in advance of customers' needs
2. Strengthen the foundation of market survey and analysis with mid-term and long-term point of view
3. Establish thorough education/training system

## Targets

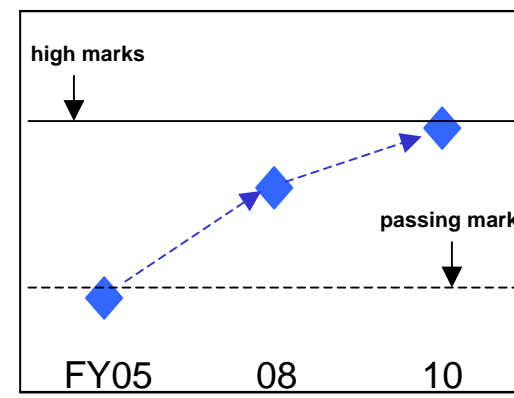
1. Enhance external evaluation of marketing and sales capabilities based on monitoring results of customers' survey
2. Enhance internal evaluation of marketing and sales capabilities based on employees' consciousness research
3. Increase sales and number of themes of New Value Creator (NVC) businesses

### <Image of Customers' Survey and Employees' Consciousness Research>

#### Customers' Survey (e.g. sales response)



#### Employees' Consciousness Research (e.g. utilization of technologies/skills)



# 8. Corporate Brand Strengthening Project

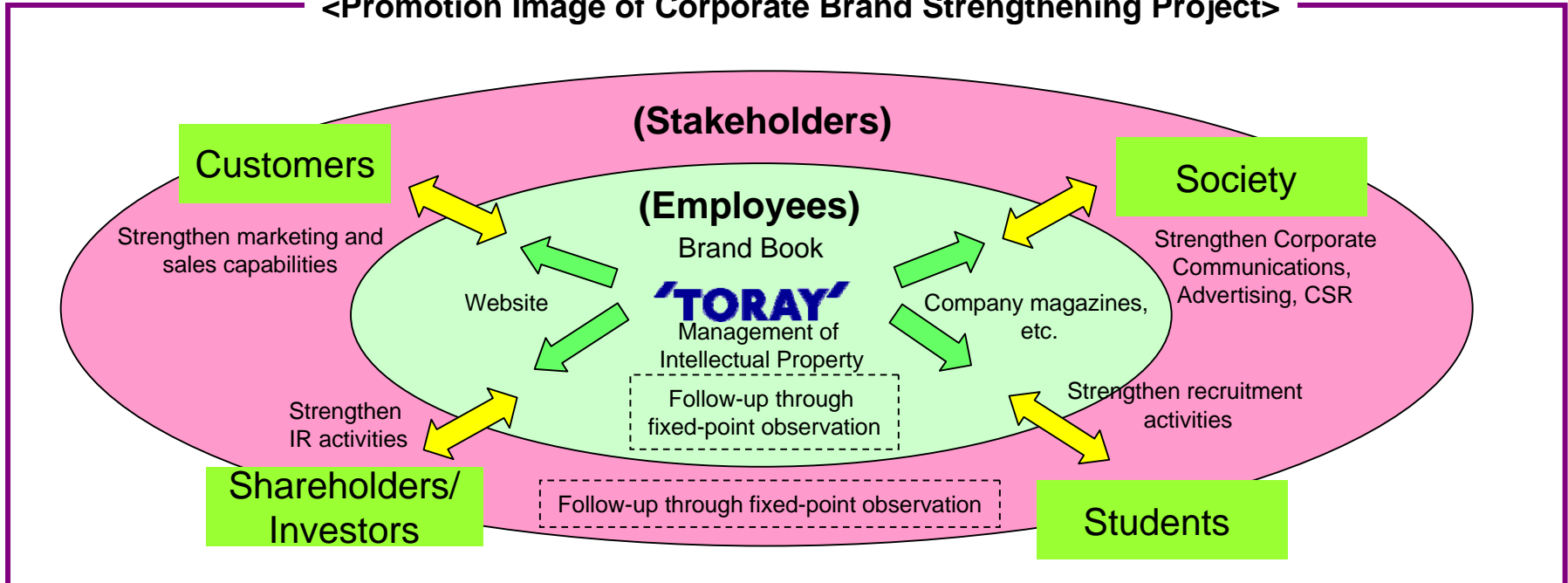
## Issues and Responses

1. Heighten the appeal of the Group's corporate brand (CB) and corporate image
2. Further enhance employee loyalty (unified strength and company spirit)

## Targets

1. Enhance corporate image index based on external corporate image research and questionnaire survey
2. Enhance employee loyalty through employees' consciousness research

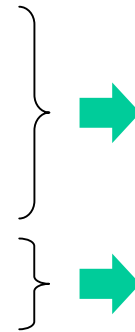
### <Promotion Image of Corporate Brand Strengthening Project>



## Foundation Businesses

### Fibers & Textiles, Plastics / Chemicals

1. Developing global operations
2. Promoting "New Value Creator"
3. Developing downstream and processing business
4. Expanding advanced materials (automobiles, environment/energy, etc.)



Establish stable profit base

Promote advancement of foundation businesses

## Strategically Expanding Businesses

### IT-related Products, Carbon Fibers Composite Materials

1. Focusing on growing markets (IT, automobiles, aircrafts)
2. Prioritizing allocation of managerial resources



Positive expansion as profit driving businesses

## Strategically Developing Businesses

### Life Science, Environment (water treatment)

Nurturing the next profit base beyond 2010

1. Intensive allocation of managerial resources
2. M&A and strategic alliances with external parties

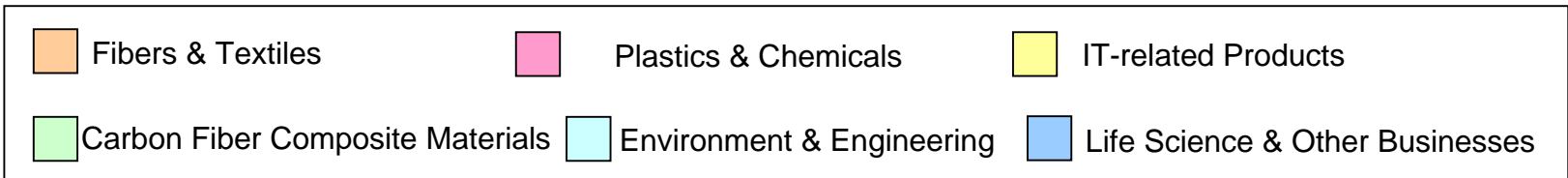
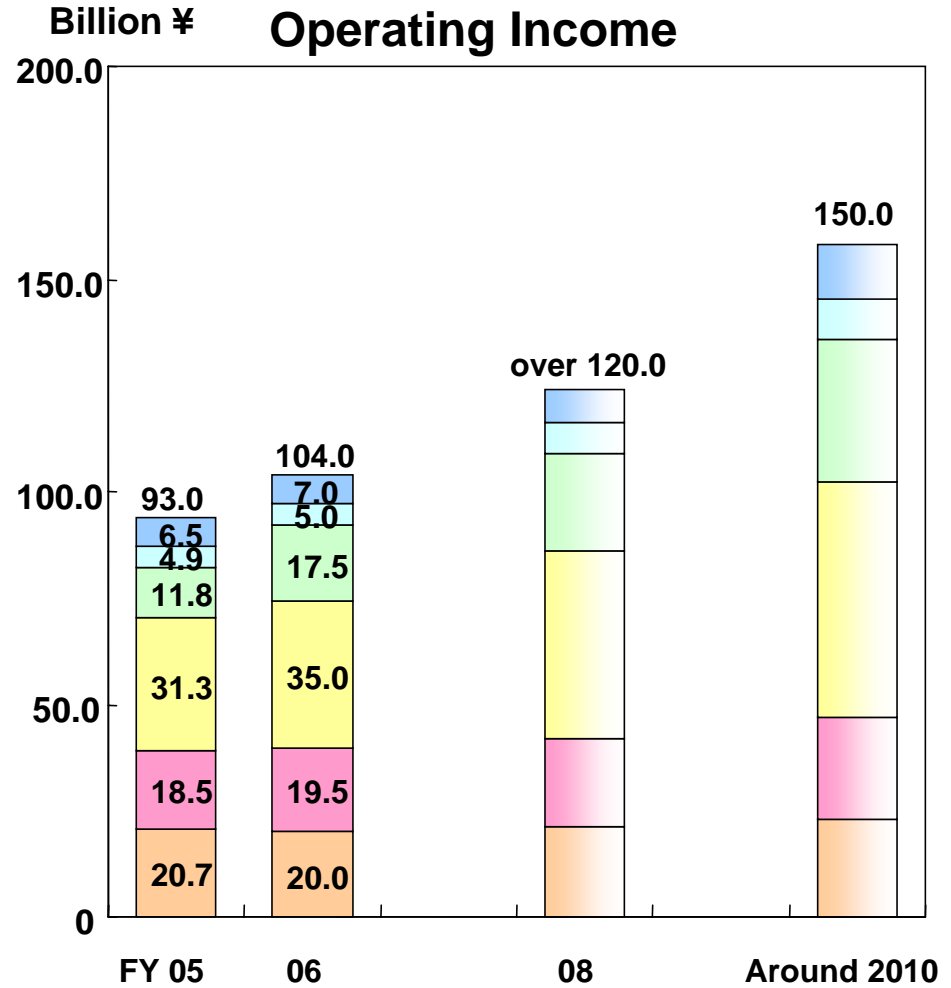
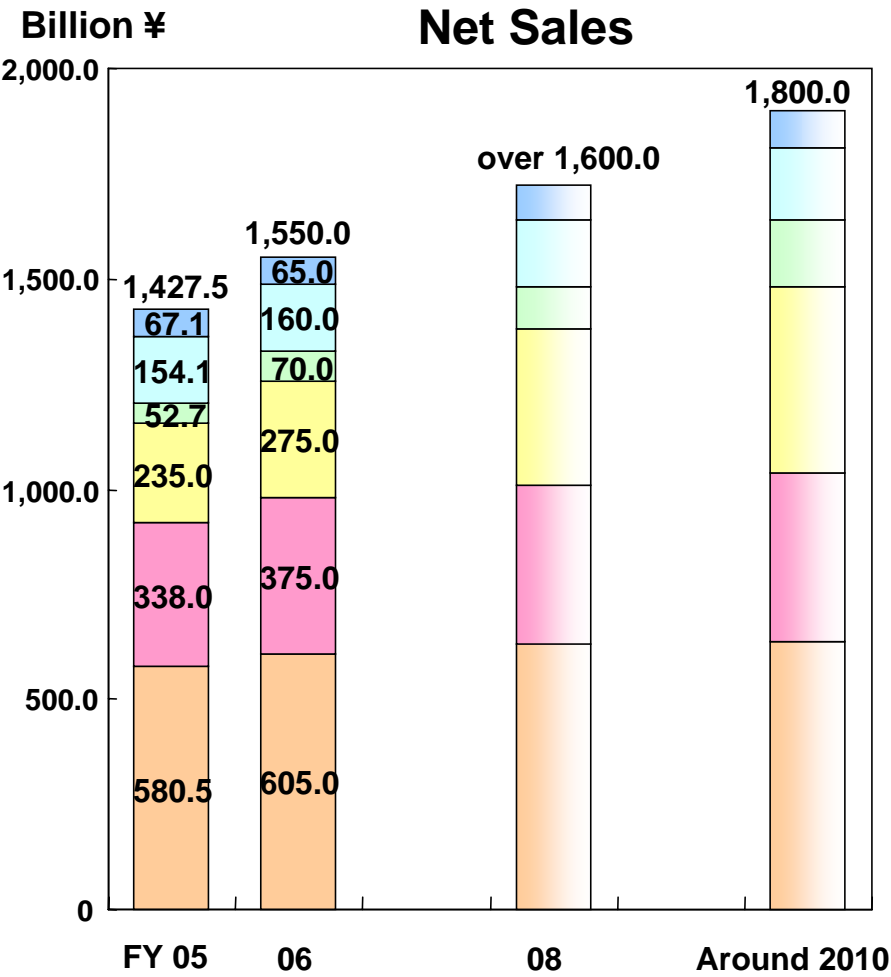


Strategically developing and expanding

Sustainable Growth

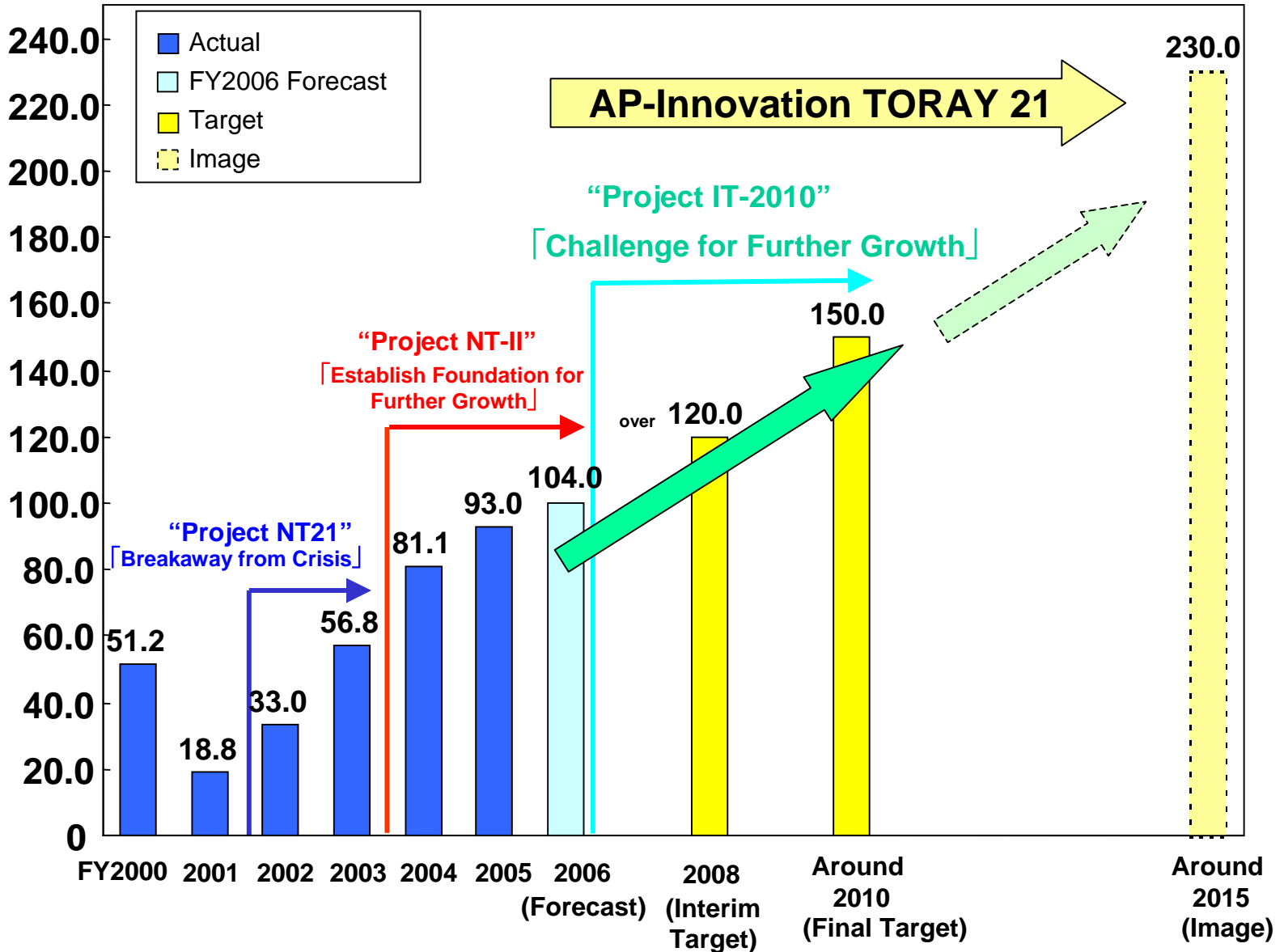


# Trends in Sales and Operating Income by Business Segment



# Targets in Operating Income under IT-2010

(Billion ¥)



**Descriptions of predicted business results, projections and business plans contained in this material are based on assumptions and forecasts regarding the future business environment, made at the present time.**

**The material in this presentation is not a guarantee of the Company's future business performance.**