

# IT-related Chemicals

## FY 2010 First Half Results & Business Strategy



**November 4, 2010**

Masakazu Tokura

Director & Senior Managing  
Executive Officer

# Today's Agenda

## **I. Overview of Business**

## **II. Recent Performance Trends**

## **III. Business Strategy**

### **(Corporate Business Plan FY 2010-2012)**

1. Business Environment

2. Performance Targets

3. Priority Initiatives

1) Strengthen Existing Business

2) Expand Business

3) Enhance the Efficiency of Our “Globally Integrated Management”

# Today's Agenda

## III-3. Priority Initiatives

### 1. Strengthen Existing Business

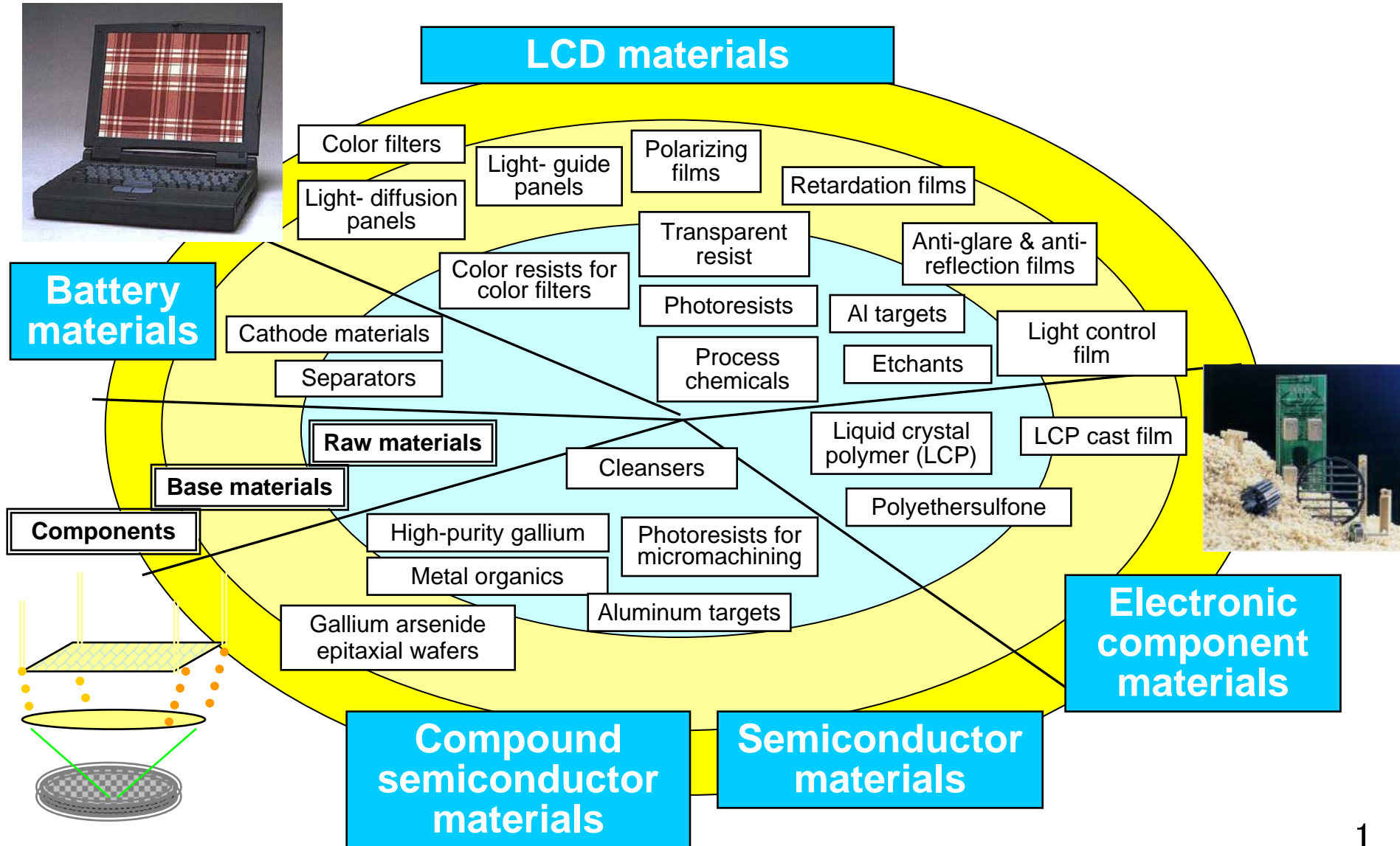
- Gain competitive advantage in polarizing film business
- Restructure back light unit business
- Expand photoresist business

### 2. Expand Business

- Expand business in China as a total provider of LCD materials
- Develop new businesses  
(Materials for LEDs, 3D TVs and next generation semiconductors)
- Expand Dongwoo Fine-Chem's business

### 3. Enhance the Efficiency of Our “Globally Integrated Management”

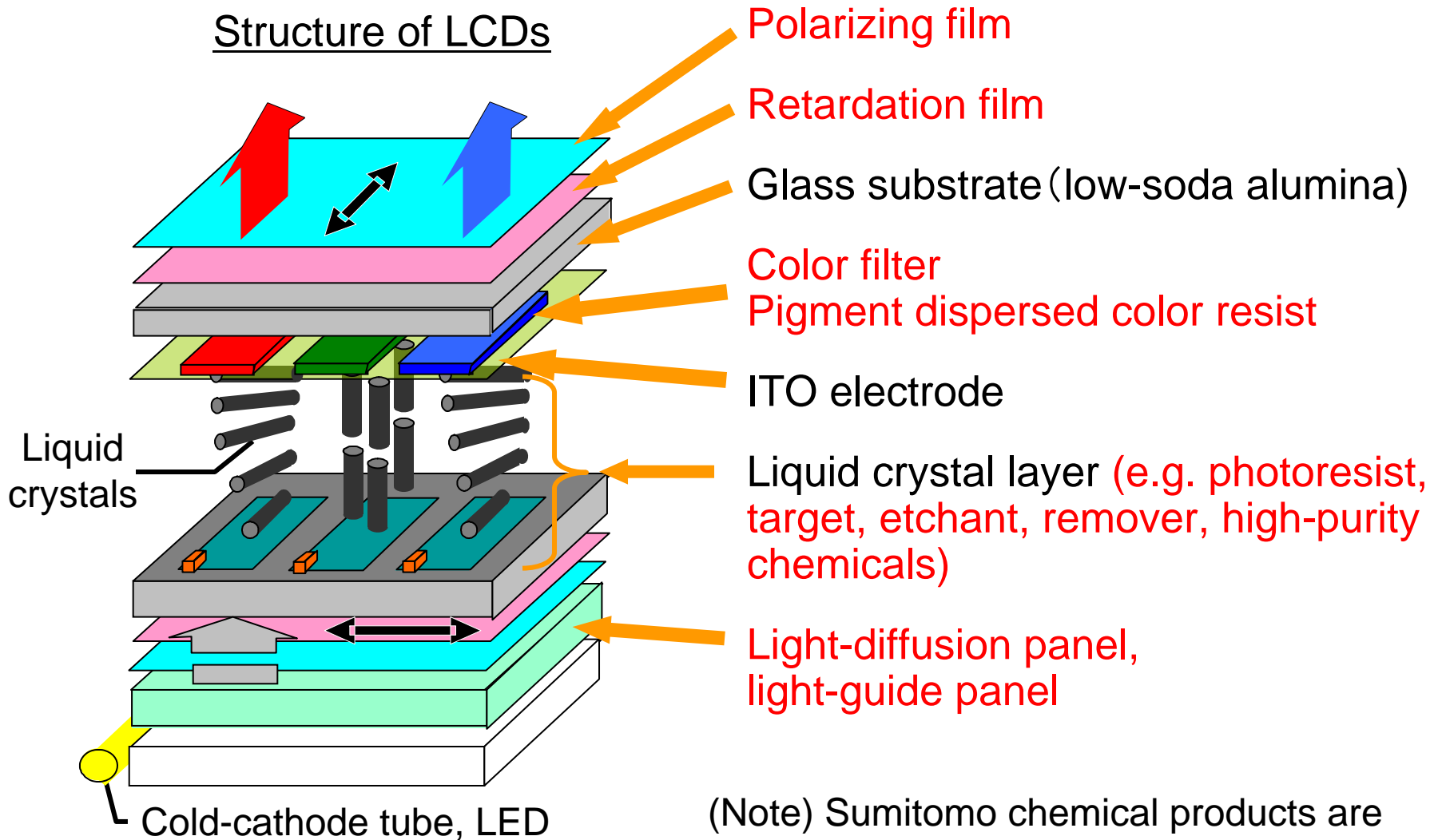
# I. Overview of IT-related Chemicals Business



# I. Overview of Business

## Total Provider of LCD Materials

Structure of LCDs

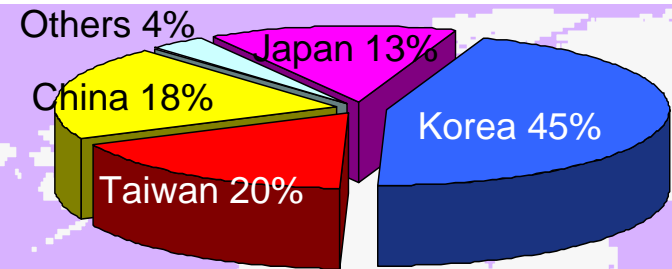


(Note) Sumitomo chemical products are indicated in red

# I. Overview of Business

## Create a Customer-Driven Supply Chain

### Overseas Operations



Overseas sales were 87% of segment's sales in fiscal 2009

- R&D labs
- Sales offices
- Production plants
- Future expansion plan

- ① Japan ② Korea ③ China (Beijing) ④ China (Hefei) ⑤ China (Shanghai)  
⑥ China (Wuxi) ⑦ Taiwan ⑧ Hong Kong ⑨ Singapore ⑩ Slovakia ⑪ Poland  
⑫ Belgium ⑬ America ⑭ China (Huanun)

**I. Overview of Business**

**II. Recent Performance Trends**

**III. Business Strategy**

**(Corporate Business Plan FY 2010-2012)**

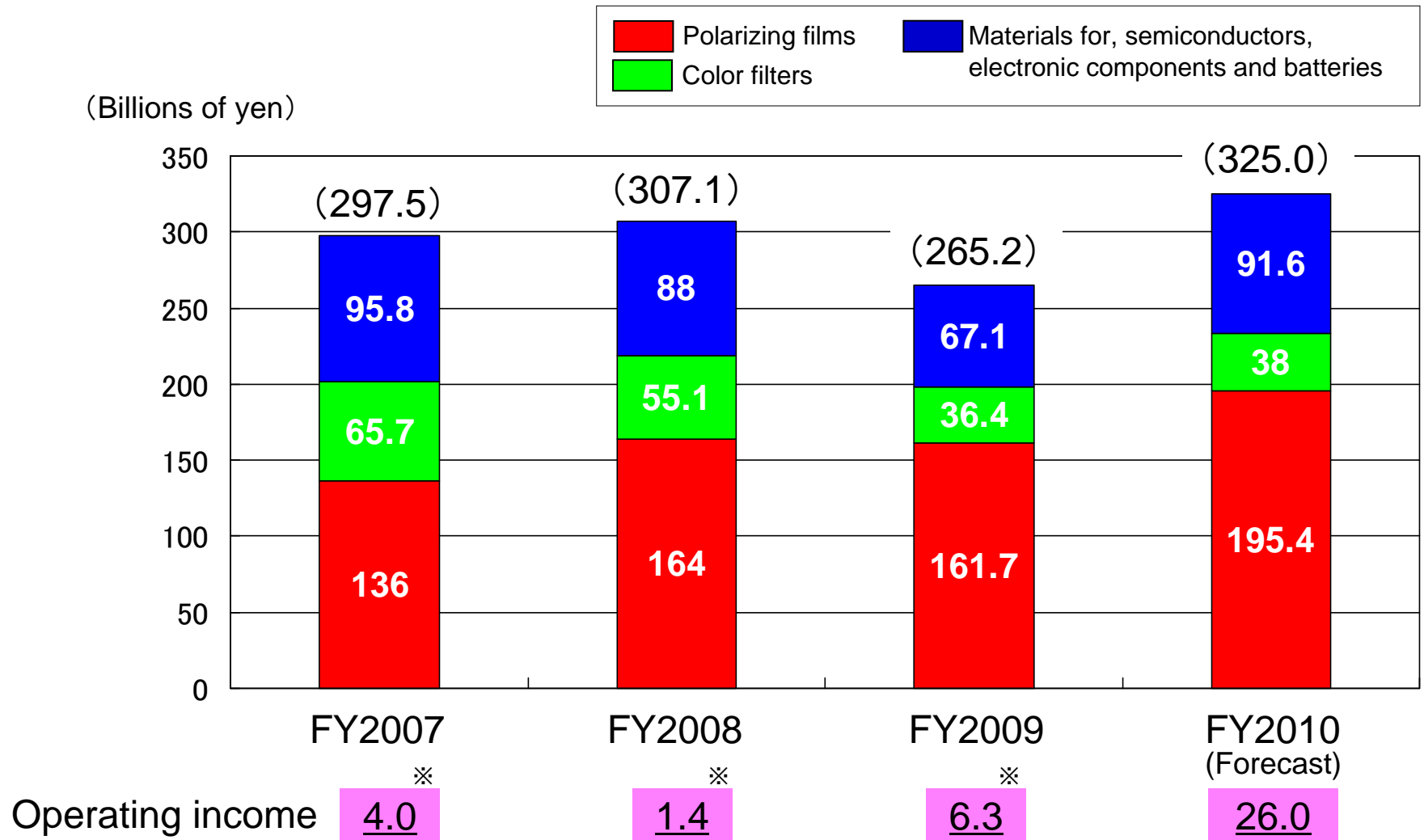
**1. Business Environment**

**2. Performance Targets**

**3. Priority Initiatives**

# II. Performance Trends for FY 2007 to FY 2010

## Full-Year Sales and Operating Income

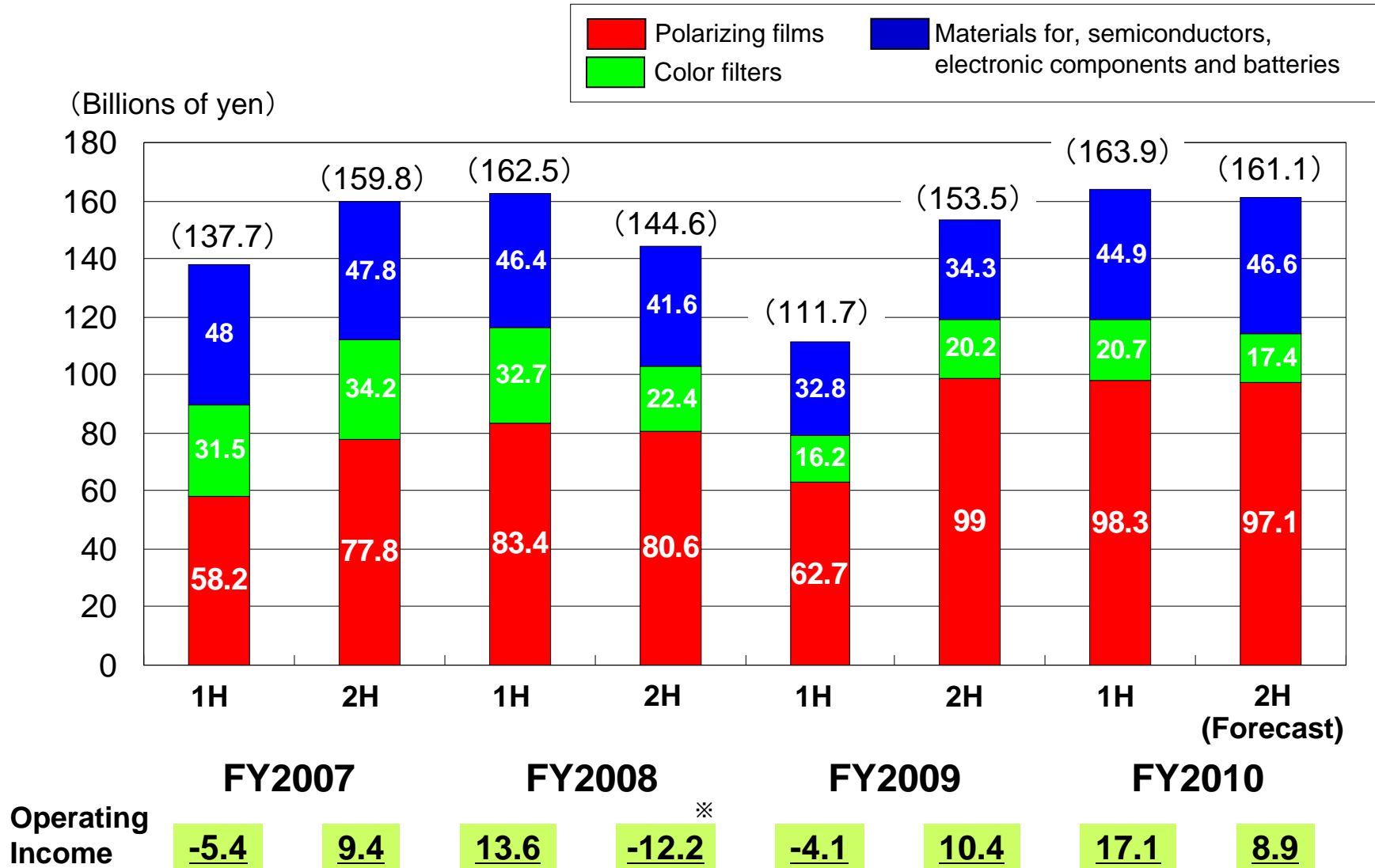


※ For comparison purposes, figures for FY2007 to FY2009 have been adjusted to reflect the change in the method for allocating common company-wide research expenses and other expenses applied from the beginning of FY2010.



# II. Performance Trends for FY 2007 to FY 2010

## Half-Year Sales and Operating Income



※Includes one-time amortization of inspection facilities for ArF photoresists (¥6.6 billion)

# **I. Overview of Business**

## **II. Recent Performance Trends**

## **III. Business Strategy**

**(Corporate Business Plan FY 2010-2012)**

### **1. Business Environment**

### **2. Performance Targets**

### **3. Priority Initiatives**

# III. Business Strategy

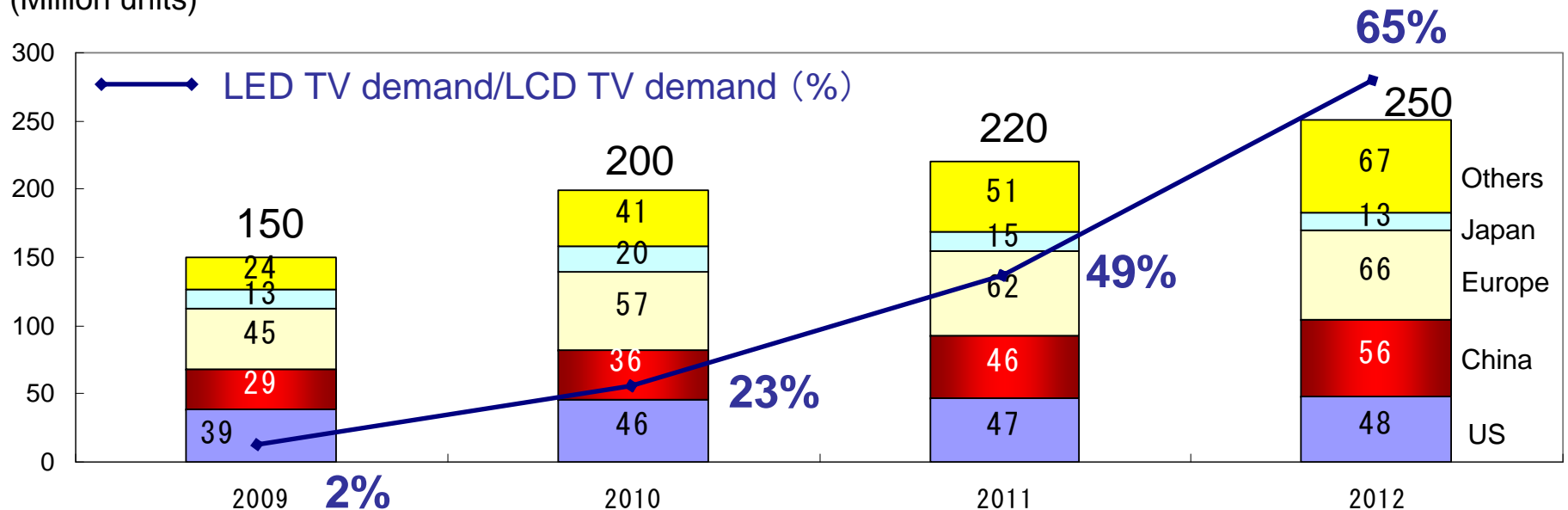
## 1. Business Environment

### Demand for LCD Panels

- Demand growth in China and other markets faster than expected
- Demand for LED TVs stronger than expected
- 3D TVs and internet TVs launched
- Thriving smart phone and slate PC markets

### Global demand for LCD pannels for TVs

(Million units)



**I. Overview of Business**

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**(Corporate Business Plan FY 2010-2012)**

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# III. Business Strategy

## 1. Objective and Basic Strategies

### **【Basic Strategy No.1: Create a customer-driven supply chain】**

- Expand business in China as a total provider of LCD materials
- Enhance the Efficiency of Our “Globally Integrated Management”



### **【Basic Strategy No.2: Develop innovative technology】**

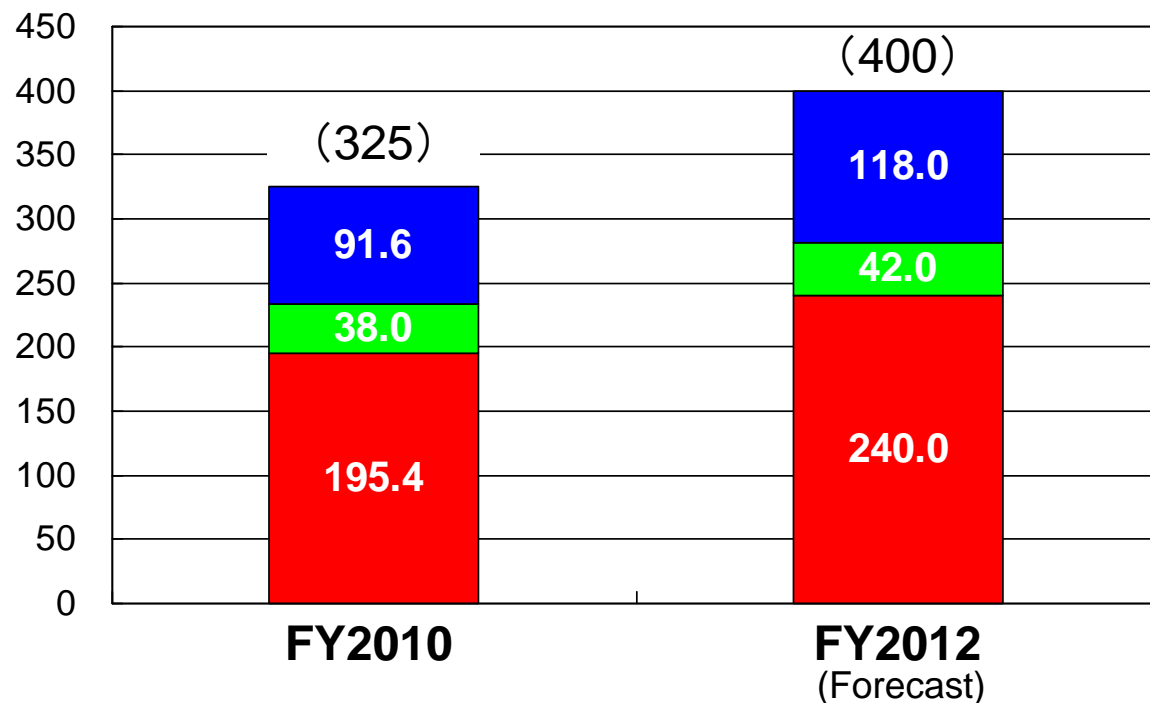
- Improve productivity of R&D and technologies development  
(Build technological platforms)
- Enhance development of proprietary materials and core technologies

**【Objective: Establish the foundation for sustainable profitability through technological innovation】**

# III. Business Strategy

## 2. Target and Basic Strategy (Performance Targets)

(Billions of yen)



- Materials for, semiconductors, electronic components and batteries
- Polarizing films
- Color filters

Operating income	<u>26.0</u> (8.0%)	<u>44.0</u> (11.0%)
NOPAT	<u>19.0</u> (5.8%)	<u>35.5</u> (8.9%)
Invested capital	<u>168.9</u>	<u>180.2</u>
ROI	<u>11.2%</u>	<u>19.7%</u>
Turnover of invested capital	<u>1.9</u>	<u>2.2</u>

### Rationalizations

(FY09 vs. FY12)

¥70.0 billion

### Investment

(FY10 to FY12)

¥90.0 billion

(Operating Cash Flow  
¥120.0 billion)

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**(Corporate Business Plan FY 2010-2012)**

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## III-3. Priority Initiatives

### 1. Strengthen Existing Business

- Gain Competitive Advantage in Polarizing Film Business
- Restructure Back Light Unit Business
- Expand Photoresist Business

### 2. Expand Business

- Expand Business in China as a Total Provider of LCD Materials
- Develop New Businesses  
(Materials for LEDs, 3D TVs and next generation semiconductors)
- Expand Dongwoo Fine-Chem's Business

### 3. Enhance the Efficiency of Our “Globally Integrated Management”



# III. Business Strategy 3. Priority Initiatives

## 1) Strengthen Existing Business

### Gain Competitive Advantage in Polarizing Film Business

#### Challenges

1. Change in competitive landscape
  - Growing competition with LCD panel producer's in-house production
2. Marketing strategy for China and other countries with growing demand
  - Strategy for business with LCD panel producers in Japan, Korea and Taiwan (e.g. Samsung, CMI)
  - Strategy for business with LCD panel producers in China (e.g. BOE)
3. Enhance Product Portfolio

#### Initiatives for gaining competitive advantage

- Increase production volume
- Continue developing innovative technologies
- Enhance supply chain in China
- Expand high value added small-sized polarizing film business by increasing sales for smart phone and slate PC applications (double the current annual ¥40 billion in sales)

# III. Business Strategy 3. Priority Initiatives

## 1) Strengthen Existing Business

### Gain Competitive Advantage with Higher Production Capacity

#### Increase production and sales volumes

- Investments in new production facilities (Constructing a new plant in Taiwan, studying further investments in China and Korea)
- Increase productivity of existing facilities with new technology
- Build supply chains for Chinese LCD panel producers (e.g. BOE)

#### Polarizing film production capacity

			12/31/2009		12/31/2012
			Capacity		Capacity
Japan	Existing facilities		1.1		1.3
	Line No.3	Wide roll	1.0		1.4
Korea	Existing facilities		3.2		3.8
	Line No.5	Extra-wide roll	1.4		1.6
	Line No.6	Undecided	-		Undecided
Taiwan	Existing facilities		1.4		1.8
	Line No.3	Extra-extra-wide roll	-		2.1
China	Line No.1	Undecided	-		Undecided
Total			8.1		12.0+ $\alpha$

# III. Business Strategy 3. Priority Initiatives

## 1) Strengthen Existing Business

### Gain Competitive Advantage in Polarizing Film Business

#### Pursue innovative technologies

- Upstream: Develop products using in-house materials
- Midstream: Enhance core technology (e.g. stretching, adhering, adhesive coating, inspection)
- Downstream: Cooperate with LCD panel and TV set manufacturers (e.g. polarizing films with additional functions)

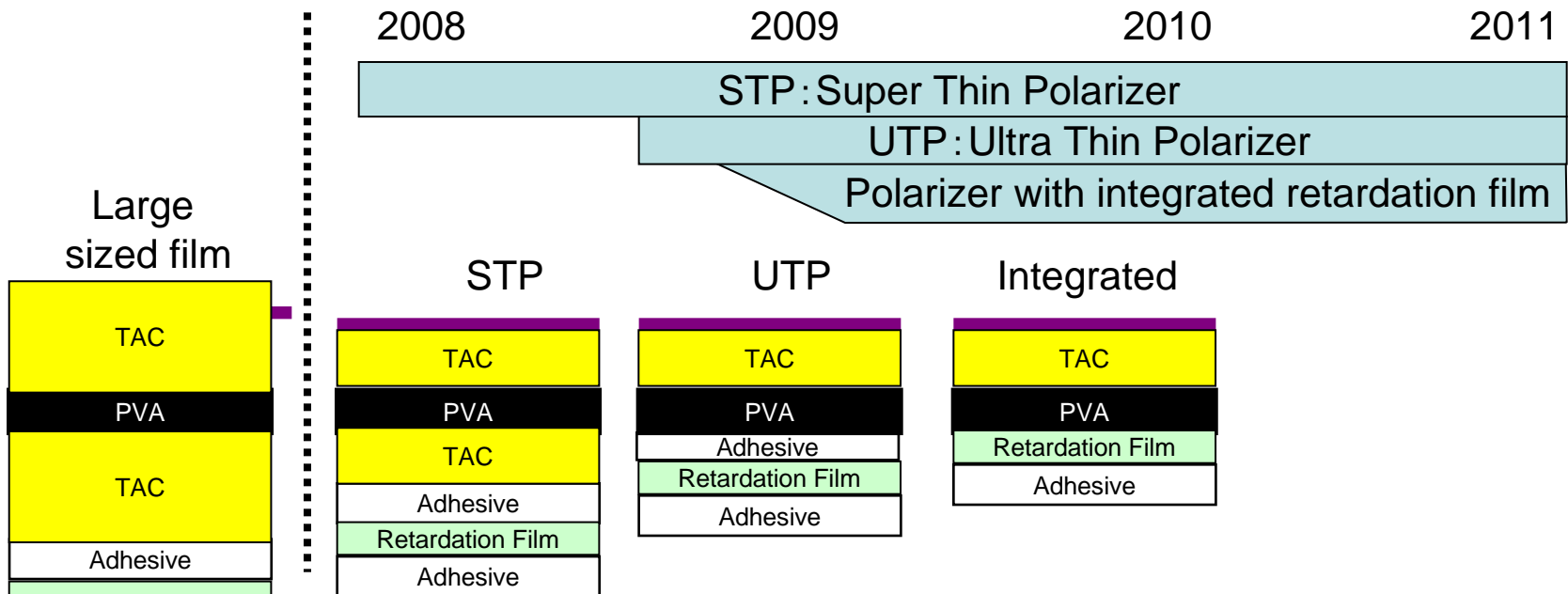


# III. Business Strategy 3. Priority Initiatives

## 1) Strengthen Current Business

### Expand Product Line for High Value Added Small-Sized Films

#### Technology Strategy (Develop Thinner Polarizing Films)



#### Features of new products

- Use of slim type TAC films
- Use of slim type retardation films
- Use of slim type adhesive materials
- Use of integrated retardation films



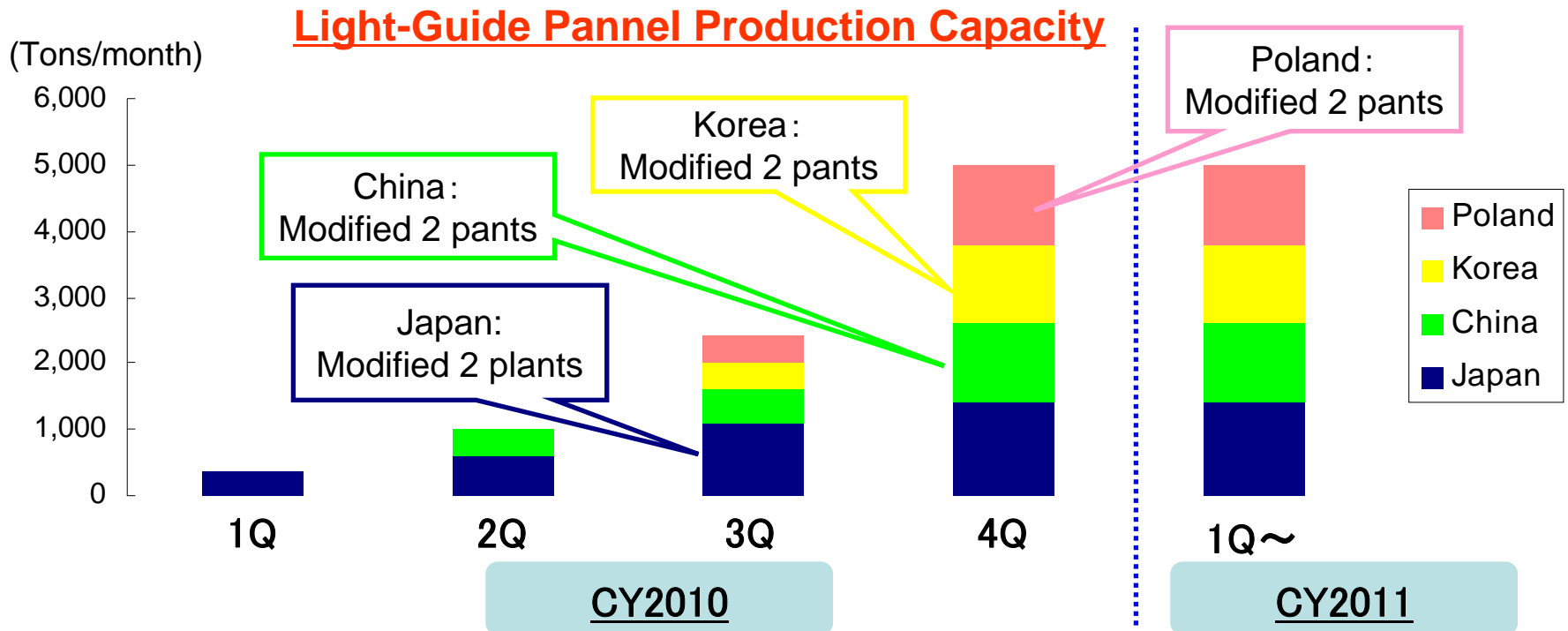
Develop thinner Polarizing Films

# III. Business Strategy 3. Priority Initiatives

## 1) Strengthen Current Business

### Restructure Back Light Unit Business

In order to meet the growing demand for LED TVs, we modified our light-diffusion panel plants around the world to produce light-guide panels.



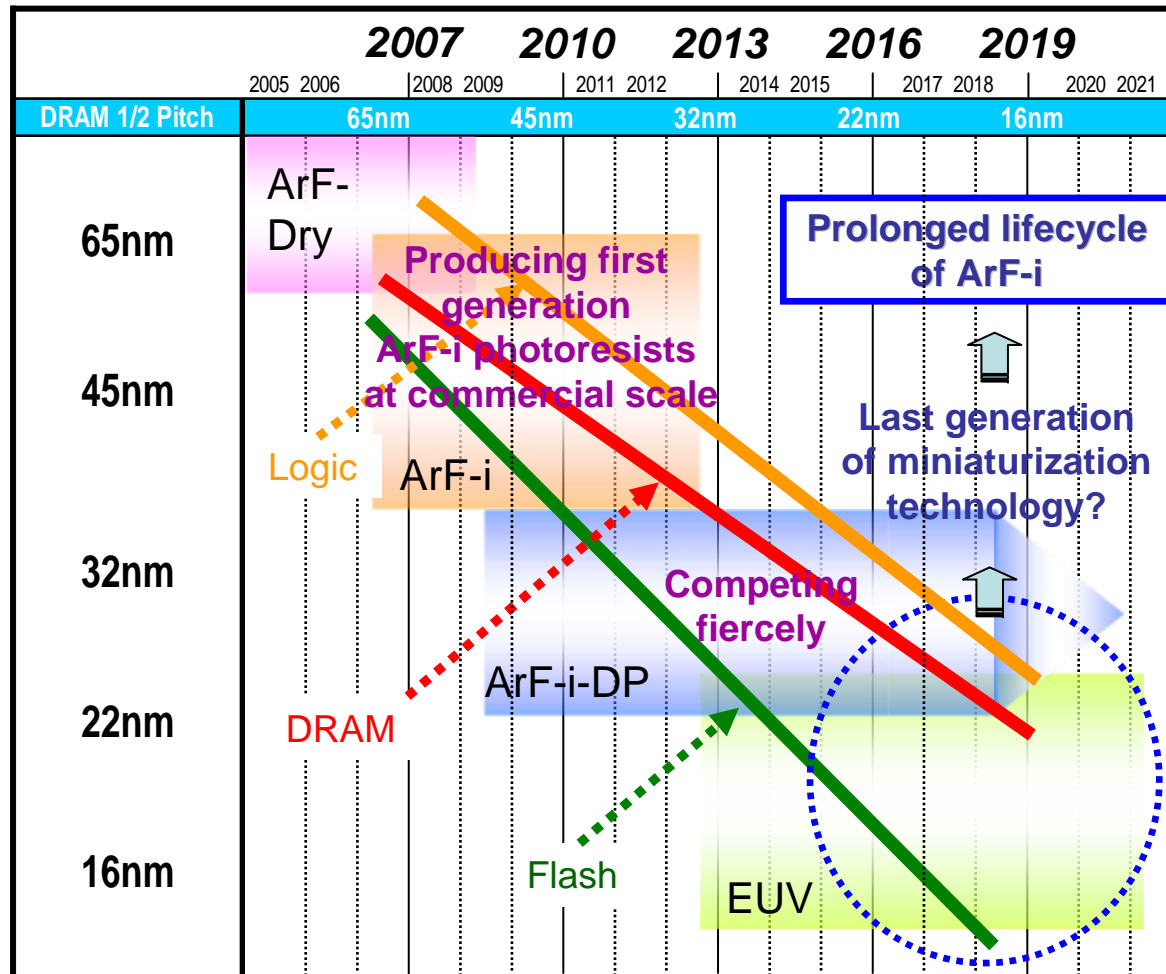
- Light-diffusion panel production capacity: 9,000 tons/year (2010.4Q)
- Light-guide panel production capacity: 60,000 tons/year (2010.4Q)
- In-house processing of printing process expected to lower costs (In-house processing planned to start around 2011.1H)

# III. Business Strategy 3. Priority Initiatives

## 1) Strengthen Current Business

### Expand Photoresist Business

Road map for the miniaturization of semiconductors



# III. Business Strategy 3. Priority Initiatives

## 1) Strengthen Current Business

### Expand Photoresist Business Investment and Business Strategy for ArF Photoresist

#### Investment in ArF Photoresist

Production plant	e.g. New production plant for ArF photoresist	¥12 billion	Launched operations in March 2009
Inspection facilities	e.g. Stepper for ArF immersion exposure process, defect inspection equipment		

(Note) The new plant and facilities were constructed at the Osaka Works

#### Background

- ArF immersion exposure process is expected to be used in manufacturing process for semiconductors with 5X to 2Xnm wide circuit line
- Global ArF photoresist demand to reach ¥80 to ¥100 billion in 2014 (2/3 of the demand expected in Asia)
- Our ArF immersion photoresist delivers high performance with our proprietary PAG and resin
- Aiming to gain leading position in the market

## III-3. Priority Initiatives

### 1. Strengthen Existing Business

- Gain competitive advantage in polarizing film business
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### 2. Expand Business

- Expand business in China as a total provider of LCD materials
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### 3. Enhance the Efficiency of Our “Globally Integrated Management”

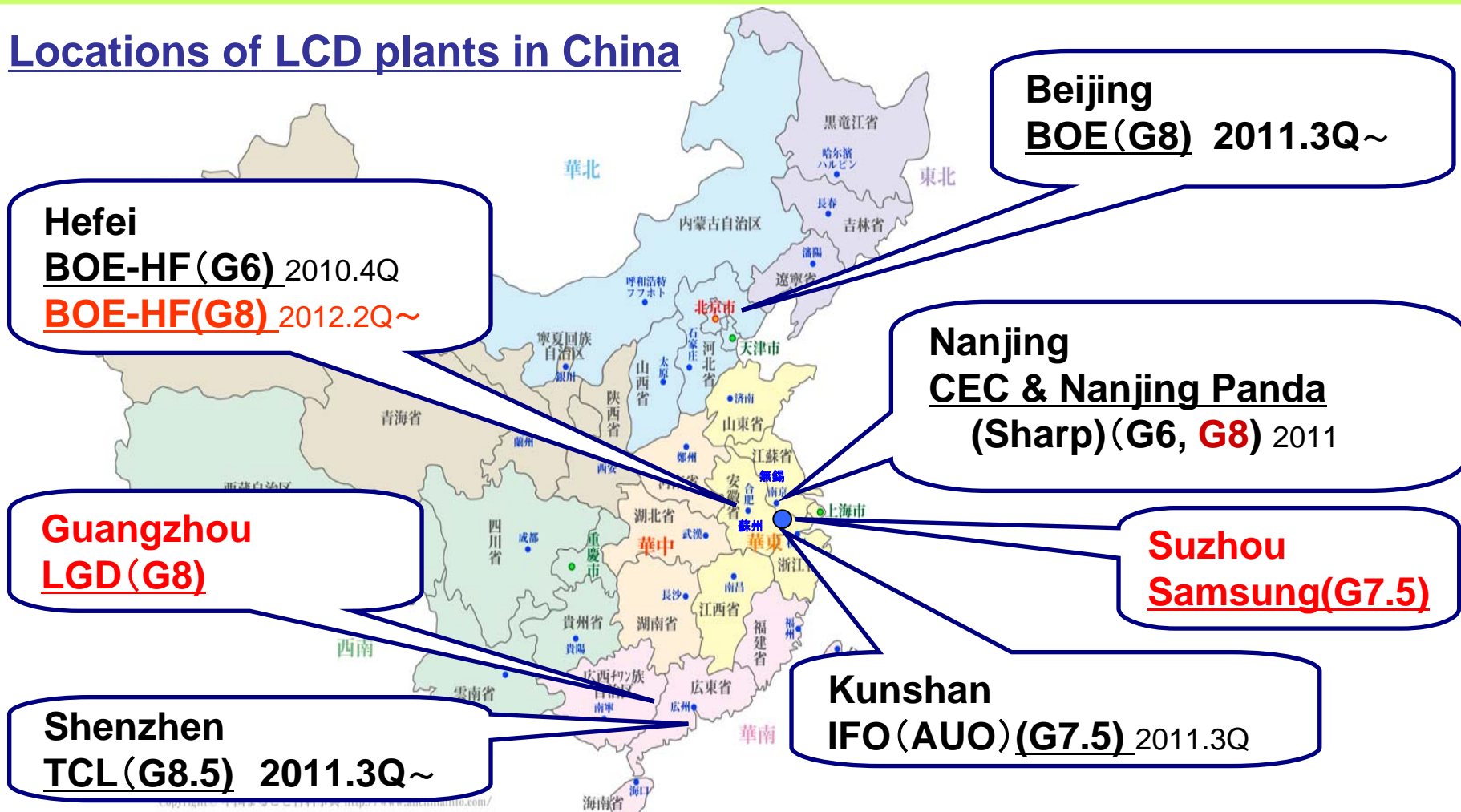


# III. Business Strategy 3. Priority Initiatives

## 2) Expand Business

Expand Business in China as a Total Provider of LCD Materials

### Locations of LCD plants in China



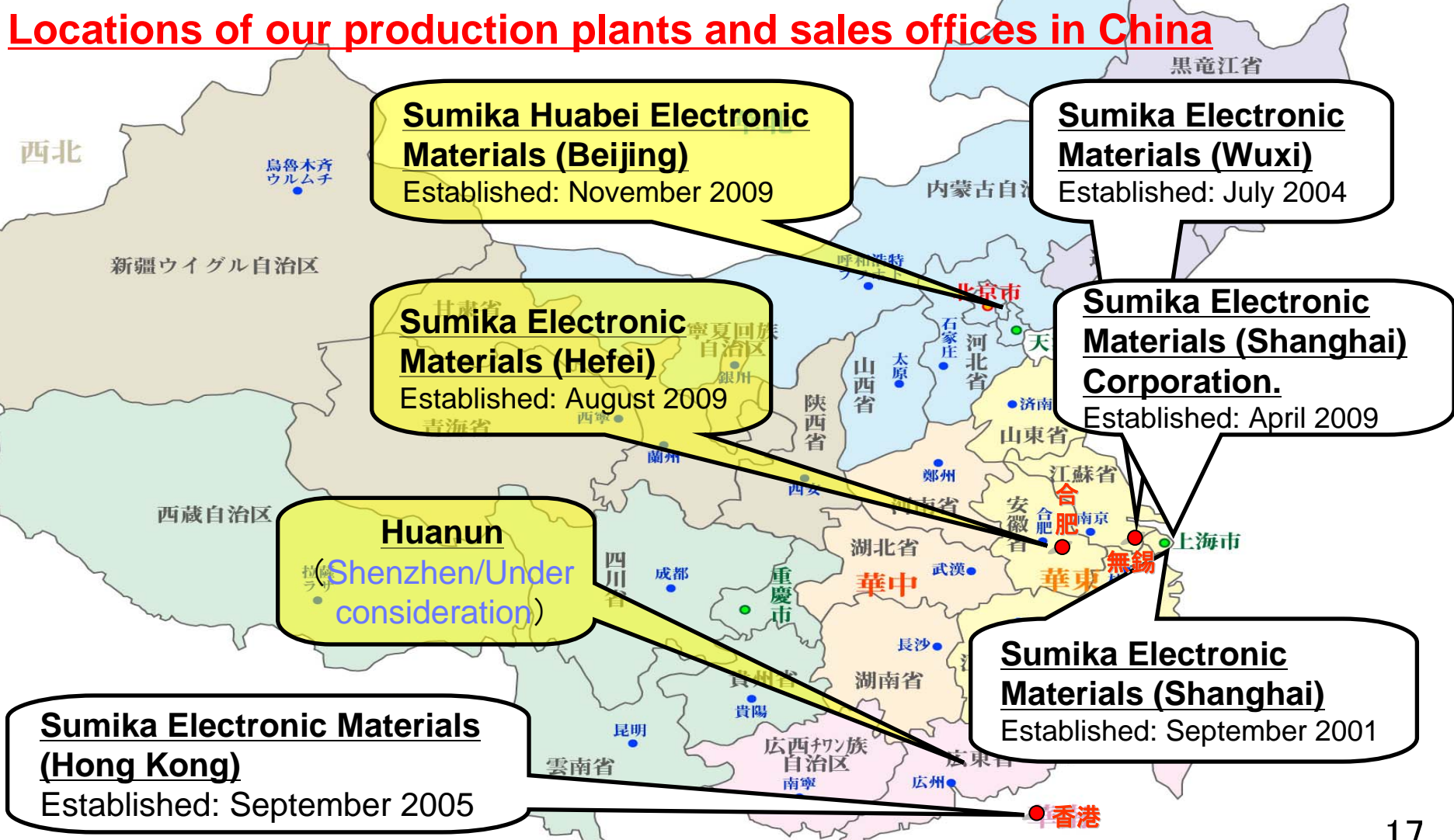
Plants in red: Investment under consideration  
 Plants in black: Under production or construction

# III. Business Strategy 3. Priority Initiatives

## 2) Expand Business

Expand Business in China as a Total Provider of LCD Materials

Locations of our production plants and sales offices in China





# III. Business Strategy 3. Priority Initiatives

## 2) Expand Business

Expand Business in China as a Total Provider of LCD Materials

**Plans to supply LCD materials to BOE and other customers**

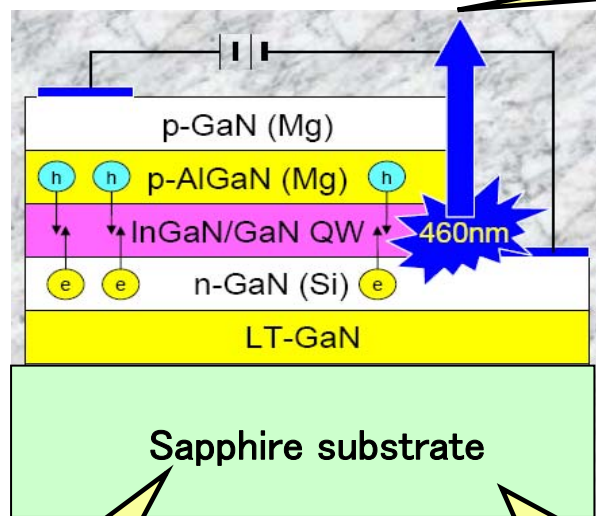
Customer	Supplying subsidiaries	Products	Schedule
BOE Hefei (G6)	SEMH (Hefei) 	Chemicals	Commercial production started from October 2010
	SEMW (Wuxi)	Polarizing films	
BOE Beijing (G8)	SEMB (Beijing)  <small>佳化光电材料科技(北京)有限公司京东方8.5代线上游配套TFT-LCD偏光膜项目 项目业主: 佳化光电材料科技(北京)有限公司 投资方: 日本国住友化学株式会社200%, 注册资本: 2100万美元 建筑面积: 9666平方米, 项目设计单位: 碧源科技工程有限公司 项目总承包商: 中建一局华建建设有限公司, 项目完成日期: 2011年4月</small>	Polarizing films Light-guide panels (Under consideration) Chemicals (Under consideration)	Trial production to start from 2011.2Q, Commercial production to start from 2011.3Q
BOE	SEMS (Shanghai)	Aluminum targets	Commercial production to start from September 2010

# III. Business Strategy 3. Priority Initiatives

## 2) Expand Business

### Develop New Businesses Case 1. LED related business

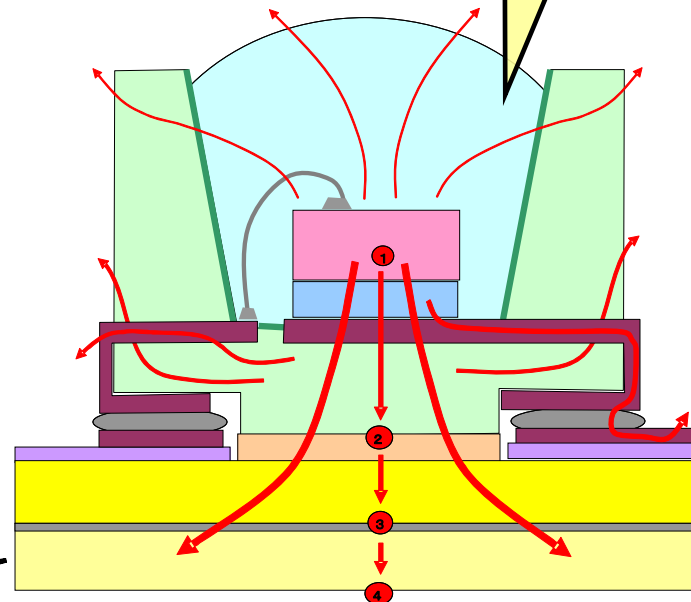
<LED Chip>



Materials:  
MO (TMG, TMI)

LCP Package

<LED Package>



Sapphire  
substrate

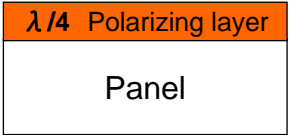
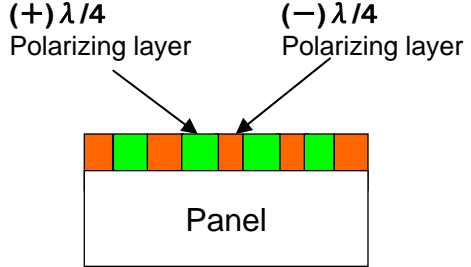
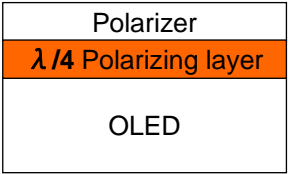
Main Material:  
High-purity alumina

Heatsink  
(Soluble LCP)

# III. Business Strategy 3. Priority Initiatives

## 2) Expand Business

### Develop New Businesses Case 2. High performance films for displays

	Polarizing films for 3D TV		Polarizing films for OLED
Devices	LCD		OLED
3D technology	Active shutter technology (*2)	Passive technology (*1)(*2)	/
Optical functions of films	Circular polarizer	Left and right circular polarizer	
Examples of the structure	 <p><math>\lambda/4</math> Polarizing layer Panel</p>	 <p>(+) <math>\lambda/4</math> Polarizing layer      (-) <math>\lambda/4</math> Polarizing layer Panel</p>	 <p>Polarizer <math>\lambda/4</math> Polarizing layer OLED</p>

\*1: Films for passive technology can be used in OLEDs and PDPs

\*2: Displays stereoscopic vision using liquid crystal shutter glasses

\*3: Displays stereoscopic vision using polarized glasses with no shutter function

# III. Business Strategy 3. Priority Initiatives

## 2) Expand Business

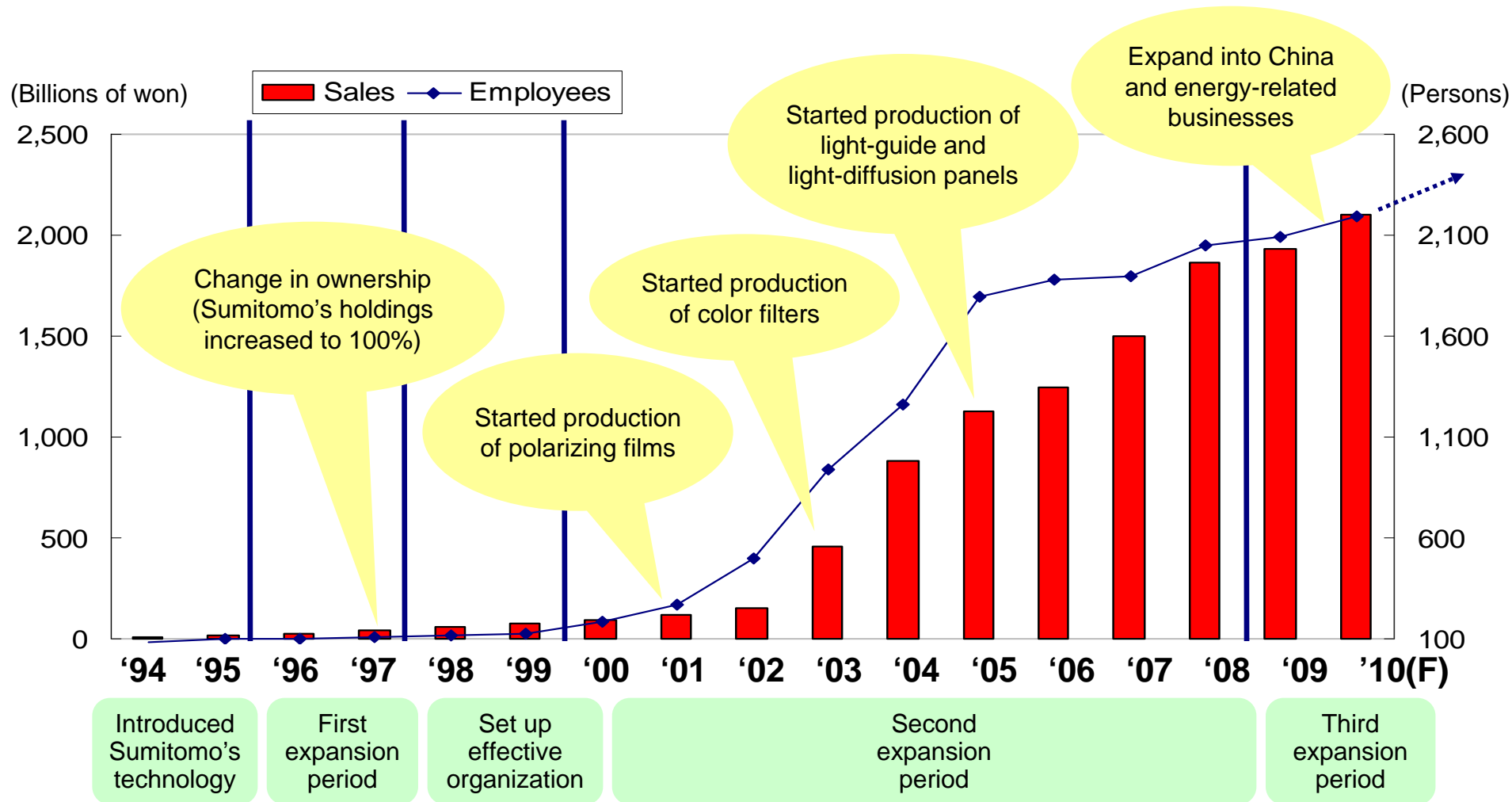
### Develop New Businesses Case 3. Epitaxial wafers for compound semiconductors

Material	GaAs (electronics)	GaAs (optical)	GaN (power)	Solar battery
Keyword	Ubiquitous computing	Office revolution	Energy-saving	Satellite
Applications	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p><u>Smartphones</u></p>  </div> <div style="text-align: center;"> <p><u>Color printers (copy machines)</u></p>  </div> <div style="text-align: center;"> <p><u>Inverter-run air conditioners</u></p>  </div> <div style="text-align: center;"> <p><u>Hybrid vehicles</u></p>  </div> <div style="text-align: center;"> <p><u>Exploration &amp; communication satellites</u></p>  </div> </div>			
Sales (2010)	¥3 billion	¥1 billion	—	—
(2020)	¥10 billion	¥3 billion	¥10 billion	(¥2 billion)

# III. Business Strategy 3. Priority Initiatives

## 2) Expand Business

### Expand Dongwoo Fine-Chem's business



## III-3. Priority Initiatives

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# III. Business Strategy 3. Priority Initiatives

## Enhance the Efficiency of Our “Globally Integrated Management”

- Daily exchange of technology, marketing and procurement information between group companies as well as integration of strategy and tactics
- Sumitomo Chemical acts as a control tower and develops basic technology

### Build technological platforms

Set up targets for shared productivity benchmarks between group companies in polarizing film business



Take advantage of each company's strengths and, at the same time, expand group-wide common technological platform for core technologies

### Forward-Looking Statements

Statements made in this material with respect to Sumitomo Chemical's plans, projections, strategies, beliefs, and future performance that are not historical facts are forward-looking statements that are based on information available at the time of the preparation of this material and include risks and uncertainties. Factors that could materially affect actual results of Sumitomo Chemical's future performance include, but are not limited to, economic conditions in the areas of Sumitomo Chemical's business, demand for Sumitomo Chemical's products in markets, downward price pressure on Sumitomo Chemical's products resulting from intensifying competition, Sumitomo Chemical's ability to continue to provide products that are accepted by customers in highly-competitive markets, and movements of currency exchange rates.