

Showa Denko's Business Strategy

Structural reform and return to growth track



SHOWA DENKO K.K.

Kyohei Takahashi, President and CEO

July 31, 2009

This presentation contains statements relating to management's projections of future profits and expectations for the Company's product development program. The Company cannot guarantee that these expectations and projections will be realized or correct. Please note that actual results may differ materially from the forecast due to a variety of factors, including changes in the market conditions. The timely commercialization of products under development by the Company may be disrupted or delayed by a variety of factors, including market acceptance and the introduction of new products by competitors. The foregoing list of factors is not inclusive.

Introduction — Preparation for the next business plan

1 2009—2010 : Structural reform and preparation for growth

- a. Current situation of our operations
- b. HD business
- c. LED business
- d. Performance forecast for 2009
- e. Major steps for the 2009-2010 period

2 2011—2015 : Medium-term business strategy for new growth

- a. Basic policy for the 2011-2015 period
- b. Evolving unique chemical company with individualized products
- c. Business portfolio
- d. Expansion of growth businesses
- e. Development of new businesses
- f. Strategy for existing businesses
- g. Financial targets

(The next business plan will be announced in the second half of 2010.)

Contribution to society

2011–2015: Medium-term business strategy

As an “evolving unique chemical company with individualized products,” we will contribute to sustainable growth of international society.

- Inorganic/metal & organic chemical technologies; “human strengths”
- Structural reform; creation of next-generation businesses in such areas as energy & resource conservation, environmental protection, and electronics.

2009–2010: Passion Extension

Preparing for the next business plan for 2011 and after

- Structural reform in response to changes in environment
- Growth strategy based on identification of growth areas

2006–2008: Passion Project

Laying the groundwork for sustainable growth

- Accelerate “new growth driver” businesses
- Continuous expansion in profit
- Improvement in financial strength

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1. 2009–2010: Structural reform and preparation for growth



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a. Current situation of our operations

【Trends of customer industries in 2009】

Overall demand is recovering, after hitting the bottom in 1Q;
but recovery rate is different by sector

□ Petrochemicals

Driven by China's brisk demand, olefin and other petchem markets in Asia are improving; plant utilization rates for derivatives, such as plastics, are up.

□ HDD

Quick recovery in the HDD industry in 2Q (especially in notebook PCs)

□ Automobiles

Demand for hybrid and other eco-cars increasing; Emerging markets, centering on China, are growing; No quick recovery in Japan, U.S. & Europe

□ Steel

Demand increasing in some of the emerging countries; Full recovery in the Japanese, U.S. and European markets will be in 2010 or after.

□ Semiconductors

Recovery will be slow.

a. Current situation of our operations

【Businesses on the recovery path】

- Petrochemicals : Full-capacity operation since June (70% in Jan. and Feb.)
- HD: Plant utilization is up quickly, following the recovery in HDD (40% in 1Q ⇒ 80% at present)
- LED: Shipment volumes up in 3Q (esp. ultrabright blue)
- Specialty gasses for electronics :
Up for LCDs; slow recovery for semiconductors
(Plant utilization for high-purity chlorine and ammonia:
20~30% in Jan. and Feb. ⇒ Almost full at present)
- High-purity aluminum foils for capacitors :
Quick recovery in shipment volumes in 3Q
(Plant utilization:10% in 1Q ⇒ Almost full at present)
- Aluminum cans: Full-capacity operation since early 2009
- Cooling system for power semiconductors in hybrid cars :
Full-capacity operation due to growing demand for hybrid cars

a. Current situation of our operations

【Businesses with slow recovery】

Plant utilization for automotive aluminum components has recovered to 60-70%; for the rest of the following, 50%.

❑Automotive aluminum components (Heat exchangers, *Shotic*TM) :

Slow recovery, except for hybrid car applications

❑Graphite electrodes for electric arc furnace steelmaking:

Recovering in Japan in 3Q, but the rate is slow.

❑Ceramic abrasives :

Slow recovery, reflecting stagnant industrial production in Japan.

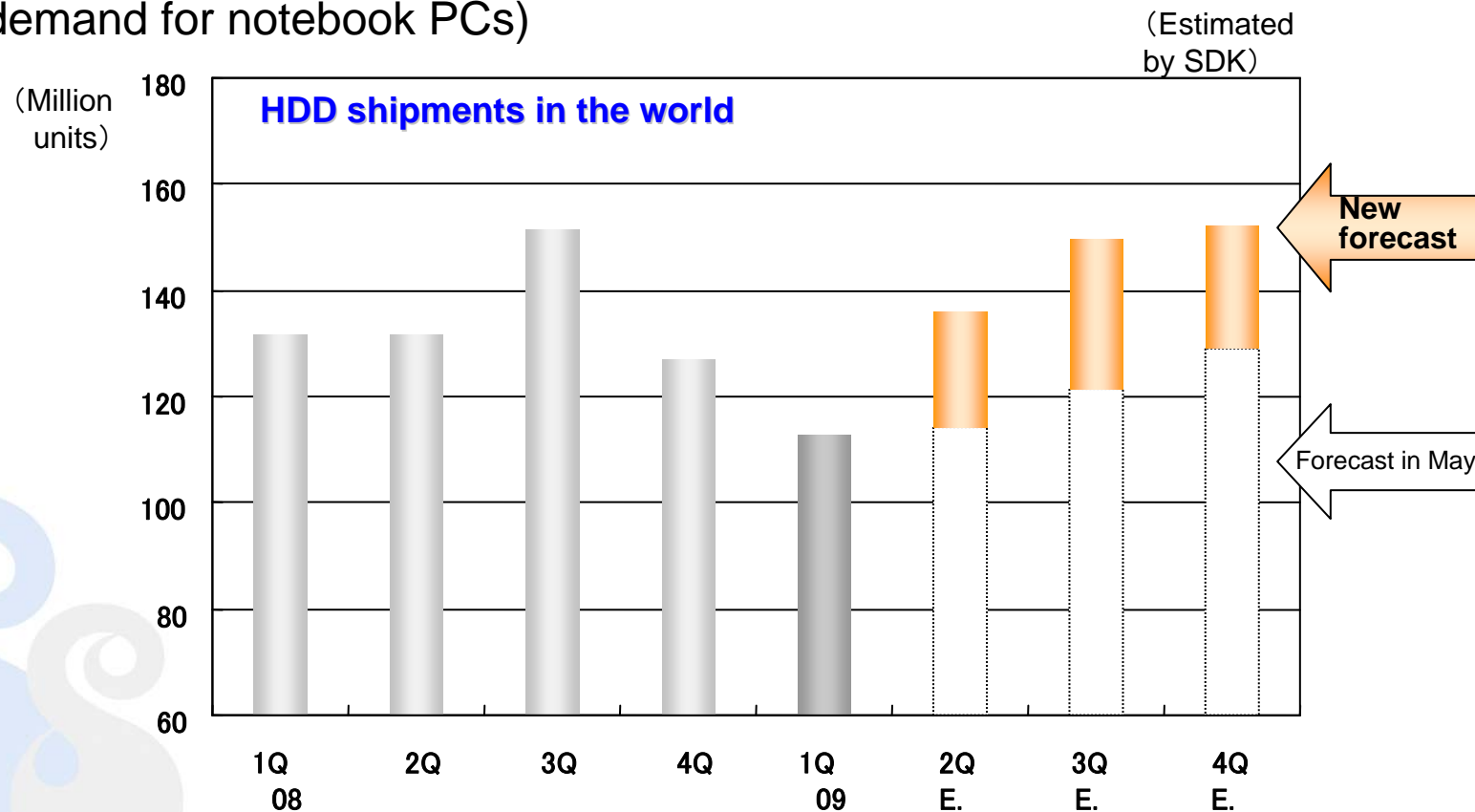
❑Aluminum cylinders for laser beam printers :

Delayed recovery of the U.S. market

❑Rare earth magnetic alloys : Prolonged inventory adjustments in the customer industry

b. HD business: HDD market forecast and SDK

- HDD volumes recovering quickly since 2Q, returning to the growth track
 - Recovered to meet actual demand, after drastic inventory adjustments in 1Q
 - HDD makers now expect that demand will recover to the 2008 peak levels.
 - SDK's plant will be in full operation in the second half 2009.
- In and after 2010, growth rate will be around 8-10%. (To be driven by growth in demand for notebook PCs)



b. HD business: Start-up of Showa Denko HD Yamagata

Start-up of new operation site in Yamagata

■ Through the consolidation of the HD media business of Fujitsu Limited, we are strengthening our presence in the markets for HD media for servers and mobile devices.

Effect of consolidation

- Capacity increase: 3 million pcs/m
 - ⇒ Total capacity of the Group
18 million pcs/m → 21 million pcs/m
- Strengthen HD media for servers
- Strengthen glass HD media for mobile PCs
- Improve technology through synergies
- Achieve the highest level of cost competitiveness
 - Optimized workforce; Low fixed costs



Showa Denko HD Yamagata K.K.

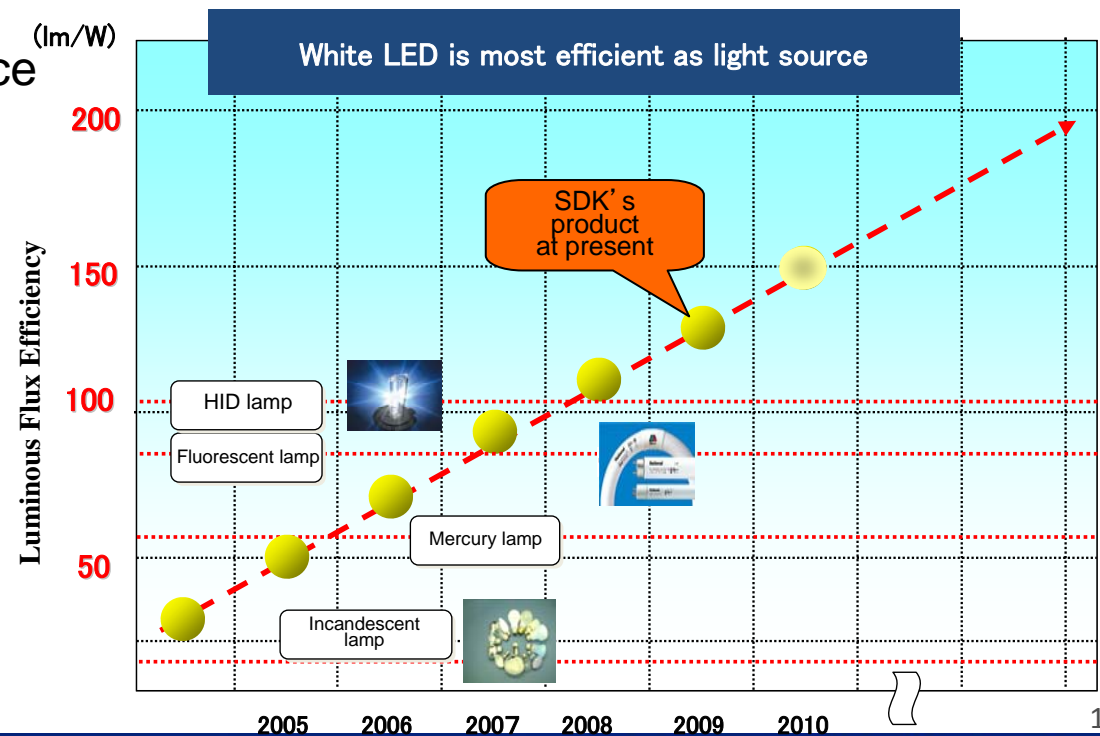
c. LED business: Advantages in ultrabright LED chips

■ InGaN

- Achieved the world's highest-level brightness and output
 - World's first commercial production based on four-inch wafers; pursuing the use of wafers with still larger diameters
- ⇒ Substantial improvement in productivity with proprietary Hybrid PPD™ process technology

■ AlGaInP

- World's highest brightness and long life; developing applications in automotive parts
 - New applications: as light source for plant growth facilities
- ⇒ Highest brightness at wavelength of 660 nm, best-suited for plant growth



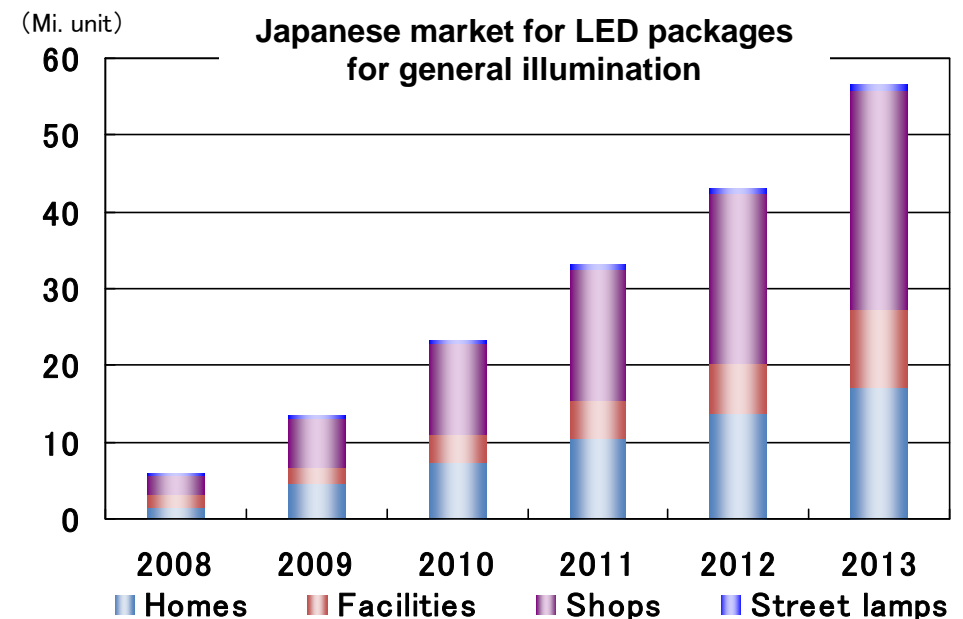
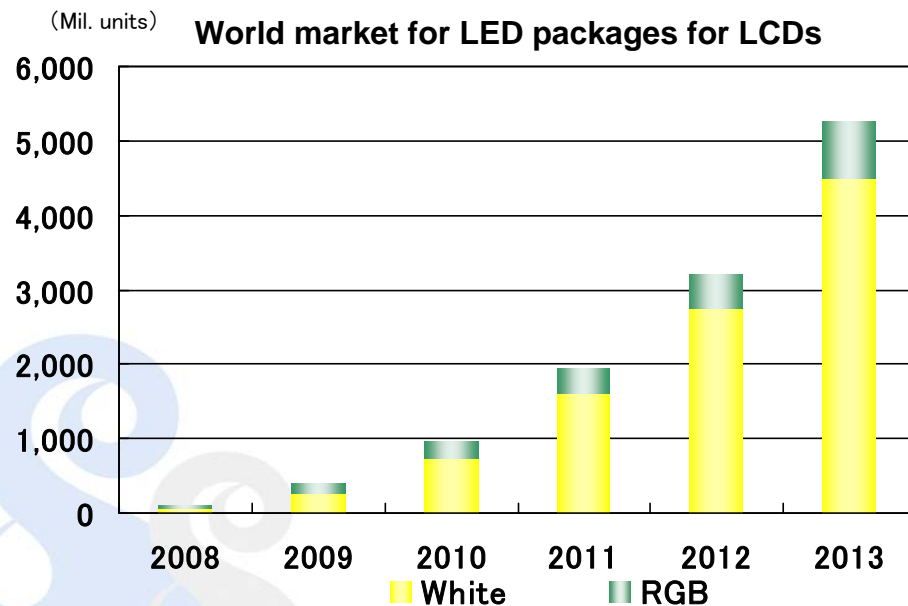
c. LED business: Expanding in response to market growth

■ **A huge market will appear in 2010 and after due to new applications in LCD TV backlight and general illumination**

- Present (2009) Small LCD monitors; notebook PC backlight
- 2010~ LCD TV backlight (Full-scale commercialization)
- 2013~ General illumination (Full-scale commercialization)

■ **Capacity expansion in response to market growth**

- **SDK's present capacity: InGaN: 200 million pcs/m; AlGaInP ultrabright: 100 million pcs/m**



Source: Fuji Chimera Research Institute

d. Performance forecast for 2009: Operating income

Back to growth track, after hitting the bottom in 1Q

First half

■ 2Q:

Amount of loss in 2Q is half that of 1Q.

■ Total for first half:

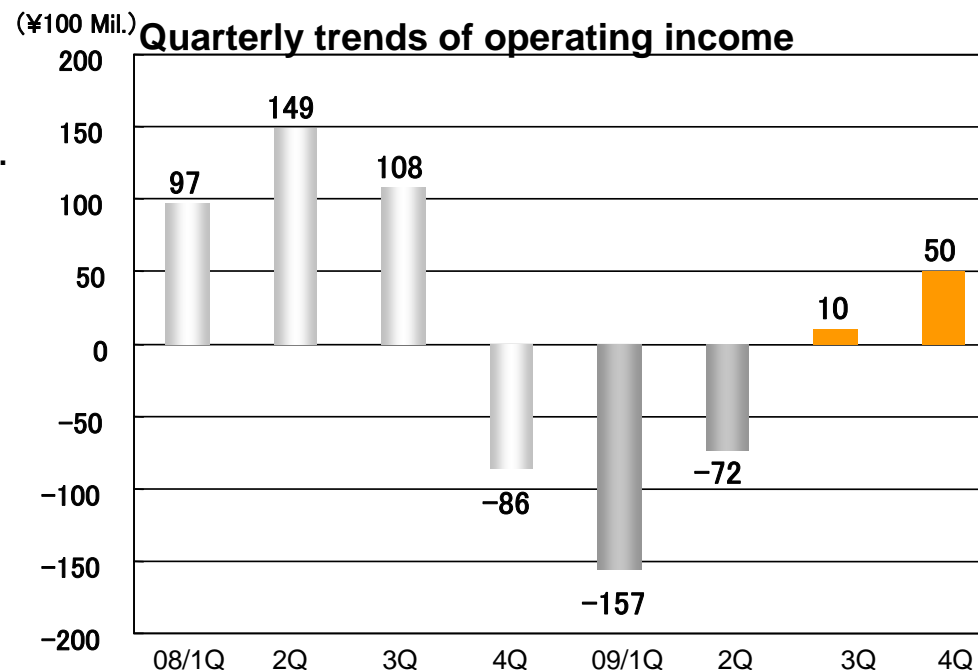
An improvement of ¥4.6 billion compared with our forecast in April
 (Forecast in April: - ¥27.5 billion
 → Actual results: - ¥22.9 billion)

Second half

■ 3Q: Start recording operating income

■ Total for second half:

Each segment will record operating income.



* Figures for 09/4Q and 3Q are estimates.

D. Performance forecast: Operating income by segment

Net sales and operating income by segment

(billions of yen.)

Segment		1Q 2009	2Q 2009	1st Half 2009	2nd Half forecast* 2009	Full year forecast* 2009
Petrochemicals	Sales	40.2	56.1	96.2	138.8	235.0
	O.I.	-0.5	2.6	2.0	4.5	6.5
Chemicals	Sales	19.8	27.0	46.8	49.2	96.0
	O.I.	-0.8	-0.3	-1.1	0.6	-0.5
Electronics	Sales	15.9	27.1	43.0	79.0	122.0
	O.I.	-9.3	-6.3	-15.7	0.7	-15.0
Inorganics	Sales	10.5	12.4	22.9	24.1	47.0
	O.I.	0.4	-0.1	0.3	1.7	2.0
Aluminum	Sales	34.7	43.0	77.7	92.3	170.0
	O.I.	-4.5	-2.3	-6.8	0.3	-6.5
HQ costs and other						
	O.I.	-0.9	-0.7	-1.6	-1.9	-3.5
Total	Sales	121.0	165.6	286.7	383.3	670.0
	O.I.	-15.7	-7.2	-22.9	5.9	-17.0

*Revised forecast announced on July 30, 2009

The forecast for the second half is calculated by deducting the first half results from the full-year forecast.

The above performance forecast is based on the information available as of July 30, 2009 and assumptions as of July 30, 2009 regarding risk factors that could affect our future performances. Actual results may differ materially from the forecast due to a variety of reasons, including market and exchange rate fluctuations.

e. Major steps for the 2009-2010 period

Performance forecast for 2009 and 2010

- Revised the “image” for 2010 from the figures announced in February
- Recovering profitability to return to the growth track

	2009 Estimate	2010 Forecast	(¥100 mil.) Target announced in Feb. '09
Net sales	6, 700	8, 000	9, 000
Operating income	−170	300	400
Profit rate (operating income basis)	−2. 5%	3. 8%	4. 4%
Interest-bearing debt at year-end	4, 200	4, 300	3, 600

e. Major steps for the 2009-2010 period

【Industry trends in 2010】

□ Petrochemicals

- LLDPE, EG and other derivatives will flow into the Asian market as a result of start-up of new capacities in the Middle East.
- Olefin supply will exceed demand, despite brisk demand from China.
- SDK will have scheduled maintenance in 2010 (once in four years).

□ HDD

- Shipment volumes of PCs in the world will return to growth, driven by brisk demand for notebook PCs.
- Supply-demand situation of HDDs will be the same as in the 2nd half 2009.
- PMR technology will be improved; discrete media will be introduced in 2011.

□ Automobiles

- Hybrid car production will increase.
- Slow recovery in general cars, except in the brisk Chinese market.

□ Electric arc furnace steelmaking

- Inventory adjustments will be completed in 2009. Slight increase is expected in 2010. However, return to peak demand will be delayed.

□ Semiconductors

- World demand will recover to around 90% of the 2008 levels.

e. Major steps for the 2009-2010 period: Competitiveness

■ Measures to strengthen base businesses and accelerate growth

I	Strengthening base businesses	<p>(Petrochemicals)</p> <ul style="list-style-type: none"> • Renew our ethylene plant during its scheduled maintenance in 2010. <p>⇒ One of the most competitive naphtha cracker in the world</p> <p>(Carbons)</p> <ul style="list-style-type: none"> • Establish an overwhelmingly strong position in large-diameter graphite electrodes in terms of quality and cost. • Increase competitiveness through drastic rationalization measures.
II	Accelerating growth	<ul style="list-style-type: none"> ▪ Contribution of Showa Denko HD Yamagata to profit growth ▪ Establish overwhelmingly strong technical advantages in our LED business and expand capacity to meet growing demand. • Establish a unit to expand businesses for advanced battery components.

■ Carrying out structural reform

I	<p>Optimizing production setup: Aiming to establish a setup in which we can secure profit at plant utilization rates of around 70%</p>	<ul style="list-style-type: none"> • Reorganization of production sites and lines <ul style="list-style-type: none"> – Consolidate organic chemicals plants – Suspend CFC-substitute gas plant – Reorganize HD media production sites • Implementation of personnel cost measures <ul style="list-style-type: none"> – Optimize workforce; reduce outsourcing costs – Reduce 400 employees in the aluminum business
II	<p>Implementing exit strategies</p>	<ul style="list-style-type: none"> • Sale of the capacitors business • Withdrawal from the sales of aluminum ingots to outside • Withdrawal from the commodity aluminum extrusions business (for construction materials)
III	<p>Drastic structural reform</p>	<ul style="list-style-type: none"> ▪ Reform the heat exchangers business
IV	<p>Accounting for impaired assets</p>	<ul style="list-style-type: none"> ▪ Recorded loss on impairment of fixed assets in Japan pertaining to heat exchangers and alumina.

- Cut labor costs by reducing workforce as well as curtailing and suspending operations. The amount of cost reductions will be ¥4 billion in 2009 and ¥3 billion in 2010.

I	Total workforce (consolidated)	<ul style="list-style-type: none"> • Reduce by around 940 from the end of 2008 (excluding an increase of approx. 360 following the consolidation of Showa Denko HD Yamagata) • Cut costs through employment adjustments at overseas subsidiaries for the heat exchanger and HD media operations
II	Remuneration for officers	<ul style="list-style-type: none"> ▪ Reduce by 15~25%
III	Salaries for employees	<ul style="list-style-type: none"> ▪ Managers' salaries cut by around 10% ▪ Bonuses for general employees also cut
IV	Curtailment/suspension of operations in Japan	<ul style="list-style-type: none"> ▪ Suspended operations at many plants in the first half '09 (Received employment adjustment subsidies)

Reduce costs by a total of ¥30 billion in 2009 and 2010

◇ Plan for 2009

- Increase the amount by ¥3 billion from original target.
¥12 billion (original) ⇒ ¥15 billion (revised target)

Details of additional measures

- ① Further cut in labor costs: ¥1 billion
- ② Reduction in outsourcing costs (purchasing efforts, etc.): ¥2 billion

	Original plan (Billions of yen)	Revised plan (Billions of yen)	Addition (Billions of yen)
Electronics	6.0	7.0	1.0
Aluminum	3.5	4.5	1.0
Inorganics	1.5	2.5	1.0
Chemicals	1.0	1.0	—

◇ Plan for 2010: ¥15 billion

1. 2009–2010: Structural reform and preparation for growth
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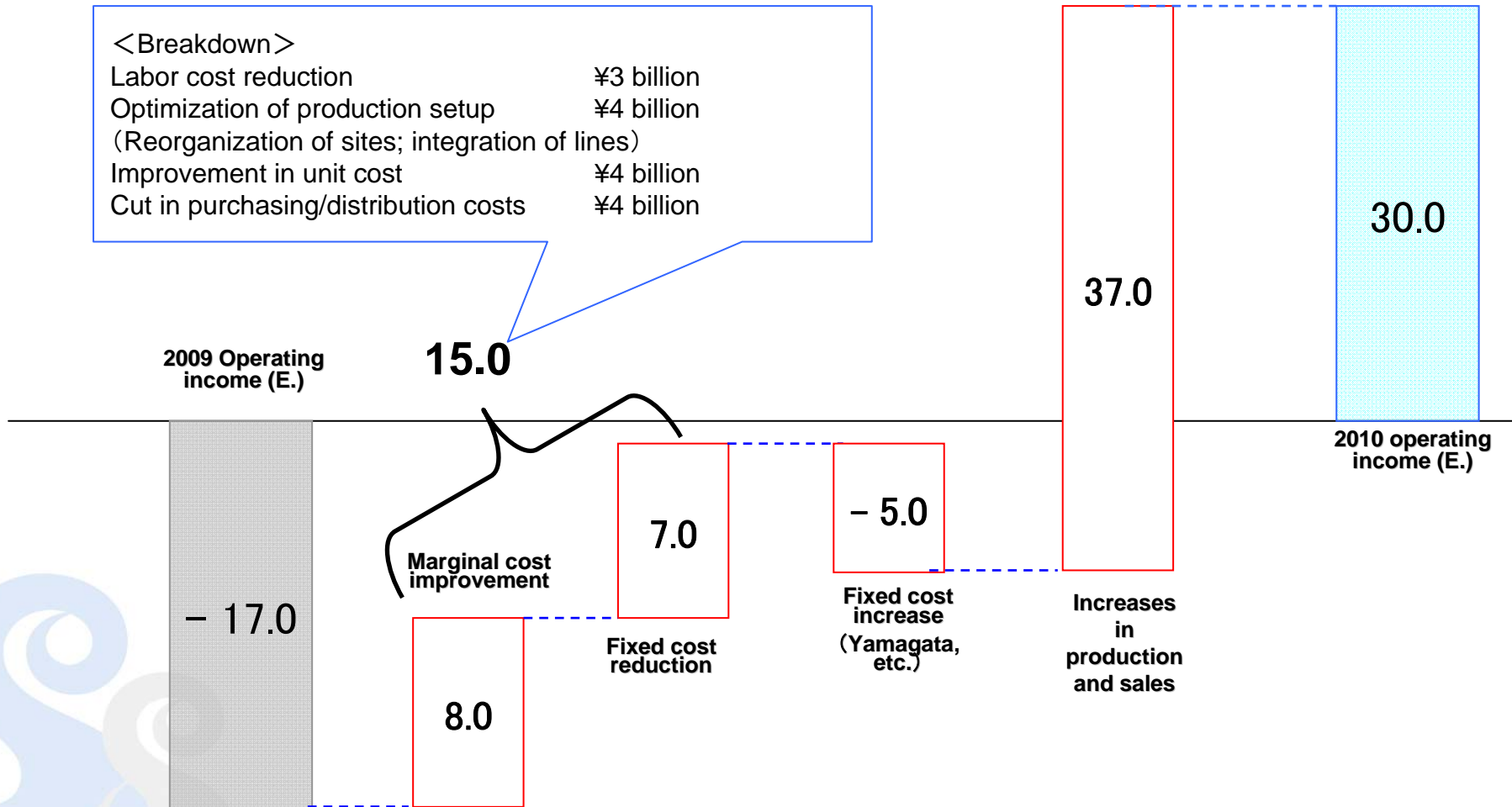


- Operating income for 2010: Improve by ¥47 billion from 2009

Structural reform efforts will result in an improvement of ¥15 billion.

(billions of yen)

<Breakdown>	
Labor cost reduction	¥3 billion
Optimization of production setup (Reorganization of sites; integration of lines)	¥4 billion
Improvement in unit cost	¥4 billion
Cut in purchasing/distribution costs	¥4 billion



<2009> Scheduled to record a total of ¥26 billion in extraordinary losses

Extraordinary losses in the first half	¥16.4 billion
▪ Loss on valuation of inventories	(¥5.5 billion)
▪ Loss on impairment of fixed assets —Heat exchangers (Japan), alumina, etc.	(¥8.4 billion)
Extraordinary losses in the second half	¥9.6 billion
▪ Structural reform of aluminum operations	(¥5 billion)

<2010> Expecting to record a total of ¥8 billion in extraordinary losses



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a. Basic policy for the 2011-2015 period

Contribution to society

2011–2015: Medium-term business strategy

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- Inorganic/metal & organic chemical technologies; “human strengths”
- Structural reform; creation of next-generation businesses in such areas as energy & resource conservation, environmental protection, and electronics.

**2009–2010:
Passion Extension**

Preparing for the next business plan for 2011 and after

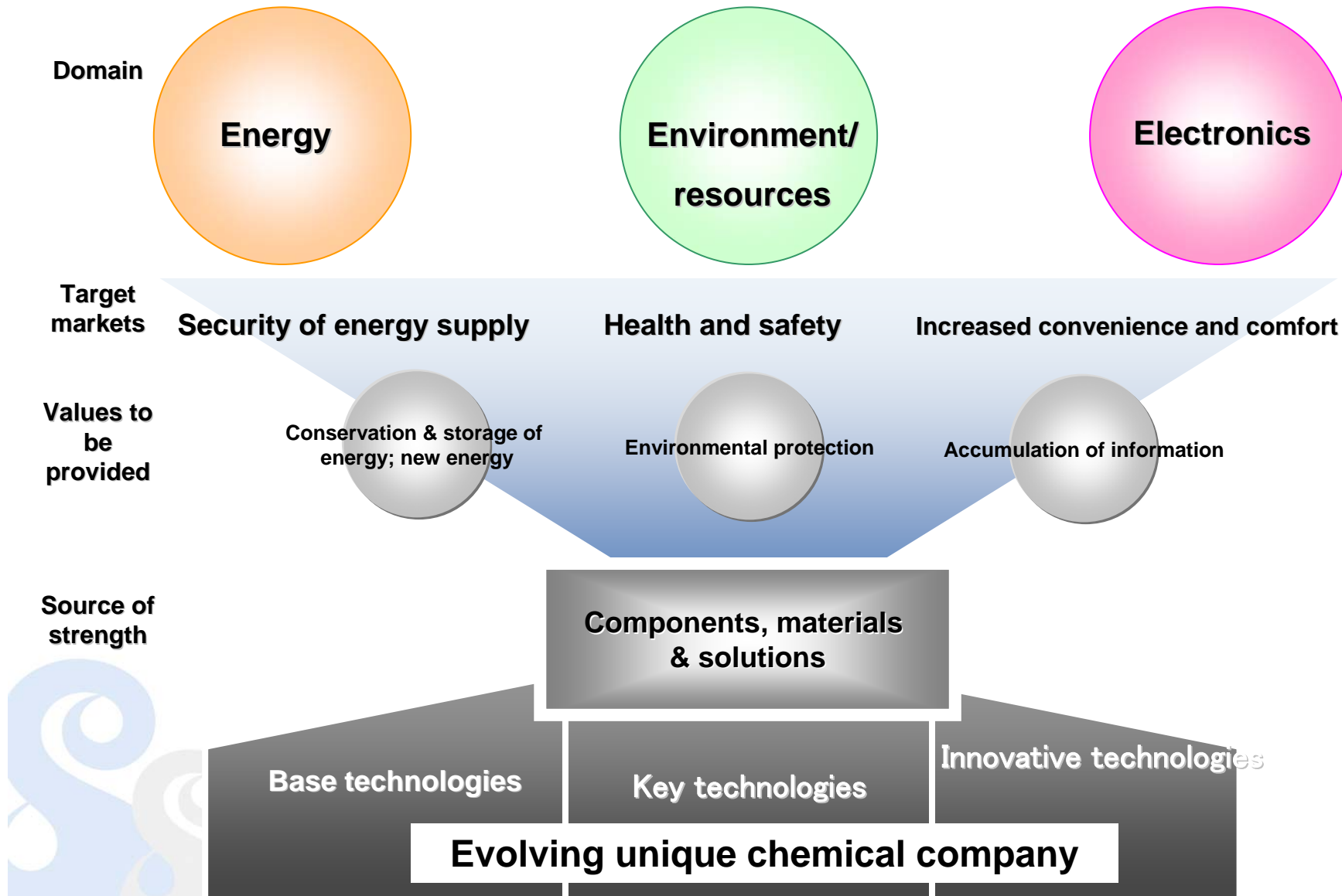
- Structural reform in response to changes in environment
- Growth strategy based on identification of growth areas

**2006–2008:
Passion Project**

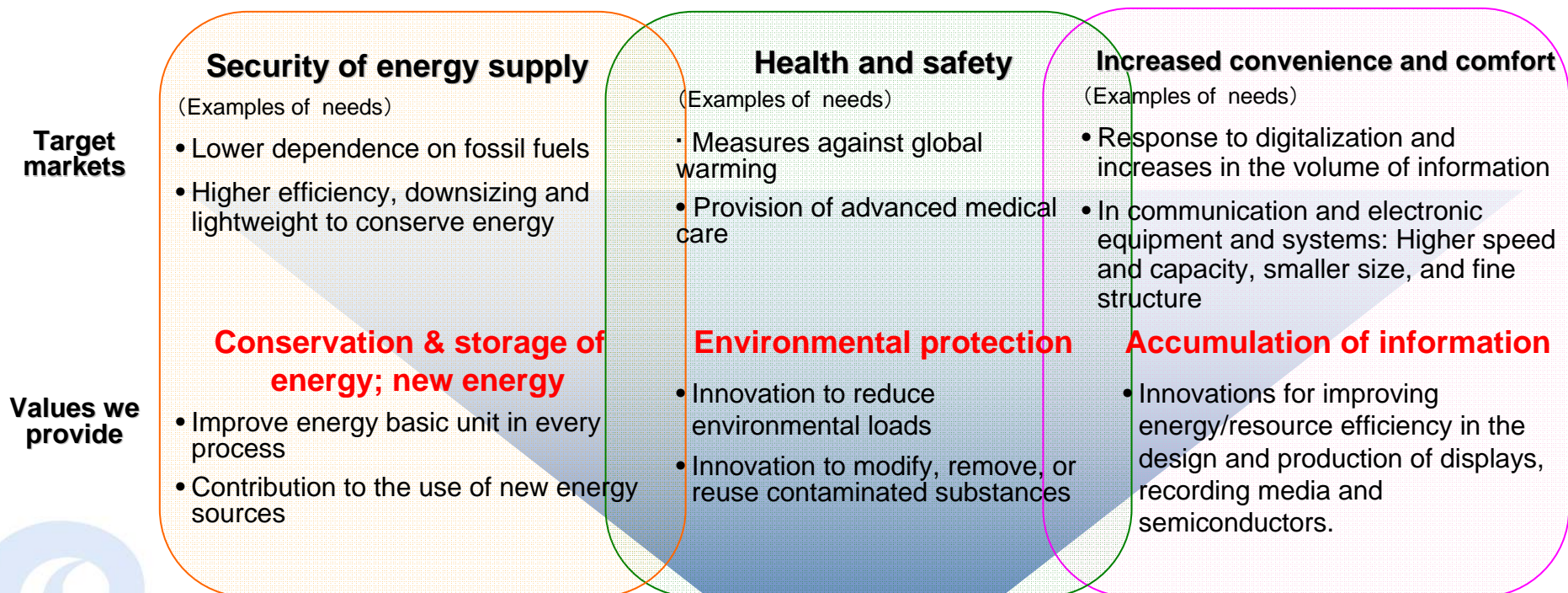
Laying the groundwork for sustainable growth

- Accelerate “new growth driver” businesses
- Continuous expansion in profit
- Improvement in financial strength

b. Evolving unique chemical company: Concept



We will provide components, materials and solutions to meet the needs for energy security, health and safety, and increased convenience and comfort.



Evolving unique chemical company

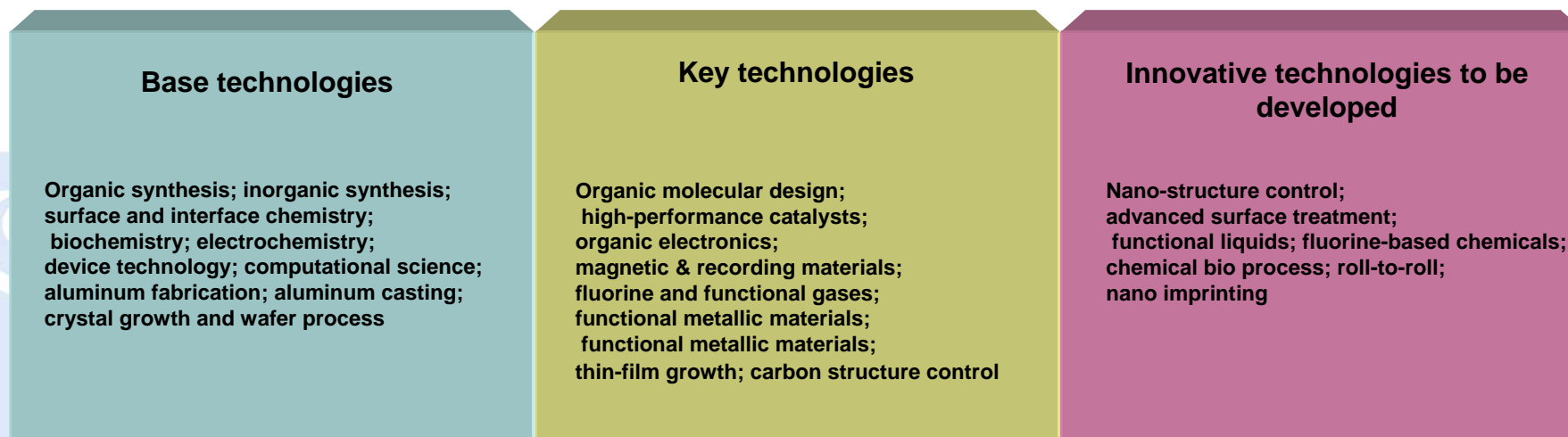
2. 2011–2015: Medium-term business strategy for new growth
 b. Evolving unique chemical company: R&D strategy



Meeting social needs as an evolving unique chemical company

	【Energy】	【Environment & resource】	【Electronics】
Next-generation	Next-generation solar cells; LED artificial light source; next-generation battery components	Next-generation biomass; new magnetic alloys; advanced chemical processes	Next-generation storage and post-photolithography materials
New	Organic EL; fuel cell components; SiC power devices	Innovative optical materials; photocatalysts	Fluorine-based chemicals; functional monomers; nano-scale functional materials
Growth	Ultrabright LED chips; fine carbon; rare earth magnetic alloys; battery packaging; cooling system for power semiconductors in hybrid cars	Allyl alcohol derivatives; eco-friendly solvents; separation/purification materials	Reactive functional materials
Base	Graphite electrodes	Aluminum cans; olefins	HD media; semiconductor-processing materials; high-purity aluminum foils for capacitors; aluminum cylinders for LBP

Developing new technologies



c. Business portfolio

New portfolio broken down by segment

※Businesses in blue letters are explained later.

	Next-generation	New	Growth	Base	Need structural reform
Petro-chemicals			Allyl alcohol derivatives Eco-friendly solvents	Olefins	Acetyl derivatives Specialty polymers
Chemicals	Biomass Advanced chemical process	Functional monomers	Separation/purification materials Reactive functional materials	Acrylonitrile Amino acids Ammonia Chloroprene	Industrial gases
Electronics	Solar cells LED artificial light source Magnetic alloys Battery components Storage Post photolithography materials	SiC power devices Organic EL Fuel cell components (platinum-substitute catalyst; separators) Fluorine chemicals New optical materials Nano functional materials	Ultrabright LED Fine carbon (LIB carbon material) Rare earth magnetic alloys	HD media Semiconductor-processing materials	
Inorganics		Photocatalysts	Fine carbon (resin composite)	Graphite electrodes Abrasives/refractories	Alumina
Aluminum			LIB packaging Cooling system for power semiconductors in hybrid cars	High-purity aluminum foils for capacitors Aluminum cylinders for LBP Aluminum cans <i>Shotic</i>	Automotive heat exchangers

Advanced battery components

Approaching the growing market through interconnections of inorganic/metal and organic chemical technologies

■ Lithium-ion battery (LIB) components

Quickly developing high-performance products based on proprietary carbon/aluminum technologies

- Anode material (SCMG™)

- Adopted for cars (world's first): One domestic and two foreign firms (South Korea, Europe) have decided to adopt the product.
- Increased adoption for power tool applications

- Additives in anode/cathode (VGCF™): Adopted by major companies at home and abroad

- Laminated packaging (aluminum foil): Leading share in the world market (more than 50%)

■ Fuel cell components

- Platinum-substitute catalysts*: Developed very low-cost and long-life catalysts.

- Separators: Exclusive supplier for stationary PAFC applications.

For PEFC*: low-cost and lightweight; output can be increased further by approx. 30%.

* These technologies have been developed under the projects of the New Energy and Industrial Technology Development Organization (NEDO).

New businesses for future growth: some examples

Organic EL

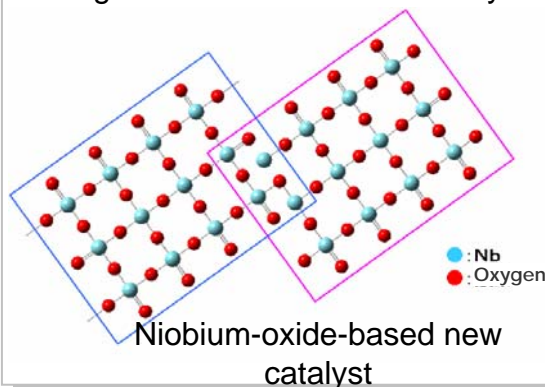
- Achieved a 40% light output (world's highest) based on a new device structure.
- To start sample shipments in 2010 for illumination.



White EL devices

Platinum-substitute catalysts*

- 1/20 in cost compared with platinum
- Longer life due to lower solubility



Carbon separators*

- Low-cost, lightweight and potential for additional 30% increases in output (boron-added carbon, adhesive resin, hydrophilic treatment)



Bipolar-type carbon separator

Evolving unique chemical company

* These technologies have been developed under the projects of the New Energy and Industrial Technology Development Organization (NEDO).

HD media business

We will establish an overwhelmingly strong position as an independent HD media supplier. This business is now classified as a base business that produces profit in a stable manner.

- The market will continue to grow at around 8-10% a year.
- We will take the following measures to establish an overwhelmingly strong position:
 - **Drastic improvement in efficiency by reviewing production sites**
 - Optimize production setup through consolidation; reduce fixed costs
 - Maximize capacity of existing facilities; improve the rate of return on invested capital
 - **Leadership in the development of next-generation recording technologies**
 - Joint development with makers of HDDs and equipment
 - Secure high-added-value as a result of technical advantages
 - **Further strategic M&A**

Petrochemicals business

Make our naphtha cracker one of the most competitive in the world;
thereby ensuring survival

- Complete the renewal of our ethylene plant during the scheduled maintenance in 2010
- Tie-up with the oil refining firm and derivative manufacturers within the complex
- Drastically strengthen organic chemicals operations
 - Continue to build optimum production setup
 - Strenuous efforts to launch new products
 - Increased sales of NPAC*;
 - Development of new products in the areas of allyl alcohol/allyl acetate derivatives

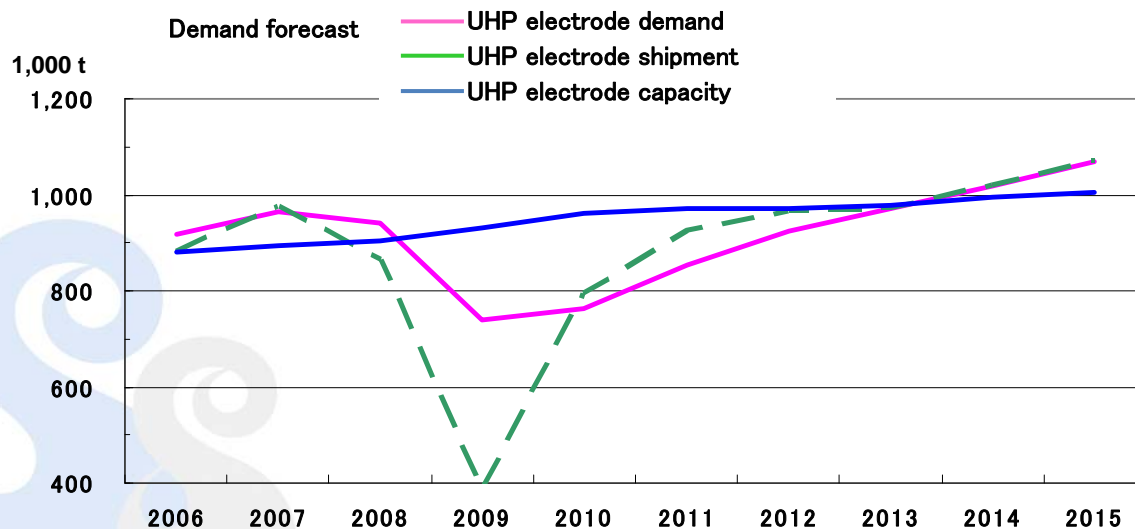


* NPAC: normal propyl acetate (eco-friendly solvent)

Graphite electrode business

Pursue expansion on a global scale based on our very strong competitive position in large-diameter electrodes

- Supply-demand balance will be achieved in 2012, resulting in recovery in profit.
- Our plant in Omachi, Japan, will strengthen its role as supplier of large-diameter electrodes and connecting pins, while seeking drastic rationalization.
- Expand capacities by 2015 in consideration of future demand.

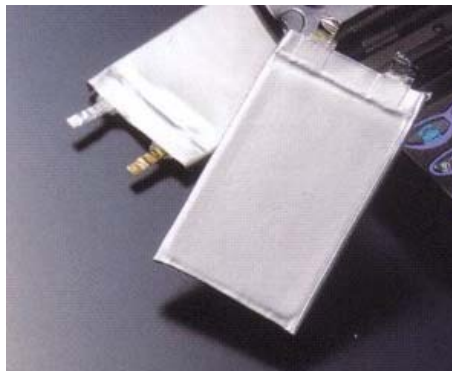


Estimated by SDK

Aluminum business

Focus on high-value-added product lines,
fully utilizing our proprietary technologies

- Complete structural reform by 2010 and build an optimum business setup.
- Strengthen business in the following market areas with high growth potential:
 - Aluminum cylinders for LBP: Establish a global optimized production setup and introduce innovative manufacturing processes
 - High-purity aluminum foils for capacitors: Increase market share and expand sales in overseas markets
 - Laminated packaging for LIB: Expand business for this “number one” product.
- Cooling system for power semiconductors in hybrid cars
 - Innovative technology; expanding supply to the hybrid/EV market



Laminated packaging for LIB



Aluminum cylinder for LBP

2. 2011–2015: Medium-term business strategy for new growth

Financial targets: Operating income and interest-bearing debt



- Achieve profit in 2010 by taking drastic measures

Return to growth track under the new medium-term consolidated business plan for 2011 and thereafter

- New businesses will account for 10% or more of overall operating income in 2015.

(¥100 mil.)

	2009 Estimate	2010 Forecast	2013 Image	2015 Image
Net sales	6,700	8,000	9,500	11,000
Operating income	−170	300	800	1,000
Profit rate (operating income basis)	−2.5%	3.8%	8.4%	9.1%
Interest-bearing debt at year-end	4,200	4,300	3,800	3,500

Exchange rate assumption: ¥95 to U.S. dollar in and after 2010

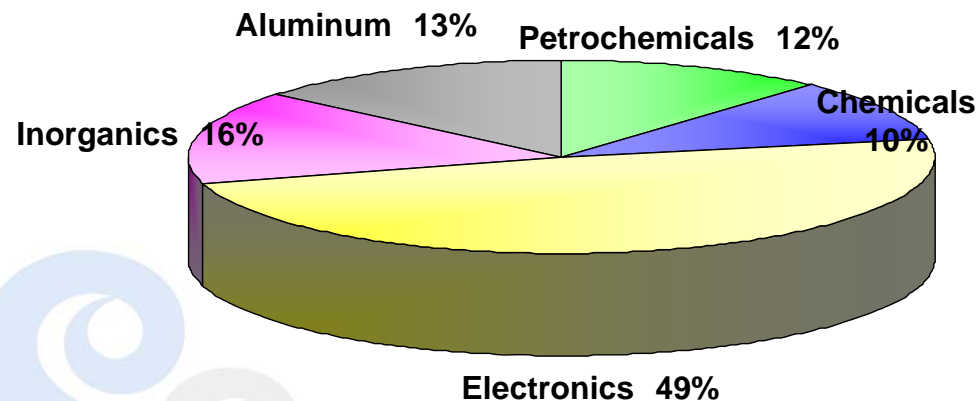
2. 2011–2015: Medium-term business strategy for new growth Financial targets: Capital expenditure



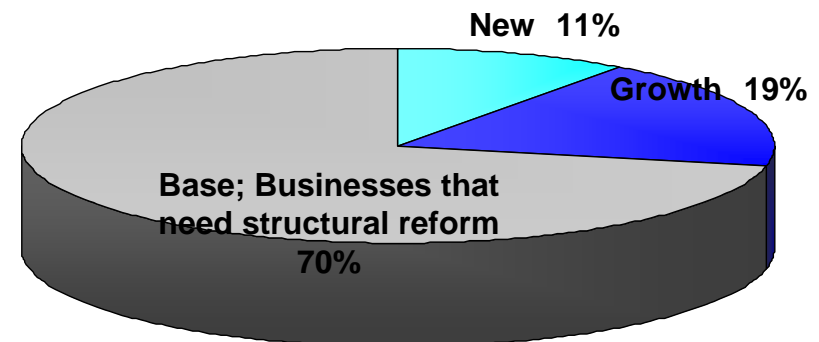
Capital expenditure in the 2011–2013 period will total ¥200 billion.
(Total depreciation expenses in the same period: ¥175 billion)

- Half of the budget will be appropriated to the growing Electronics segment.
- 30% will be spent for new/growth businesses.

We will also make aggressive investments in the HD media and graphite electrode businesses (both classified as base businesses).



By segment



By portfolio classification

R&D expenses in the 2011-2013 period will total ¥60 billion.

- Preferential allocation to the new and growth businesses.
- Also aggressively spend R&D expenses for the HD media business, which is classified as a base business.

