

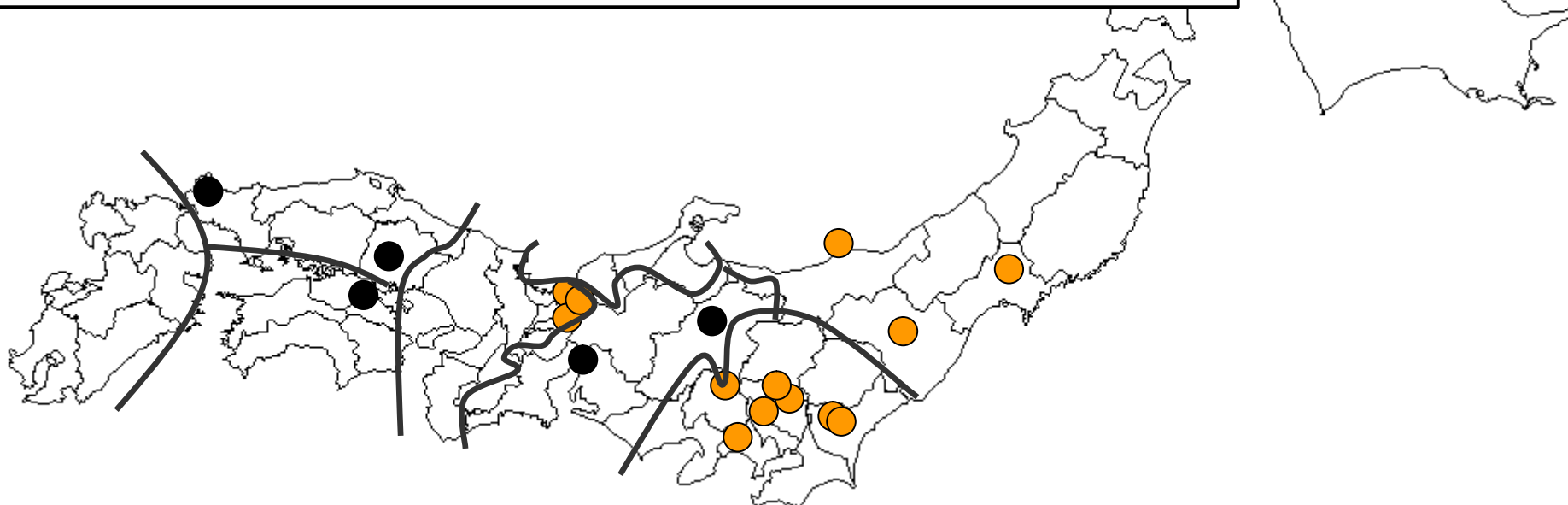
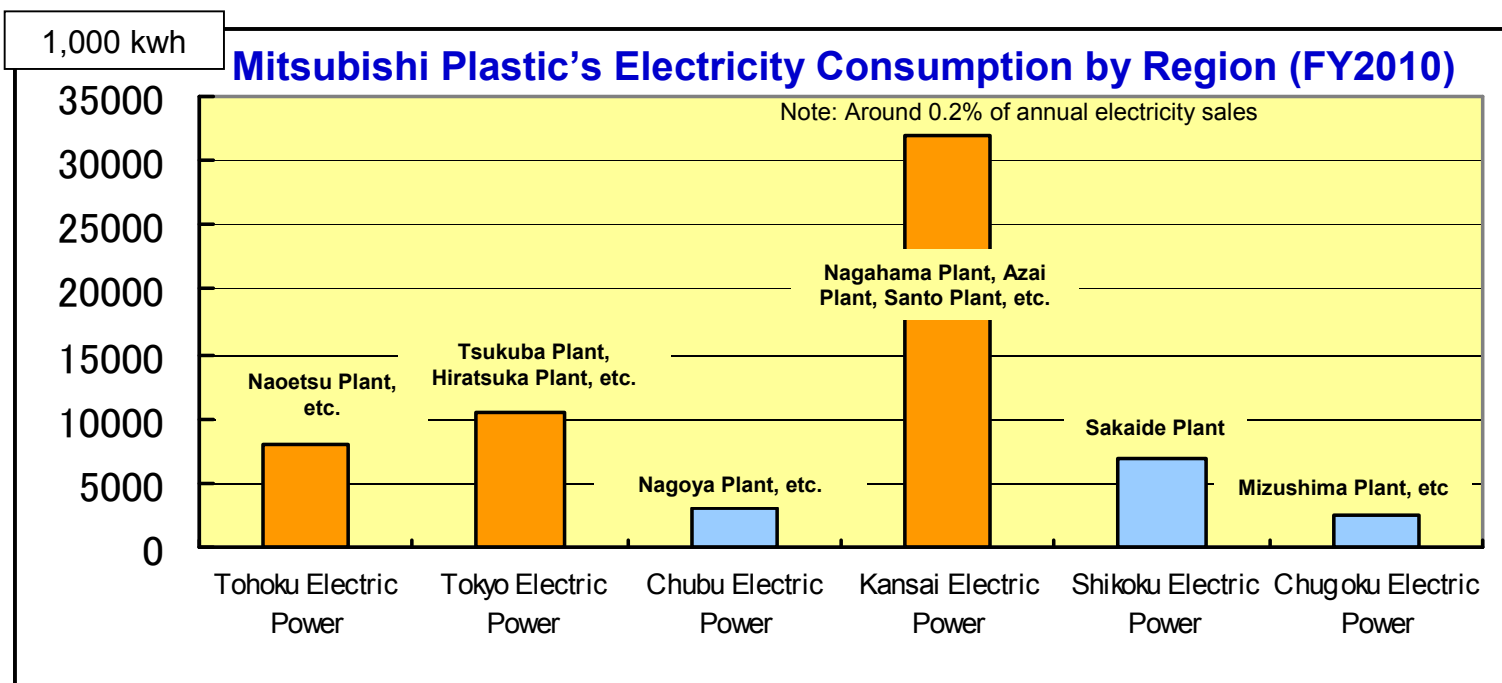
New Mid-Term Business Plan
APTSIS15-Plus
(FY2011–FY2015)

Business Briefing



July 13, 2011
Hiroshi Yoshida, President and CEO
Mitsubishi Plastics, Inc.

Electric Power Map



- Review on **APTSIS 10**, the previous Mid-Term Business Plan
- New Mid-Term Plan, **APTSIS 15-Plus**
 - Basic policies and numerical targets
 - Business portfolio reform
 - Strategy for growth businesses and creation business
 - Overseas strategy
 - R&D strategy
 - Embodiment of KAITEKI

Earnings

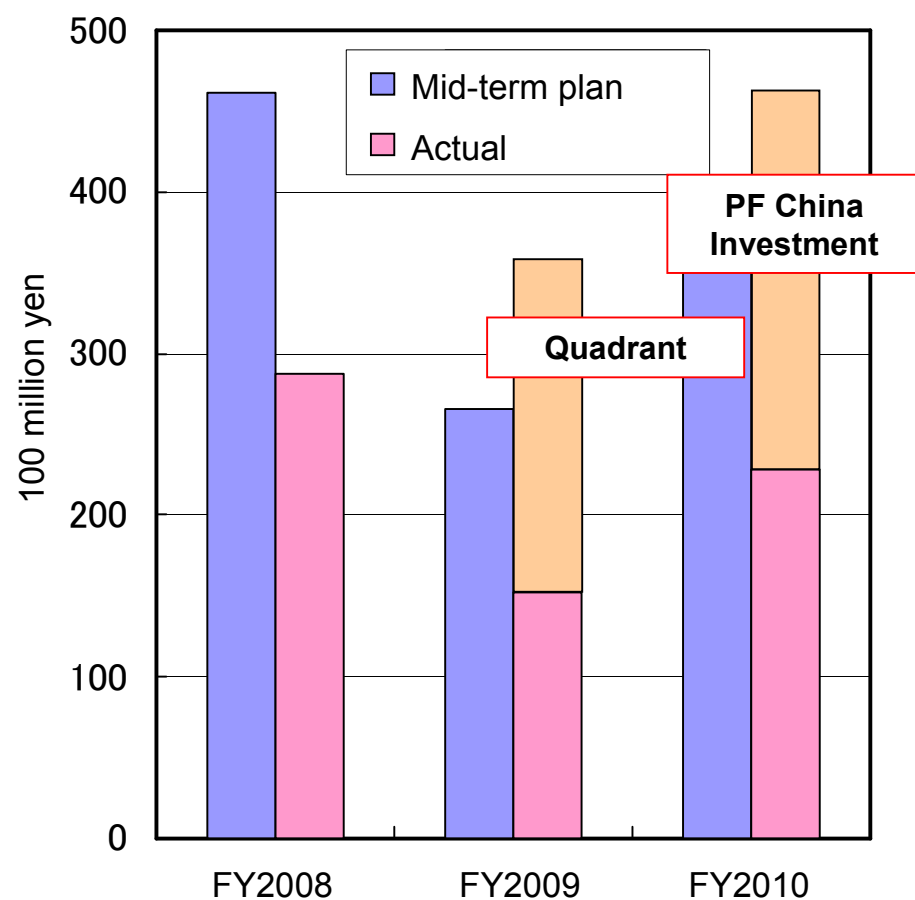
	FY2010 (actual)	FY2010 (targets)
Net sales	382.0 billion yen	470.0 billion yen
Operating income	16.6 billion yen	34.0 billion yen
ROS	4.3%	7.2%
Net D/E ratio (end of the fiscal year)	1.51	0.78
Overseas sales income ratio	37.5%	30.0%

Review on APTSIS10

Investments–Plans and Actual

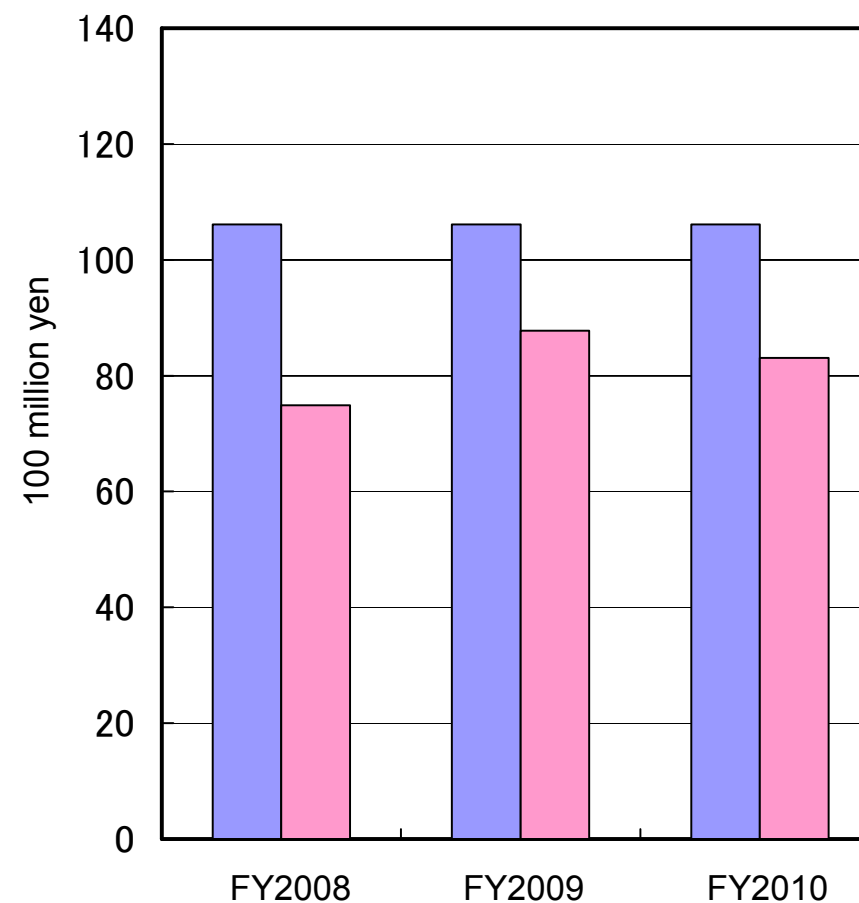
Capital expenditures and investments

Plan: 107.8 billion
Actual: 112.8 billion



R&D Investments

Plan: 31.8 billion
Actual: 24.6 billion



Review on APTSIS10

Major investments

May 2009 (announced)

**Strategic alliance with
Quadrant AG**



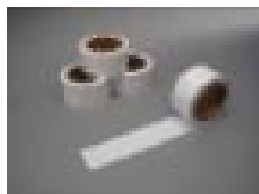
August 2008 (announced)

**New Dia Moulding factory
in Slovakia**



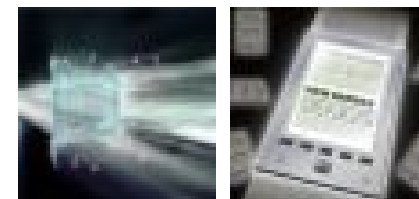
August 2009 (completed)

**New LIB Separator
production facilities**

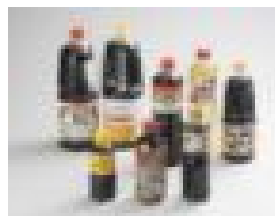


February 2011 (announced)

**New High Gas Barrier Film
production facilities
(Tsukuba Plant)**

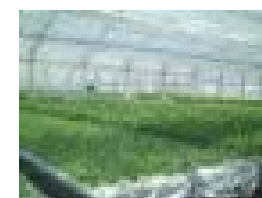


April 2011 (completed)
**Semi-heat-resistant
PET bottle line
(Hanyu Plant)**



May and June 2009 (announced)

**Purchase of the Agricultural High-
Tech Division of Taiyo Kogyo
Commercialization of plant factories**



September 2009 (completed)

**AQSOA coating facilities (Hiratsuka
Plant)**

May 2010 (completed)

**AQSOA powder production facilities
(Naoetsu Plant)**



March 2011 (completed)
**Alumina Fiber
production facility
expansion
(Naoetsu Plant)**



September 2010 (decided)

**New production line for Polyester Film
Suzhou in China**

April 2013 and April 2015 (expected to
be completed)



Major Structural Reform of Business and Realignment of Group Companies

- 2008– Reformed the pipe material business (disposed of some facilities, partially closed sales offices)
- 2009 Reformed the U.S. Polyester Film business (suspended some facilities)
- 2009 Acquired Ryoka MACS Corp. and transformed Etsuryo Co., Ltd. into subsidiary
- 2009 Restructured commissioned manufacturing companies (merger of Ryoko Tekunika Co., Ltd. and Ryoka Tekunosu Co., Ltd.)
- 2009 Transformed MKV Platech Co., Ltd. into a wholly-owned subsidiary
- 2009 Restructured the agricultural materials business (merged subsidiaries, etc.)
- 2009 Launched a comprehensive partnership with Kodama Chemical Industry Co., Ltd.
- 2010– Reformed construction materials business (abolished or merged organizational units and improved business efficiency)
- 2010 Established Dia Packaging Materials Co., Ltd. (merger of Kyowa Business Co., Ltd. and Diahozai Co., Ltd.)
- 2010 Established Mitsubishi Plastics Marketing Co., Ltd. (spun off sales of the Environmental & Housing Materials, Lifeline, and Plate businesses into a separate company)

New Mid-Term Business Plan

APTSIS 15-Plus

(FY2011–2015)

Duration: 5 years (April 2011–)

STEP 1: FY2011–FY2012

STEP 2: FY2013–FY2015

1. **Accelerate portfolio reform**

Clarify business areas to focus on → Promote portfolio reform → for growth, creation, and progress

2. **Strengthen the basic businesses and reforming business model according to a paradigm shift**

Make organic business grow, Respond to changes in the industrial structure and lifestyle

3. **Turn the creation business into profitable**

Commercialize the creation business force(nurturing business) and bring them into the black without fail

4. **Accelerate overseas business development**

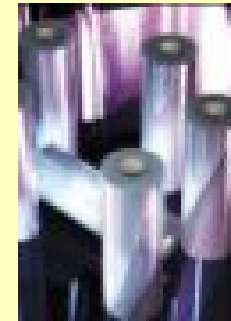
Promulgate the global mind to all employees and turn it into DNA of the company, Improve operating profit ratio in overseas business

5. **Reinforce the financial aspects**

Reinforce the business foundation and improve D/E ratio by promoting RBI Step 2 activities

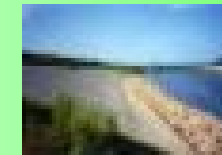
■ High-Performance Film

- Upgrade functionality → provide products of the world highest-level
- Maintain or raise the presence in specialty field
- Respond to paradigm shift and revise portfolio



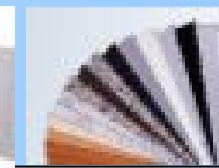
■ Environment & Life Materials

- Implement bold structural reform
- At home—shift to developing niche fields; Overseas—expand into emerging countries
- Make effective use of sales companies



■ High-Performance Molded Materials & Parts

- Introduce highly-added value and expand, or accelerate global synergies
- Expand value chain from materials to parts and establish a composite business
- Reorganize and reform unprofitable businesses



Numerical targets and basic business indicators



Target Indicators and Resource Allocation Plan

	FY2010 (actual)	FY2015 (target)
Net sales	382.0 billion yen	620.0 billion yen
Operating income	16.6 billion yen	55.0 billion yen
ROS	4.3%	8% or more
Net D/E ratio	1.51	1.0 or less
Overseas sales income ratio	37.5%	45% or more

Resource allocation plan:

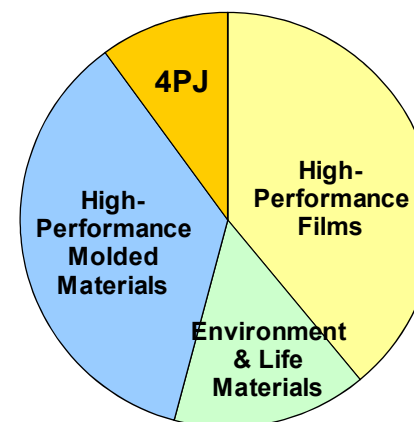
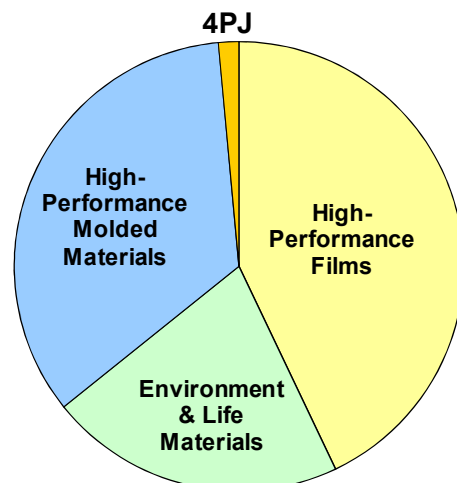
R&D investment	50.0 billion (total over five years)
Capital expenditures and investments	150.0 billion yen (total over five years)

Net Sales and Operating Income by Field

Net sales

FY2010 (actual) Sales 382.0 billion yen

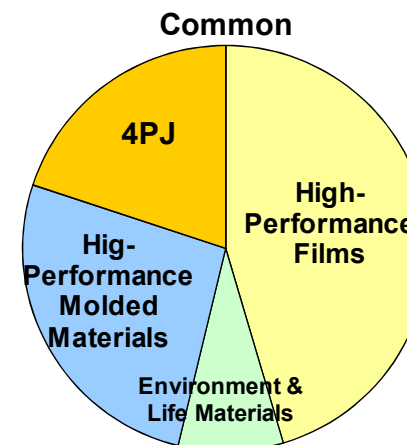
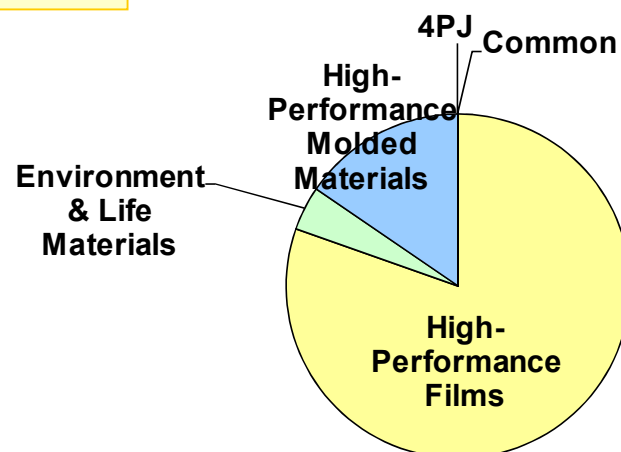
FY2015 (projection) Sales 620.0 billion yen



Operating income

FY2010 (actual)
Operating income 16.6 billion yen

FY2015 (projection)
Operating income 55.0 billion yen



Categorized by Profitability, Market Presence & Attractiveness

Next-Generation Growth Business (6)

- ◆ Organic photovoltaic modules and materials
- ◆ Organic photo semiconductors
- ◆ Advanced performance products
- ◆ Agribusiness solutions
- ◆ Healthcare solutions
- ◆ Sustainable resources

Growth Business (11)

◆ Performance Products ◆ Health Care ◆ Industrial Materials

- ◆ White LED lighting and materials
- ◆ Lithium-ion battery materials
- ◆ FPD components
- ◆ Performance composite materials
- ◆ High performance molding products
- ◆ Specialty chemicals
- ◆ Water treatment system and services
- ◆ Pharmaceuticals
- ◆ High performance graphite
- ◆ Performance polymers
- ◆ MMA/PMMA

Business to be Restructured (15)

Naphtha crackers, etc.

Cash-Generation Business (18)

- ◆ Recording media ◆ Performance films ◆ Food ingredients
- ◆ Diagnostics & support for new pharmaceutical development
- ◆ Terephthalic acid ◆ Coke
- ◆ PHL/BPA/PC ◆ PP, etc.

Portfolio Reform (Business)

Creation Business

- ◆ Water vapor adsorbent AQSOA
- ◆ Advanced fiber composites
- ◆ Barrier Films, PV cell parts and materials
- ◆ Separators for LIBs
- ◆ Next-generation agriculture
- ◆ Biopolymers
- ◆ Bridge deck waterproofing

Businesses that will become core or highly profitable businesses in the future

Growth Business

- ◆ Multilayer co-extruded film
- ◆ Polyester films
- ◆ Optical films for displays
- ◆ Carbon fibers
- ◆ Alumina fibers
- ◆ Engineering plastic products

Businesses truly driving company's growth

Realignment/Restructuring Business

Lifeline, housing-related products, etc.

Businesses that require reform

Stable Business

Films for food products and construction materials, agricultural films, composite materials, etc.

Businesses that are expected to generate stable profits

Policy: Strengthen a tie with users by product development capability

Multilayer Co-Extruded Films

Polyester Films

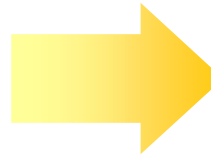
Films for Displays

Carbon Fibers

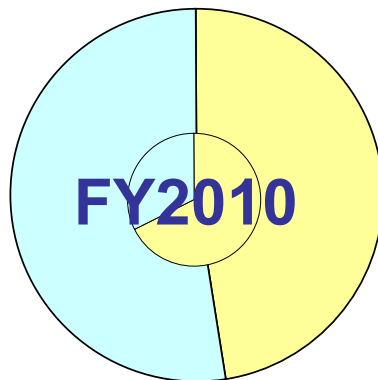
Alumina Fibers

Engineering Plastic Products

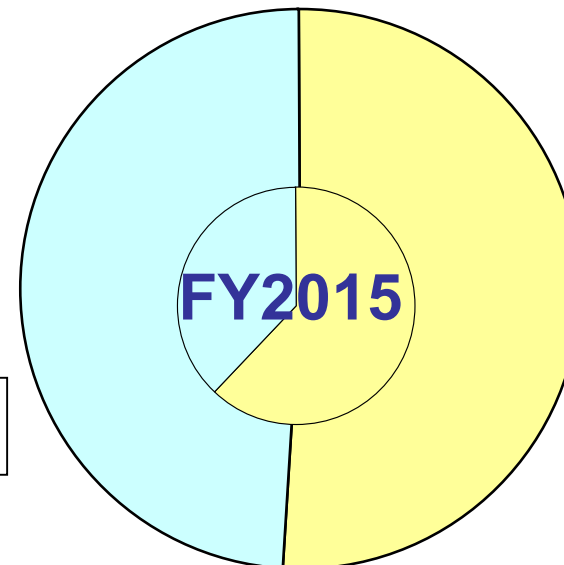
Net sales : 140.0 billion yen
Operating income: 15.0 billion yen



Net sales: 230.0 billion yen
Operating income: 30.0 billion yen



Outer circle: Net sales
Inner circle: Operating income



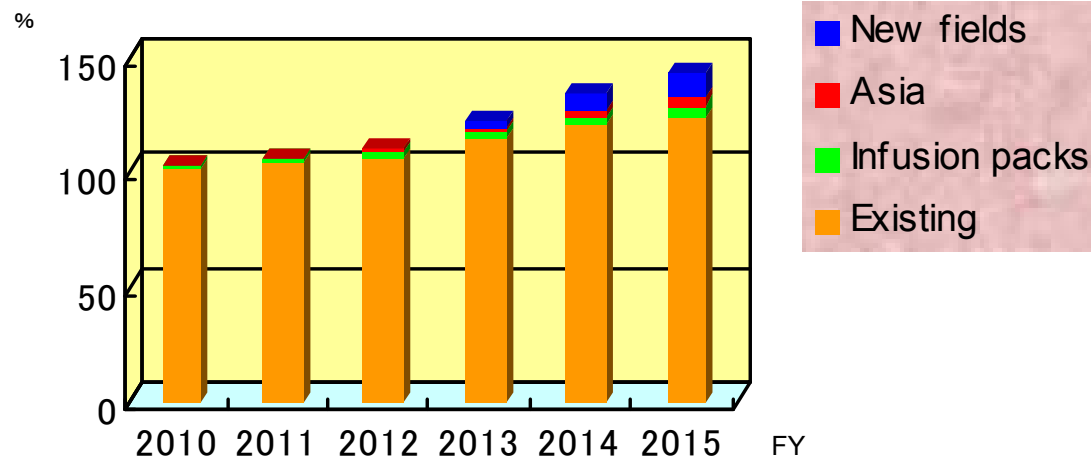
■ Multilayer Co-Extruded Film 'DIAMIRON'

Top share in the Japanese market (estimated by Mitsubishi Plastics) for deep-squeezed food product packaging (ham, sausage, etc.)

Proprietary multilayer technology provides films with various functionalities that meet the needs of customers

Future Business Plan–

- Work to develop new fields such as **medical uses** while securing earnings from the Japanese deep-drawn packaging market
- In addition, **develop the Asian market.**



Started supplying the film for infusion bags in 2010

■ Bi-Axial Oriented Polyester Film 'DIAFOIL'

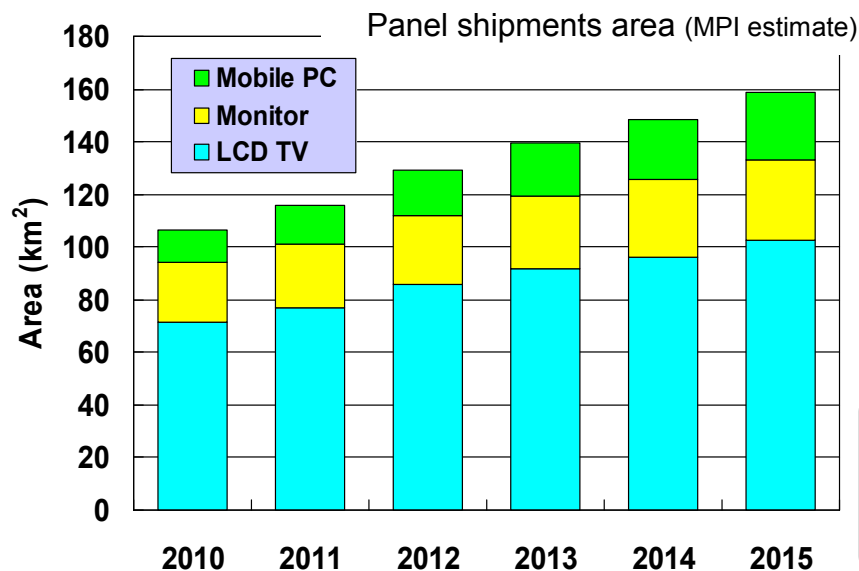
Top manufacturer in the world of optical polyester film.

The film is characterized by thorough quality management and development capability to meet needs.

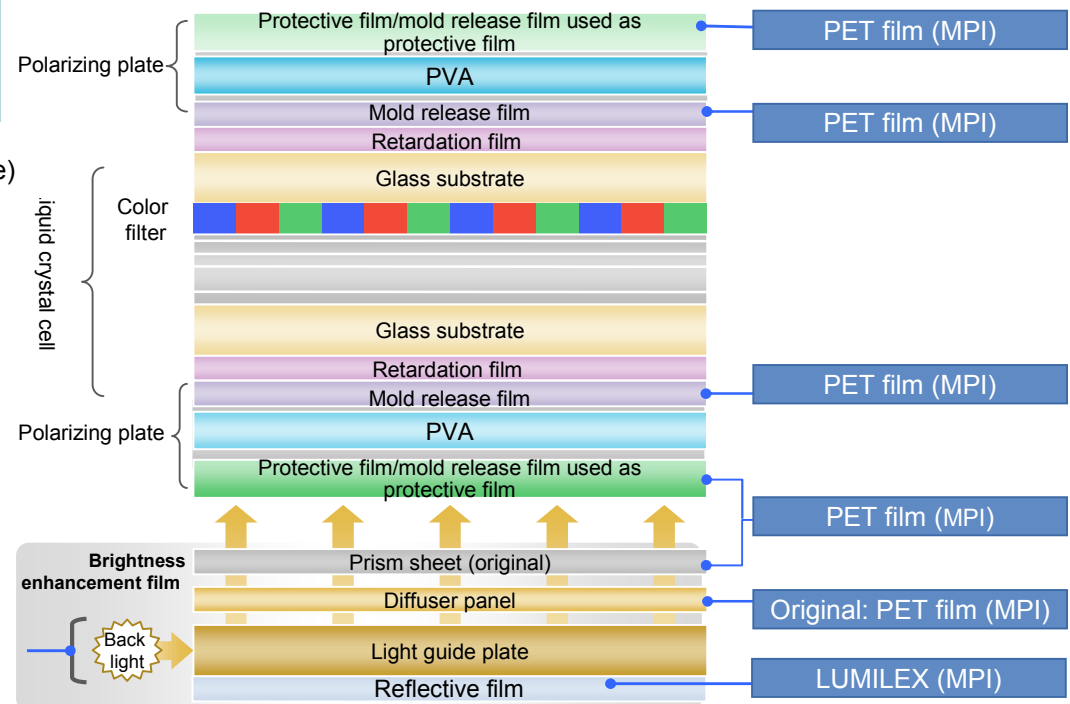
New production line started operation in March 2010 (15,000 tons annually). Planned facility expansion in Suzhou, China (two lines, 45,000 tons)

Future Business Plans–

- Maintain position as top global manufacturer in the FPD field
- **Capture top position in Chinese FPD market**
- **Develop and introduce new products** in the various fields including PV cell field.



■ Use in FPD



Global Network for Polyester Film

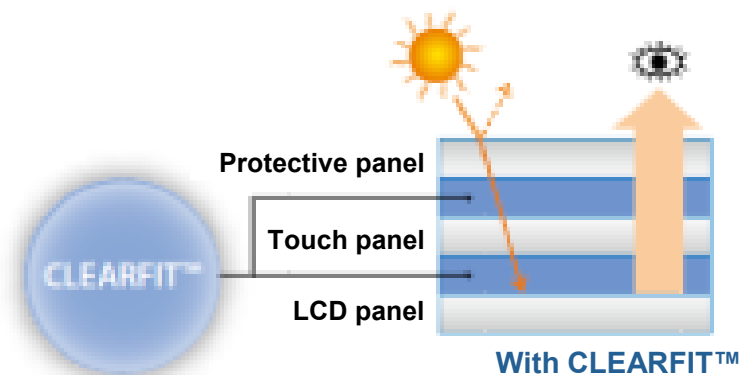
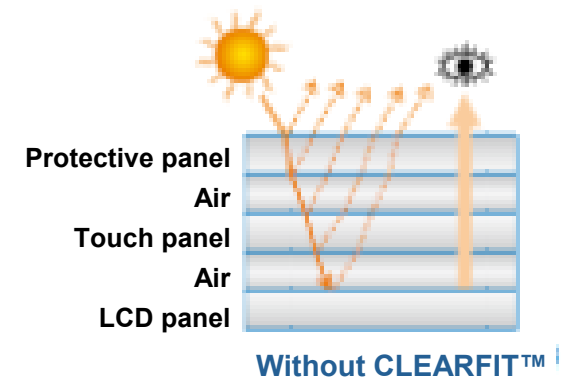
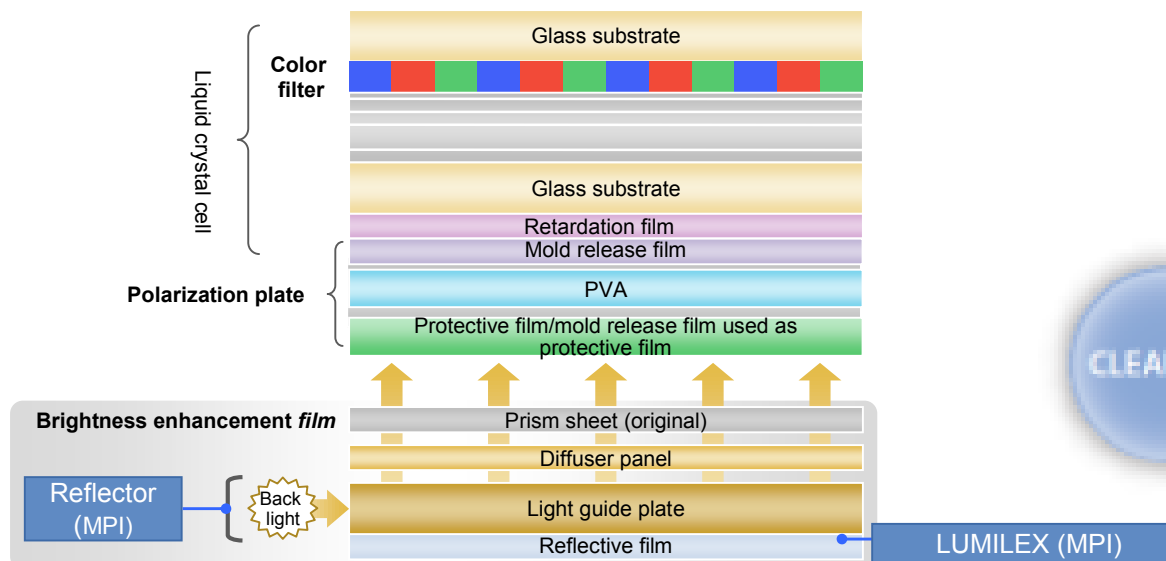


■ Optical Films for Displays

Develop products such as **CLEARFIT™**, optical transparent adhesion sheet that improves visibility for products such as smartphones, and **LUMILEX**, an olefin-based highly reflective film for backlight units

Future Business Plan–

- Expand use of CLEARFIT™ for smartphones and electronic signs
- Create a LUMIREX presence in FPD field.



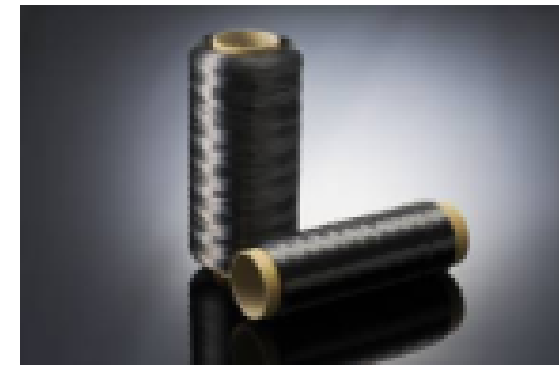
Reduces diffusion and improves contrast

■ Pitch-Based Carbon Fiber 'DIALEAD'

Pitch-based carbon fiber with **the top market share in the world**
Mainly used for motorcycle brakes, robot hands for transporting liquid crystal glass, etc.
Developed making use of high rigidity and thermal conductivity of pitch-based carbon fiber

Future Business Expansion–

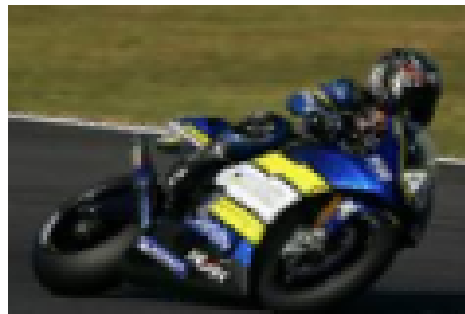
- Spread a use in industrial fields such as carbon brakes for automobiles and large-scale processing facilities
- Expand new applications
- Generate synergies with Mitsubishi Rayon's PAN-based carbon fiber
- Launch sales in emerging countries such as China
- Expand annual production capacity up to **1,450 tons** by FY2015



Robot hands (Provided by Yaskawa Electric Corporation)



Carbon brakes (Provided by Moriwaki Engineering)



Carbon composite rolls



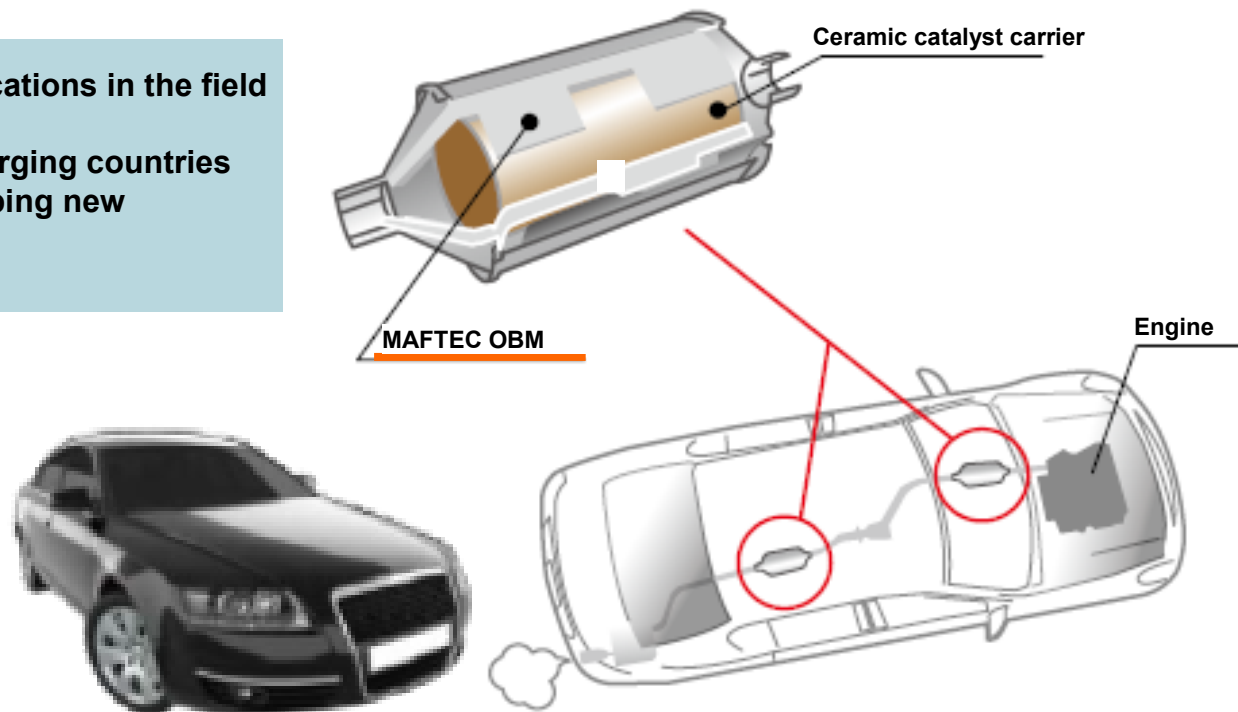
■ Alumina Fiber 'MAFTEC'

Alumina Fiber with size stability that can be used even at temperatures of 1,600°C.
Mainly used as a cushion material (seal) for exhaust gas treatment equipment on cars and insulation for high-temperature furnaces.

Most widely used in the world as a cushion for exhaust gas treatment equipment.
Increased production capacity at the Naoetsu Plant (300 tons) in 2011 and plan to expand production capacity at the Sakaide Plant (800 tons) by 2012.

Future Business Expansion–

- Develop new markets and applications in the field of insulation
- Capture demand for cars in emerging countries
- Expand the business by developing new applications

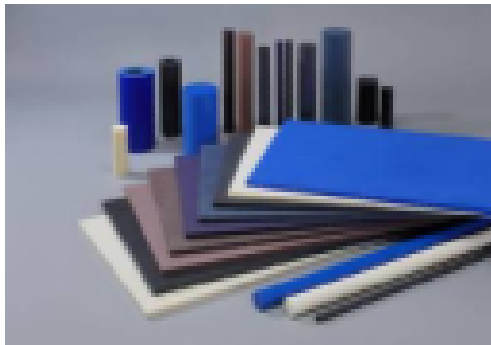


■ Engineering Plastic Products

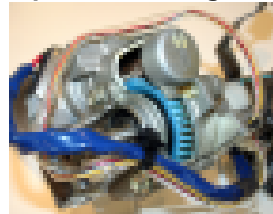
Expand in line with Quadrant Group, **the largest company in the world** in engineering plastics (launched a strategic business alliance in 2009)

Quadrant Group operates in countries throughout the world, particularly the U.S. and Europe (37 offices and plants in 21 countries).

Launched Quadrant Polypenco Japan, mainly to develop markets in Asia (July)



Gears for electric power steering



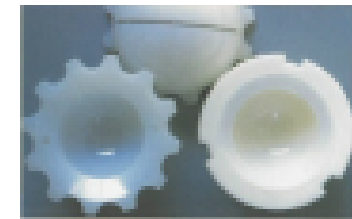
Guide rail for conveyor belts



Liners for trucks

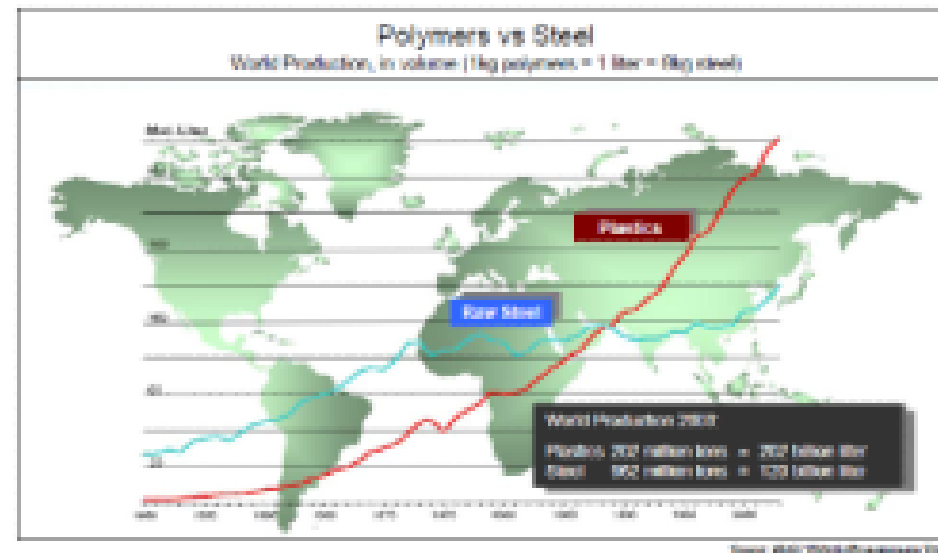


Artificial joints



Future Business Expansion–

- Develop new applications and new markets
- Further develop demand as alternative of metals
- Launch projects that generate synergies

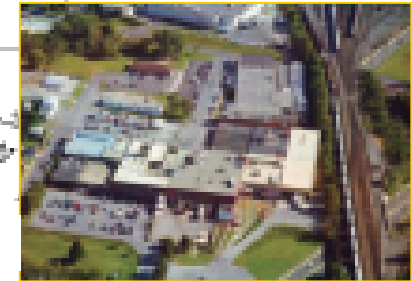


Quadrant Group's Offices and Production Bases

 **Quadrant Group Sales Offices and Production Bases**
(37 offices and bases in 21 countries)



Lenzburg (Switzerland)



Reading (U.S.)



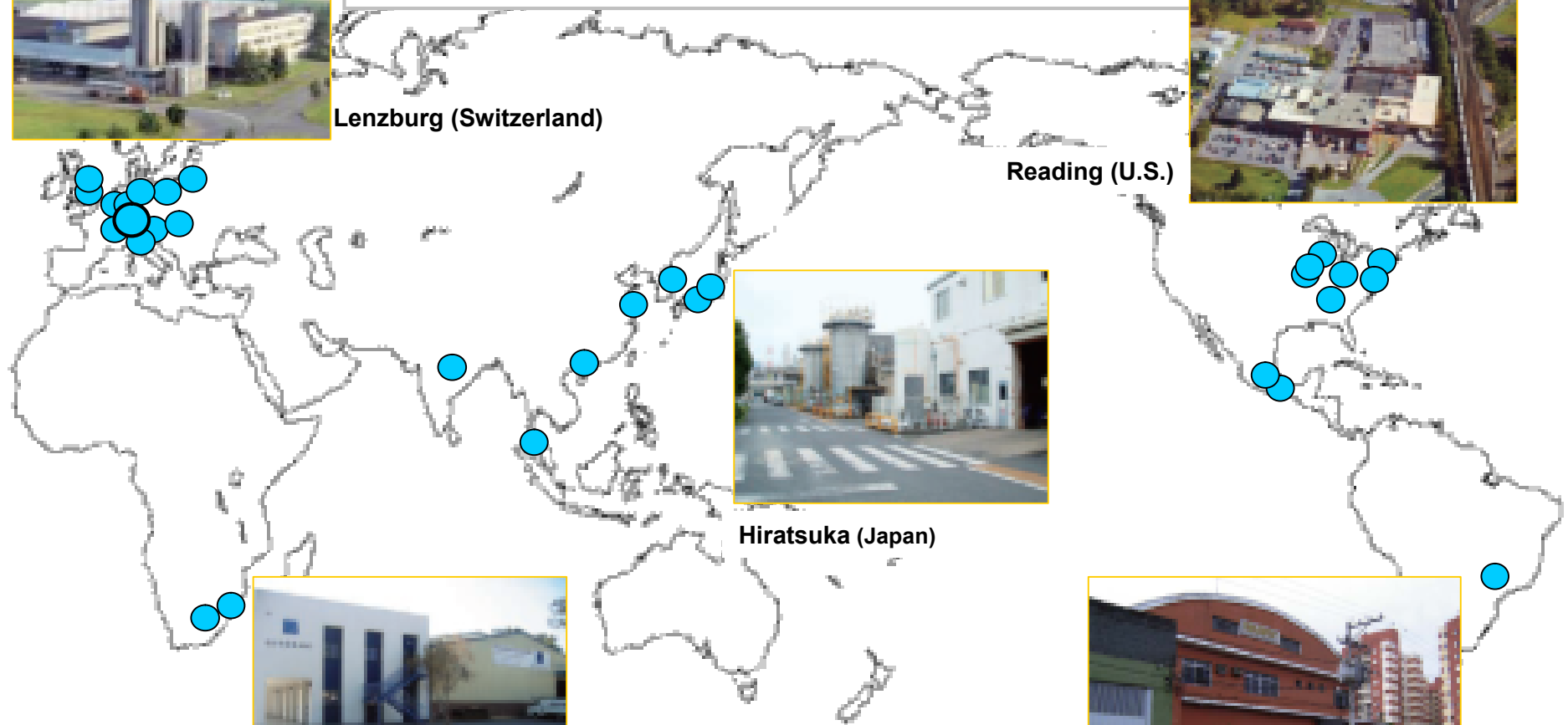
Hiratsuka (Japan)



Johannesburg (South Africa)



São Paulo (Brazil)



4 Projects + 3 Businesses

AQSOA

AFC

Barrier Films and PV Cell
Parts and Materials

Separators for LIBs

Next-Generation
Agriculture

Biopolymers

Bridge Deck
Waterproofing

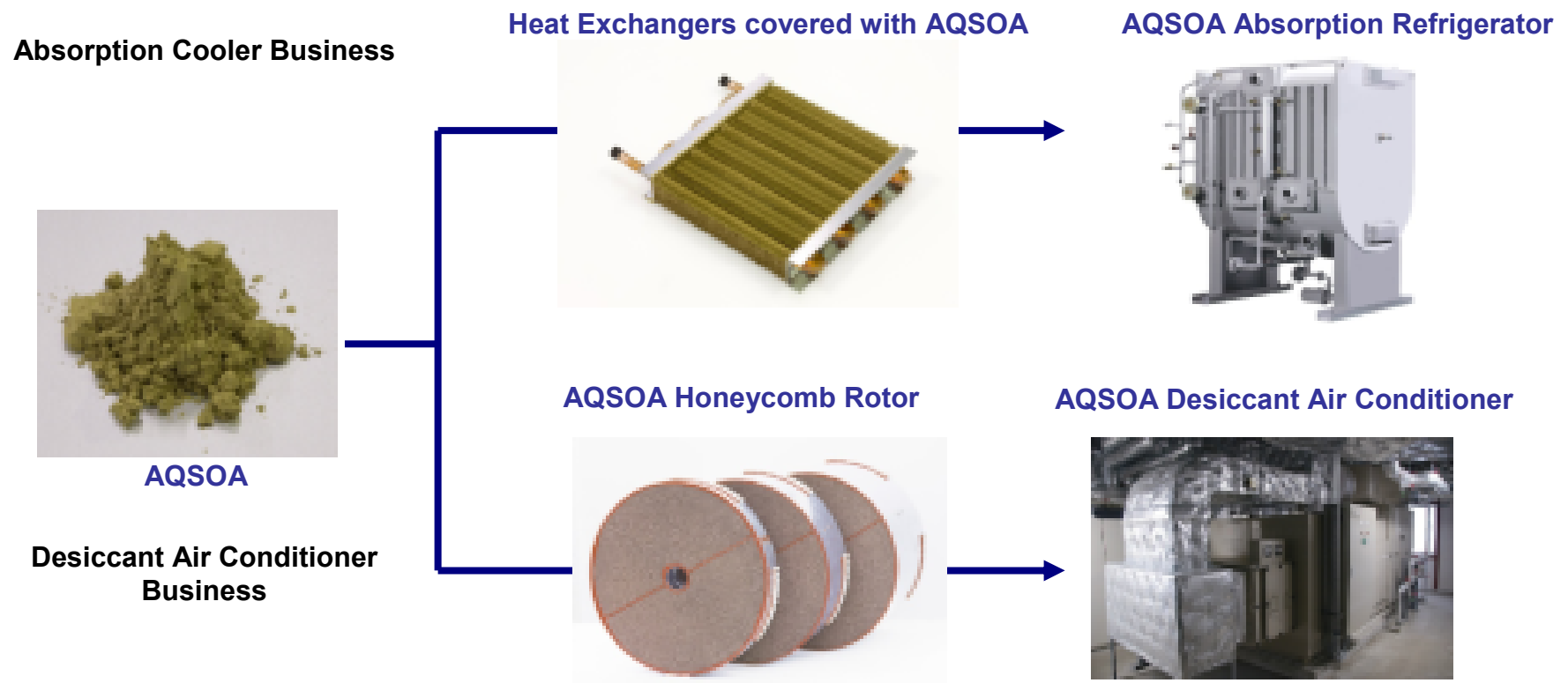
Numerical Targets for the Four Projects (FY2015)

Net sales: Around 10% of total sales

Operating income: 20% of total operating income or more

Zeolitic Water Vapor Adsorbent AQSOA

- New material developed by Mitsubishi Chemical Corporation that absorbs and releases water vapor at low temperatures
- Make air conditioning and humidity control possible, using low-temperature waste heat (60°C-100°C) and solar heat
- Launch in markets both in Japan and overseas as a material for energy efficient parts and materials that can make effective use of thermal energy



Zeolitic Water Vapor Adsorbent AQSOA

2008 Succeeded in running an absorptive freezer using solar heat
(jointly developed with Maekawa Manufacturing)

2009 Constructed a line to apply AQSOA to heat exchangers
(Hiratsuka Plant)
Launched test sales of the heat exchangers and desiccant air
conditioners

2010 Constructed line to produce granular form (Naoetsu Plant)
Used in small heat pumps produced by Invensor (Germany)
Test sales for heating equipment produced by Valliant
(Germany)



Won various awards including the
Nikkei BP Technology Award and
Monozukuri Nippon Grand Award



Verification facilities at
Naoetsu Plant

- The market will grow from now on, and there is strong **potential demand** (200 billion yen market in 2020)
- Expand to overseas markets, such as Germany
- Create a supply system to meet demand; grow to more than 10.0 billion yen in sales in FY2015

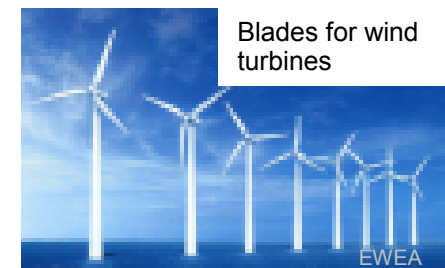
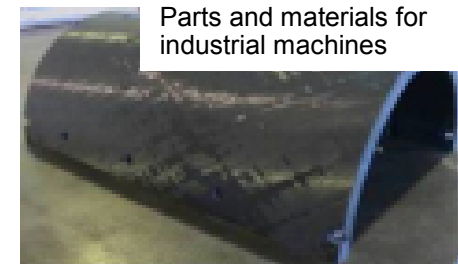
Advanced Fiber Composites (AFC)

Develop new businesses for AFC that incorporate materials such as carbon fibers
Provide functions such as high rigidity, high-durability, light-weight structure, heat dissipation, and heat resistance
Enter the market of the fields such as environment and energy, industrial machines, automobiles, and LEDs.

Expand applications

- Parts for industrial machines (for liquid crystal, semiconductors, etc.)
- Light-weight compressors
- LED-related parts and materials
- Light-weight parts and materials for wind turbines (large blades, etc.)
- Light-weight parts for automobiles

Achieve net sales of more than 10.0 billion yen in FY2015 through a development of AFC parts and modules that integrate various materials, mainly carbon fiber

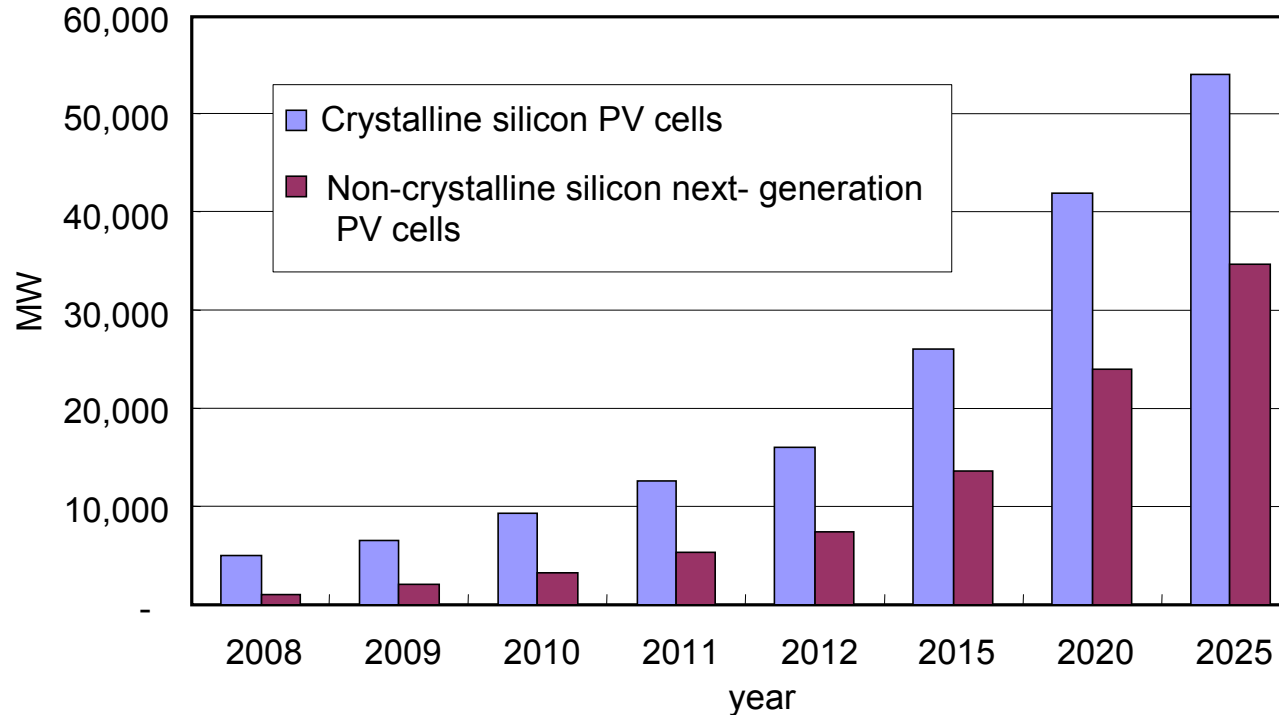


Barrier Films and PV Cell Parts and Materials

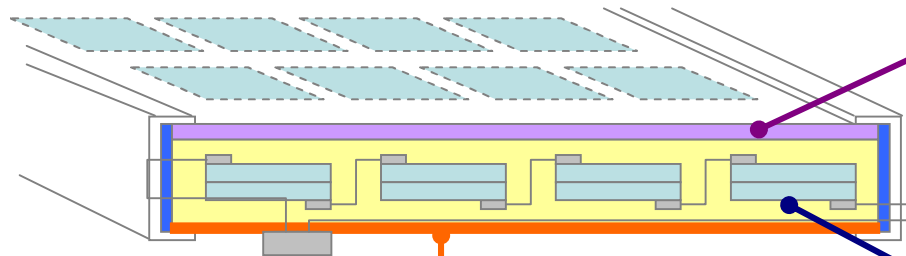
- Capture **50% of the global market** with TECHBARRIER™, a high gas barrier film used in back sheets
- Improve the technology and create the world's best water vapor barrier (10^{-4})
- Use this water vapor barrier technology as a core to lead to other parts and materials for PV cells
- Target: From crystalline silicon PV cells to next-generation flexible PV cells (CIGS, color enhancement, organic thin films)

Forecast of global demand for PV cells

Source: Fuji Keizai

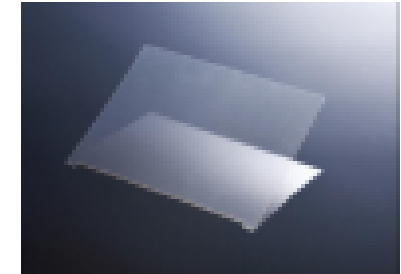


Barrier Films and PV Cell Parts and Materials



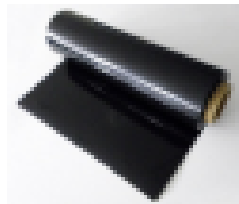
Launched in 2009

- **View-Barrier** front sheet
 - Used in CIGS PV cells



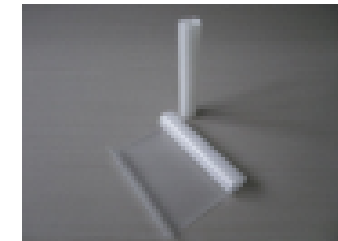
Launched in 2009

- **'Back-Barrier'** back sheet
 - Hydrolysis-resistant type newly developed
 - Weather-proof film to go on sale next year → full lineup of component parts and materials



Expected to be launched in the summer of 2011

- **PROCELLIER F** sealant
 - Launched as an alternative to EVA for bridges
 - Examining mass production in oversea markets
 - Developing a type integrated with backsheet



PO-based film ARTPLY
High gas barrier film TECHBARRIER
New weather-proof film PROCELLIER P



Global share of 50%



Under development

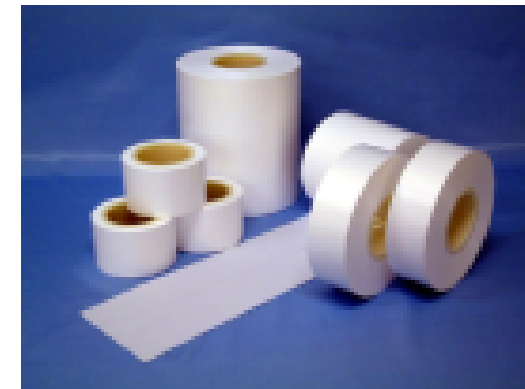
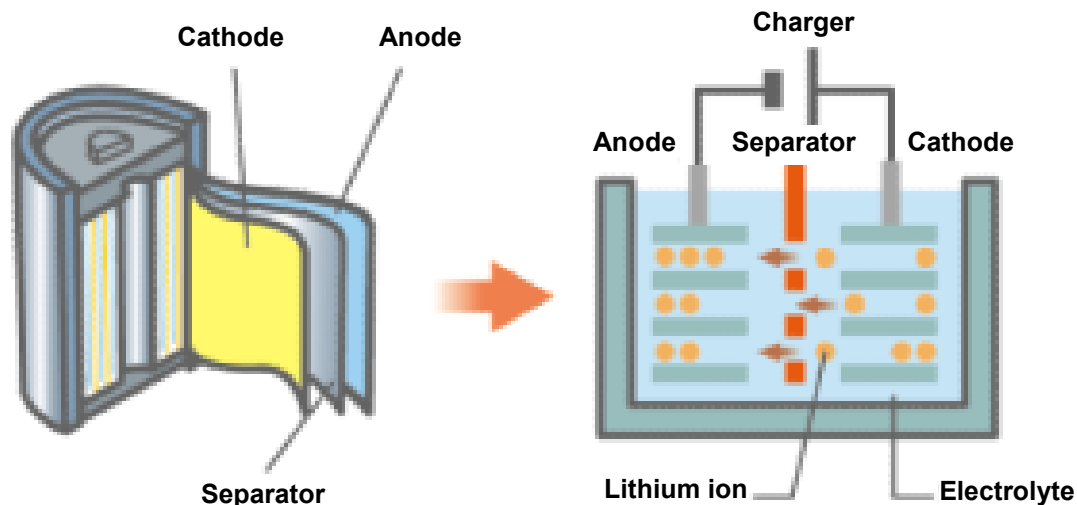
Aim to become the **top manufacturer of PV cell parts and materials** in cooperation with Mitsubishi Chemical
Goal of 30.0 billion yen in net sales in 2015

Lithium-Ion Secondary Battery Separator

- Succeeded in developing a high-output, long-life lithium ion battery separator using the production method created by the company
- Constructed a production line at Nagahama Plant in 2009 (12.00 million m²/year)

Role of the Separator

1. Separate the anode from the cathode and prevent electrical shorts
2. Permit the appropriate amount of lithium ions to permeate
3. Close pores at the time of abnormal heat generation and ensure safety

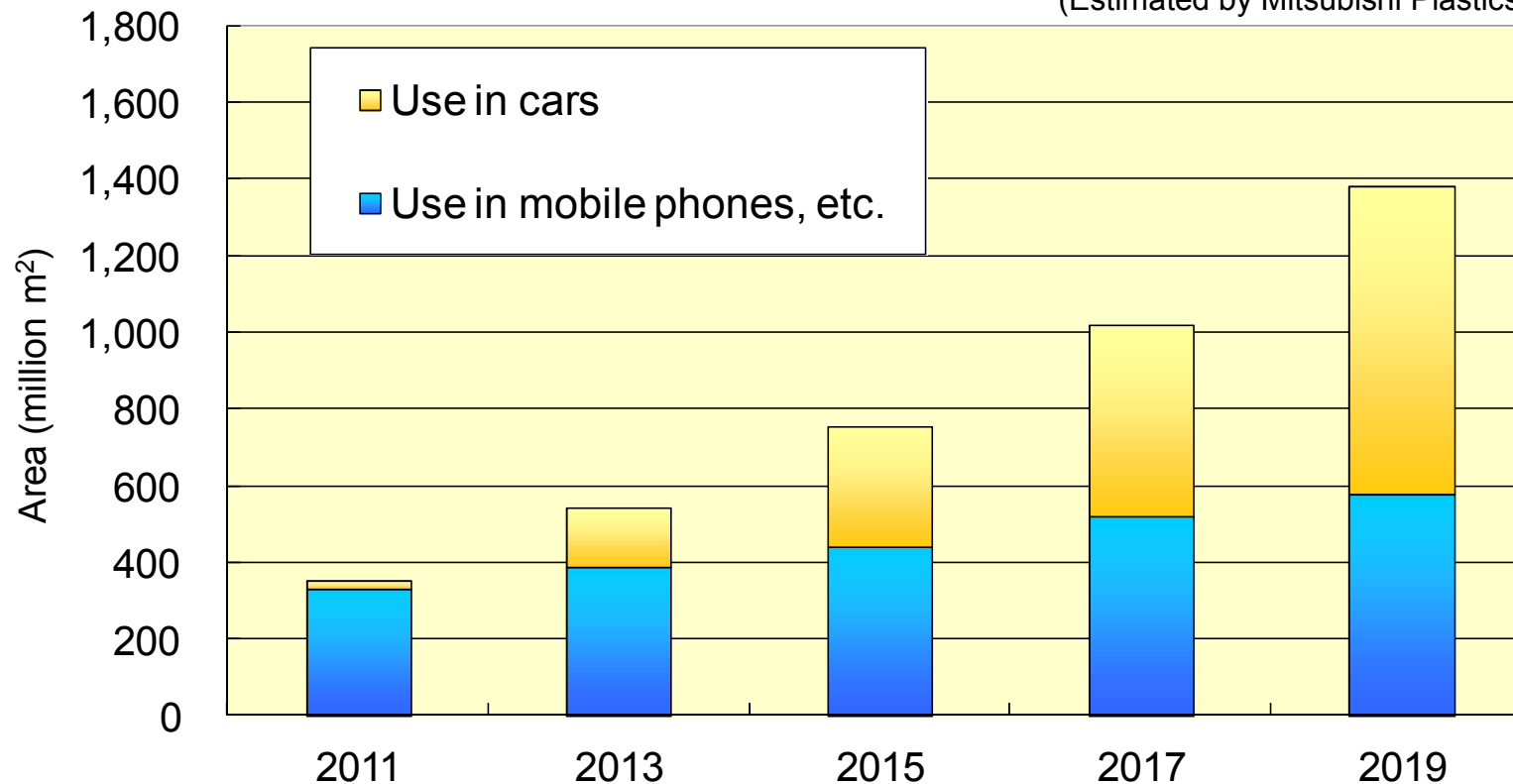


New form of separator
developed by Mitsubishi
Plastics

Lithium-Ion Secondary Battery Separator

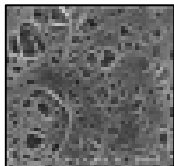
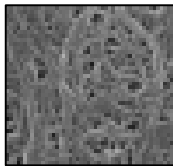
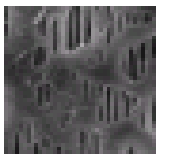
Outlook for Separator Market

(Estimated by Mitsubishi Plastics)



- **Adopted** for mobile phones, notebook computers, and power tools (shipped since July)
- **Decision on investments expected to be made this summer (15 million m² each in 2012 and 2013) to meet demand**
- **With an eye of electric vehicles, expand to 7.2 million m² in the future (FY2015) .**

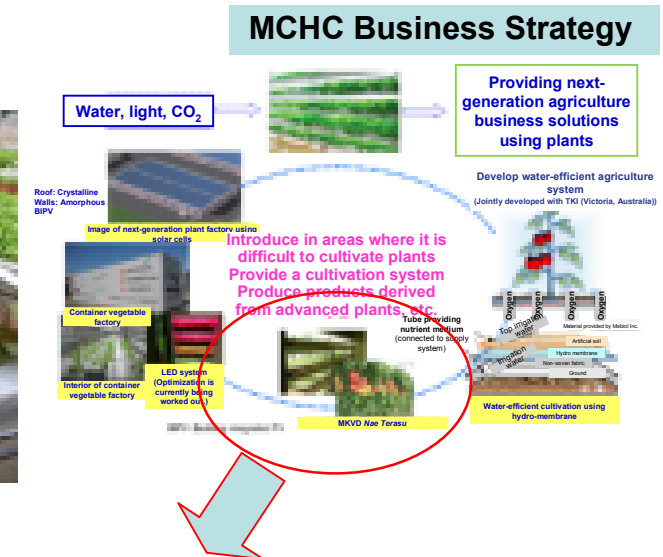
Comparison of Separator Products and Their Characteristics

		MPI– Dry bi-axial orientation method	Rivals– Wet bi-axial orientation method	Rivals– Dry uni-axial orientation method
Basic structure		PE/PE/PP	PE	PE/PE/PP
Pore structure		3-D mesh structure 	3-D mesh structure 	Normal porous structure 
Productivity, cost		○	△ (use solvent)	△ ~ ○
Basic properties	Permeability	◎	○	○ ~ ◎
	Mechanical strength	○	◎	○
Battery properties	Low- temperature output	◎	○	○
	Cycle life	◎	◎	○

Next-Generation Agriculture



Low-cost plant factories (hydroponic cultivation)



- Commercialize **low-cost plant factories**
- Reinforce the **medicinal plant business** at an earlier stage



Licorice seedling cultivated using the *Nae Terasu*, a closed transplant production system using artificial light



Interior



Exterior

Nae Terasu, a closed transplant production system using artificial light

Biopolymers



'PLABIO', a PLA-Based Heat-Shrinkable Film



Biodegradable Multi-Layer Film 'CAELUCCI'

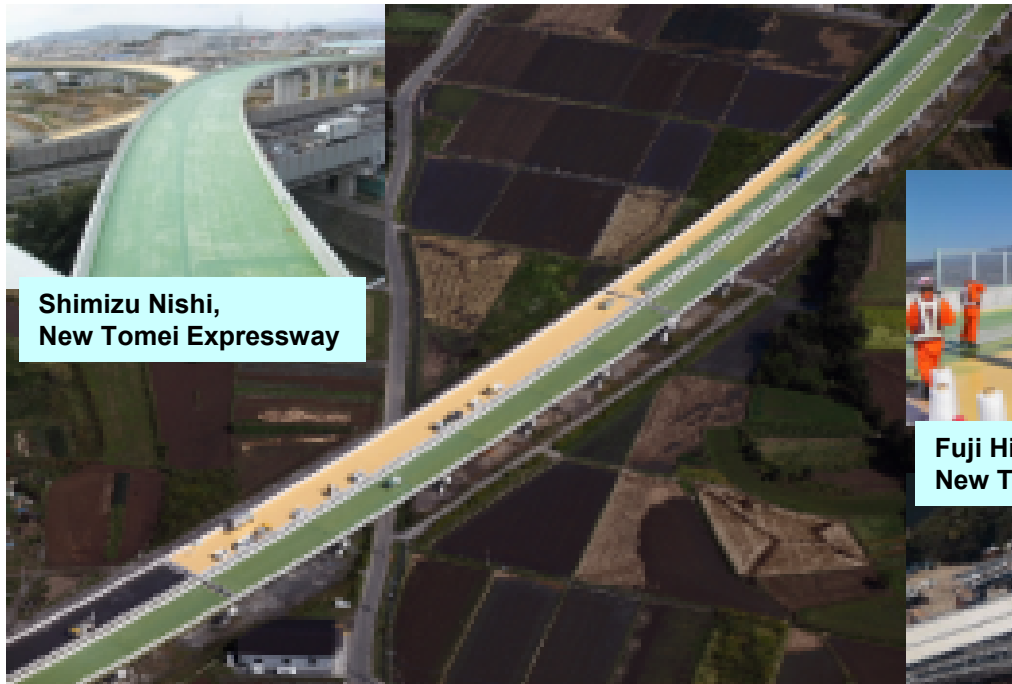


Plant-Derived Film
'ECOLOJU'

- Expand sales of **ECOLOJU (PLA)** for the existing applications and develop new ones
- Expand sales of **multilayer films (GSPLa)**
- Expand applications of **PLA** and **GSPLa**
- **Bio-based engineering plastic (DURABIO)**- Launched at Kurosaki Office of Mitsubishi Chemical (Mitsubishi Plastics developed applications)



Bridge Deck Waterproofing



Shimizu Nishi,
New Tomei Expressway

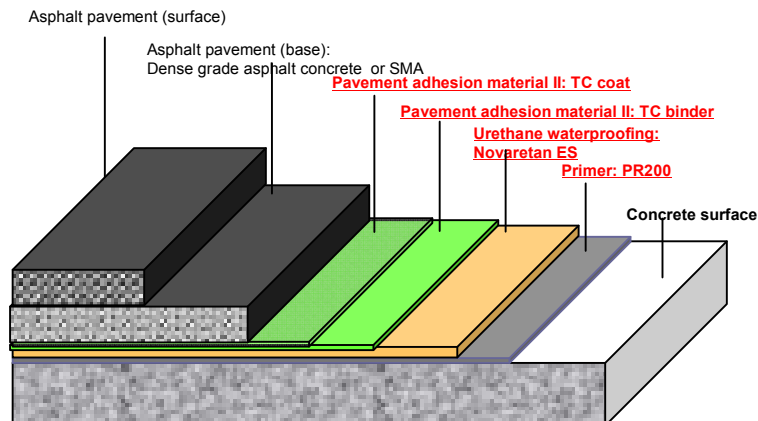
A method that provides superior adhesion between urethane, a highly water proof material, and the asphalt pavement



Fuji Higashi,
New Tomei Expressway

- Continue joint development among industry, government, and academia
- Register as new technology with the Ministry of Land, Infrastructure and Transport (provisional)
Register with system (NETIS) (provisional)
- Establish quick construction system (provisional)

Kawashima Section of Ken-O Expressway

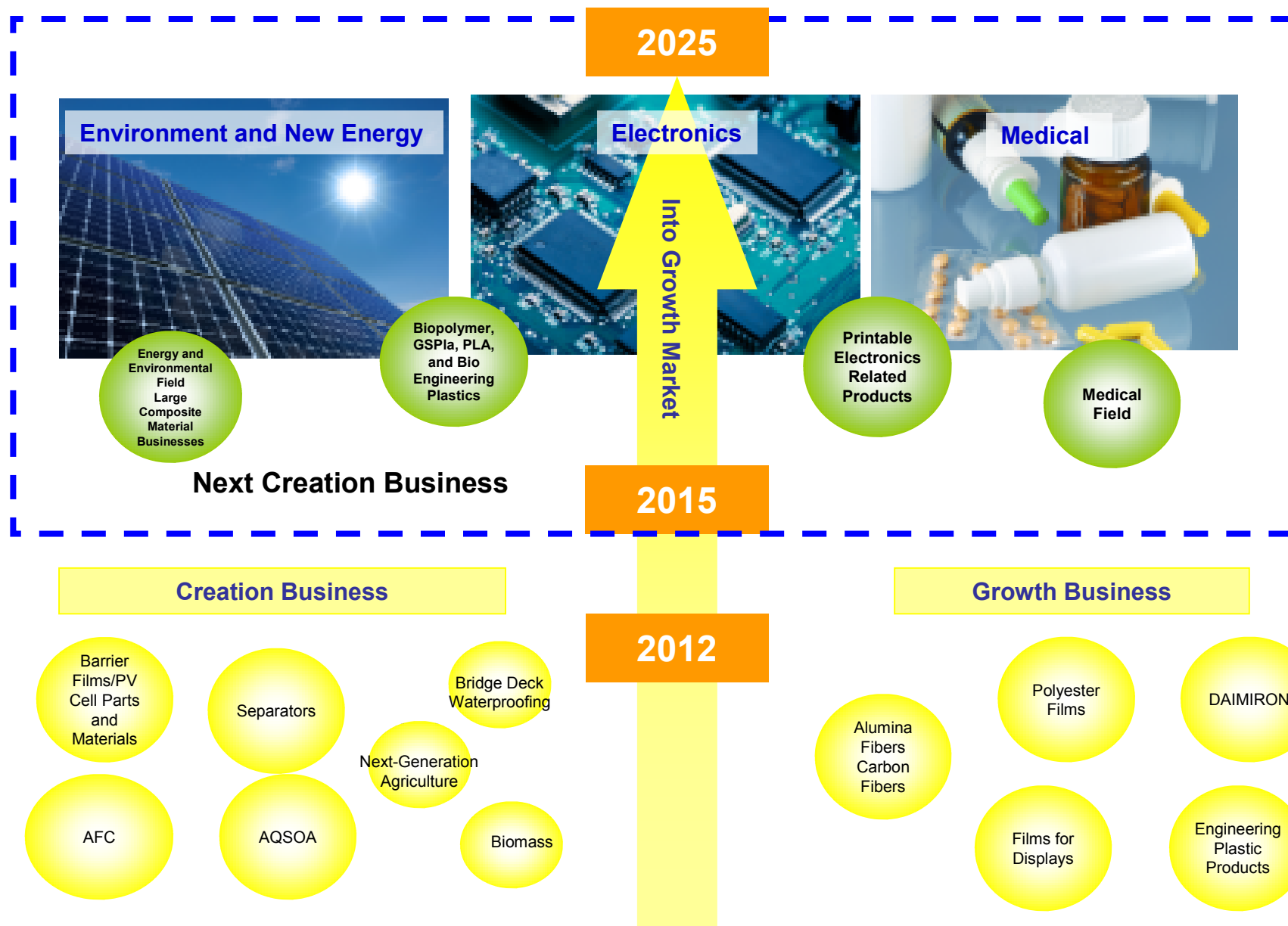


Novaretan ES Construction Method



Ebina Section of the Ken-O Expressway

Photographed October 2009



Overseas Strategy

Widen a Global Network in line with Growing Overseas Business

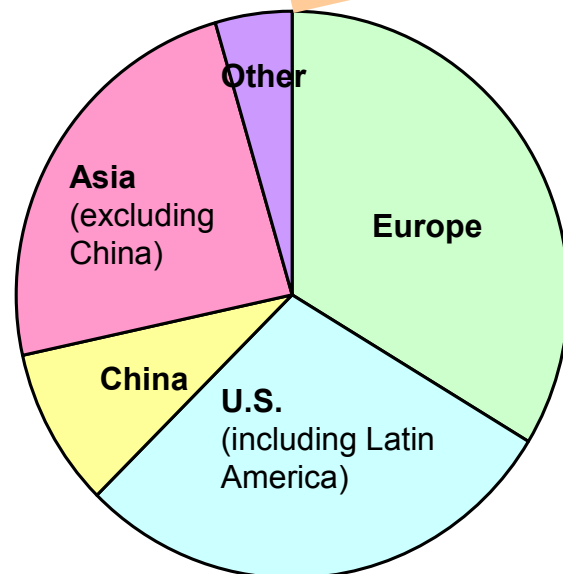
- Establish a local subsidiary in Shanghai
- Transform the office in Turkey into a local subsidiary
- Establish an administration function for North America and Europe
- Expand into new areas

- Raise skills and capabilities of Japanese employees
- Recruit globally-minded staff
- Aggressively recruit local staff

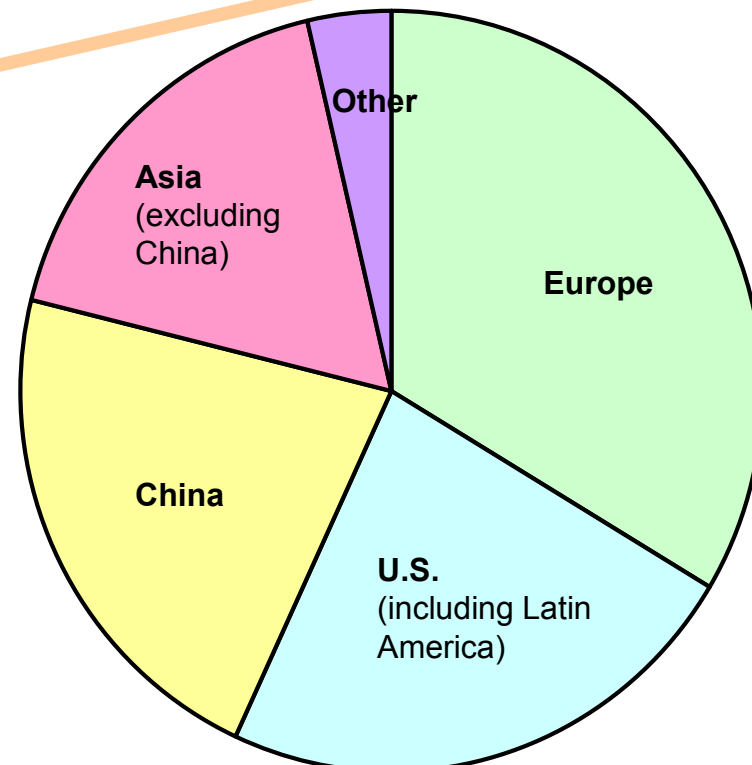


Overseas Sales (by Area)

FY2010



FY2015



**Overseas sales
income ratio**

37%

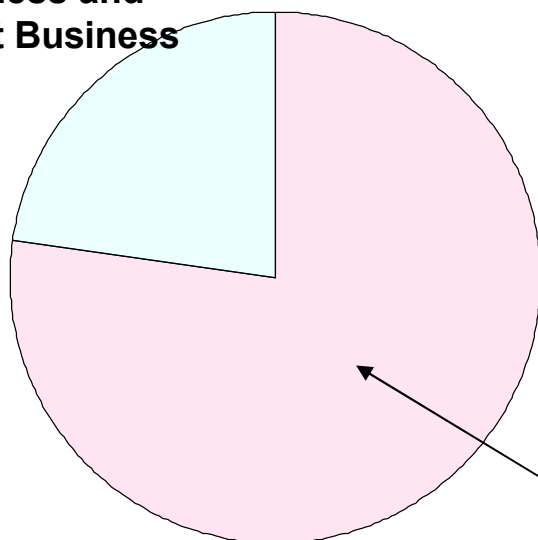


45%

Five-Year Investment Plan

Capital Investment

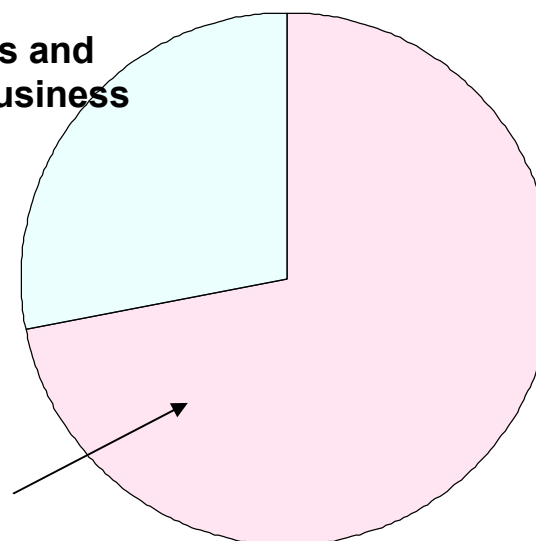
Stable Business and
Realignment Business



FY2011–FY2015
Total 150.0 billion yen

R&D Investment

Stable Business and
Realignment Business



FY2011–FY2015
Total 50.0 billion yen

R&D Vision

- Continue to develop new products and provide solutions to customers
- Contribute to the company through new product that is developed in a rapid and timely manner
- Create value through innovation

Basic Policy

Customer-Oriented

Selection and Concentration

Innovation

Items of focus

Turn the creation
business into
profitable at an
early stage

Intensive
investment in
highly profitable
business

Plan and promote
next creation
business

Give a new facility
maximum
capacity as quick
as possible

Create synergy
(Quadrant,
MCC,MRC)
MPI

Three-part
intellectual
property strategy

Improve and upgrade
the function of
technology platform

Nurture human resources,
Handle global issues and
actively use outside
resources

Policy and target of new product development



By FY2015

Generate 50% or more operating income by selling new products

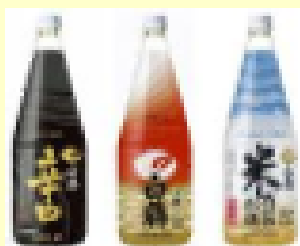
* New products are defined as products launched in the market in 2008 or later and have contributed to earnings for the period covered by the Mid-Term Plan.



'DIAWRAP ECO PITAT! Handy', food wrap for general households



High Gas Barrier PET Bottles for wine and sake



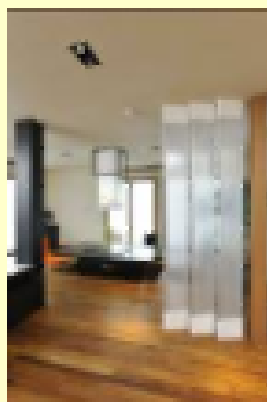
'HISHICONTAINER ASKOC', folding container that maintains the temperature of contents



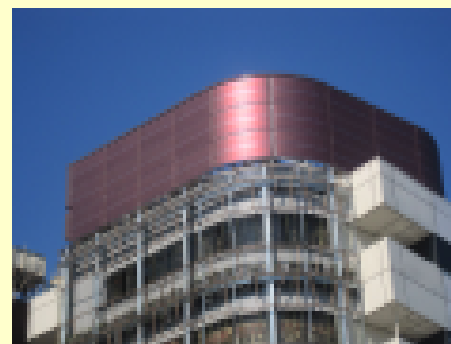
'ALFINE', aluminum alloy whose micro-level structure variations have been reduced



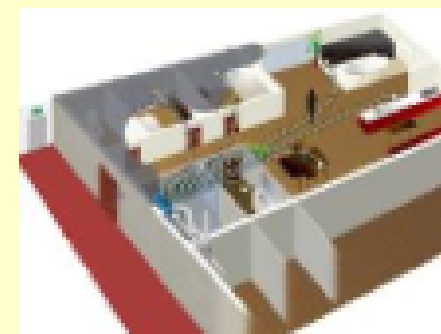
'SUPERNYL', a high-barrier nylon wrap that uses EVOH



'CLEARWARM', hot-water radiator that won the Kids Design Award

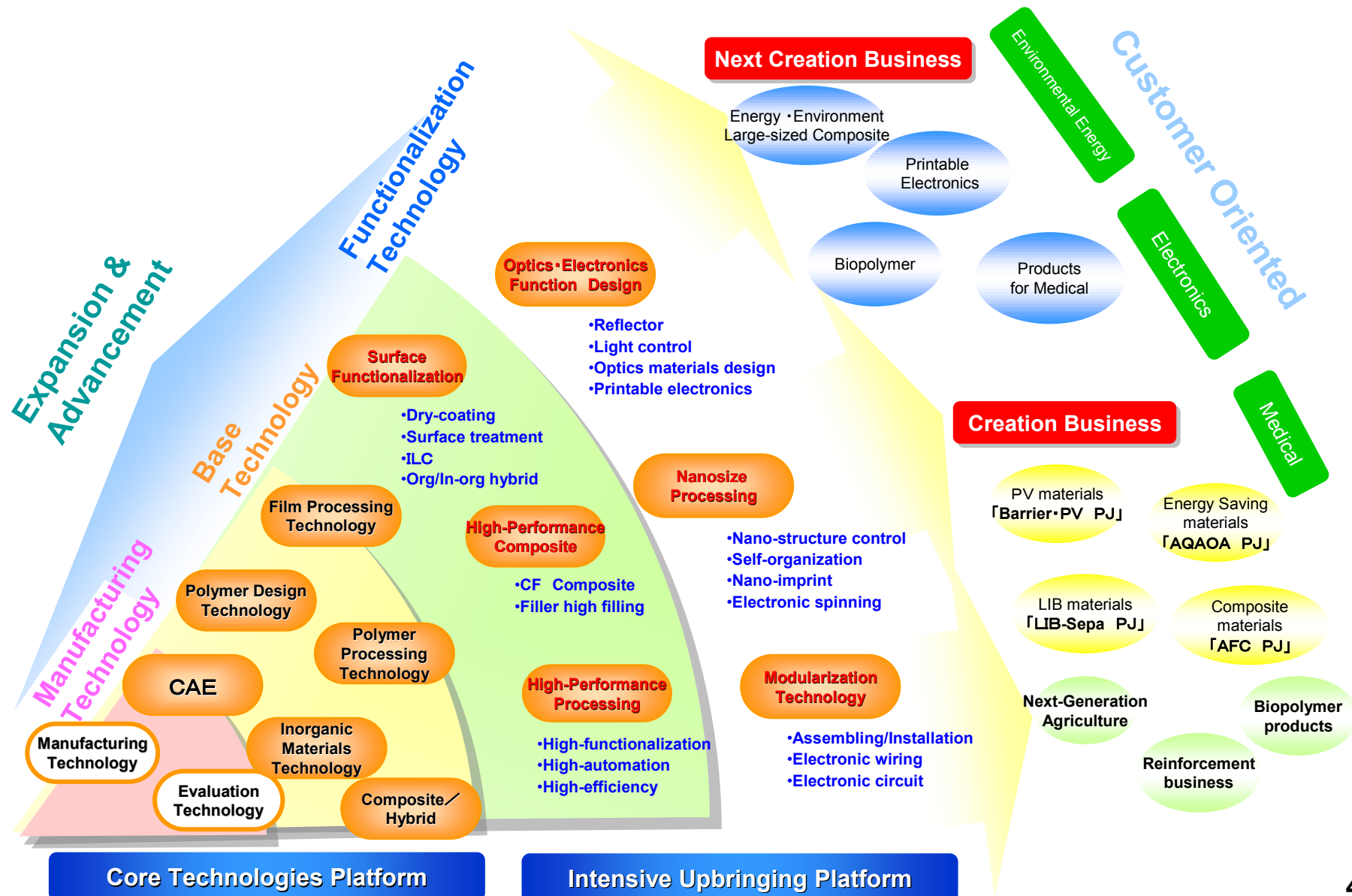


'ALPOLIC/GIOA', construction material with integrated solar cells (JR Meguro Green Building)



Sprinkler pipe system for communal housing

Expansion of Technology Platform



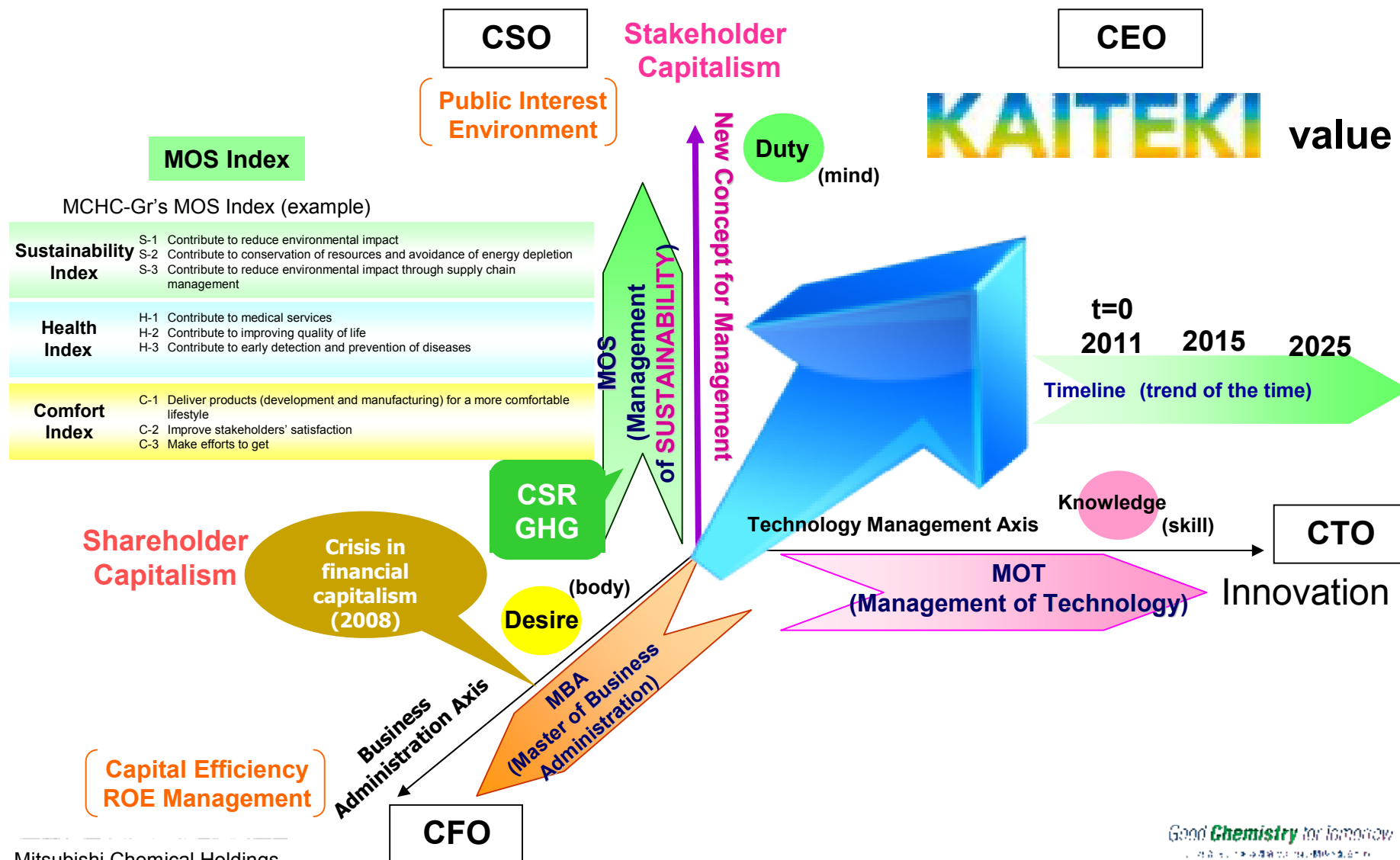
What is KAITEKI ?

- KAITEKI refers to a truly sustainable state that is not only comfortable for people but pleasant for a society and the planet.
- Having adopted sustainability, health, and comfort as the three decision criteria for corporate activities, MCHC is moving ahead to transform itself into a corporate entity that achieves KAITEKI.
- MCHC is advocating this KAITEKI as what the world should be like.

Four-dimensional management and MOS

APTSIS

Proposal of “Management of SUSTAINABILITY” (MOS Axis)



Measuring with the MOS Indexes

Although the overall MOS value cannot be measured with the following nine representative indexes, a goal is to be set, progress is to be monitored once a year, and efforts are made to make improvements.

Sustainability Index

S-1 Contribute to reduce environmental impact

S-2 Contribute to conservation of resources and avoidance of energy depletion

S-3 Contribute to reduce environmental impact through supply chain management

Health Index

H-1 Contribute to medical services

H-2 Contribute to improving quality of life

H-3 Contribute to early detection and prevention of diseases

Comfort Index

C-1 Deliver products (development and manufacturing) for a more comfortable lifestyle

C-2 Improve stakeholders' satisfaction

C-3 Make efforts to get corporate trust

