



Social and Environmental Report
2009

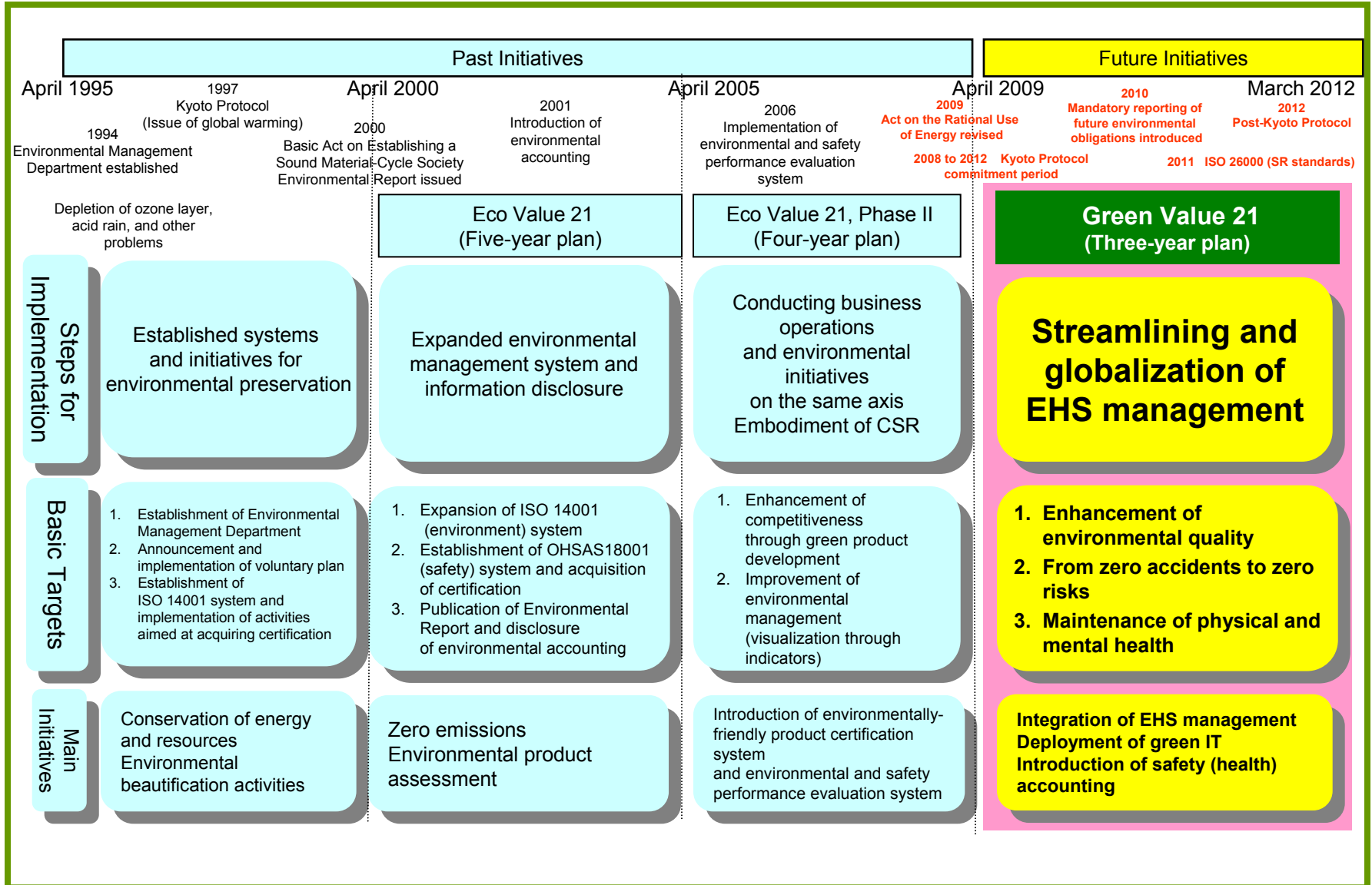
Topical Edition

■ Contents

1. Environmental Management
2. Preventing Global Warming
3. Waste Reduction
4. Chemical Substance Management
5. Promoting Green Products
6. New Businesses

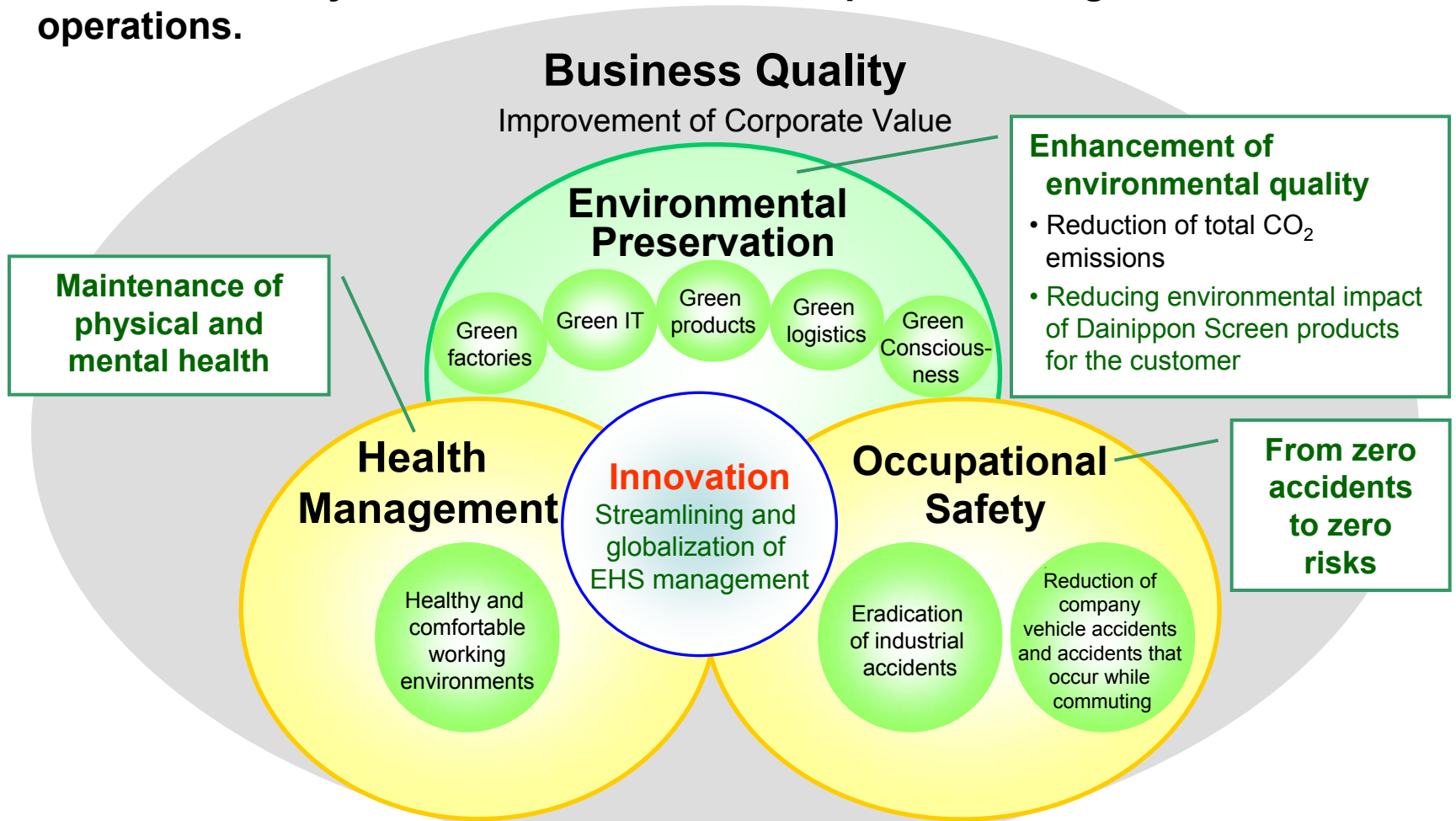


Past and Future Environmental Initiatives



EHS Management Vision

- Dainippon Screen practices environmental preservation, and occupational health and safety centered on innovation as part of our regular business operations.



Basic Policies related to EHS Management

■ **In line with the integration of the environmental management system, Dainippon Screen has unified our environmental philosophy and environmental policies across the Group.**

Basic policies related to EHS management

■ Environmental Philosophy and Environmental Policies

Environmental Philosophy

The Dainippon Screen Group will contribute to the realization of a society where both nature and the people of the world can share an abundant future by pursuing technology for the creation of an environment that is friendly to both people and the Earth.

Environmental Policies

1. The Screen Group will offer low-environmental-impact products through its business operations involving the development, manufacture, sale, servicing, and management of electronic equipment and components and graphic arts equipment.
2. The Screen Group will work to prevent environmental pollution by establishing voluntary standards of operation and by complying with applicable legal regulations and agreements made with stakeholders, based on an understanding of environmental issues.
3. The Screen Group will create and maintain an environmental management system, and, with the goals indicated below, regularly review this system and continually strive to improve its environmental impact.
 - a. Resource conservation: Promote the prevention of global warming and the conservation of resources.
 - b. Product stewardship: Design environmentally-friendly products and improve distribution processes.
 - c. Community service: Improve environmental awareness amongst employees.
4. The Screen Group will raise awareness of environmental conservation initiatives amongst employees and other related parties through environmental education and promotional activities, and act with the awareness that environmental conservation initiatives are important management issues.
5. The Screen Group will publicize its environmental philosophy and environmental policies both within and outside the company.

■ Occupational Health and Safety Philosophy and Occupational Health and Safety Policies

Occupational Health and Safety Philosophy

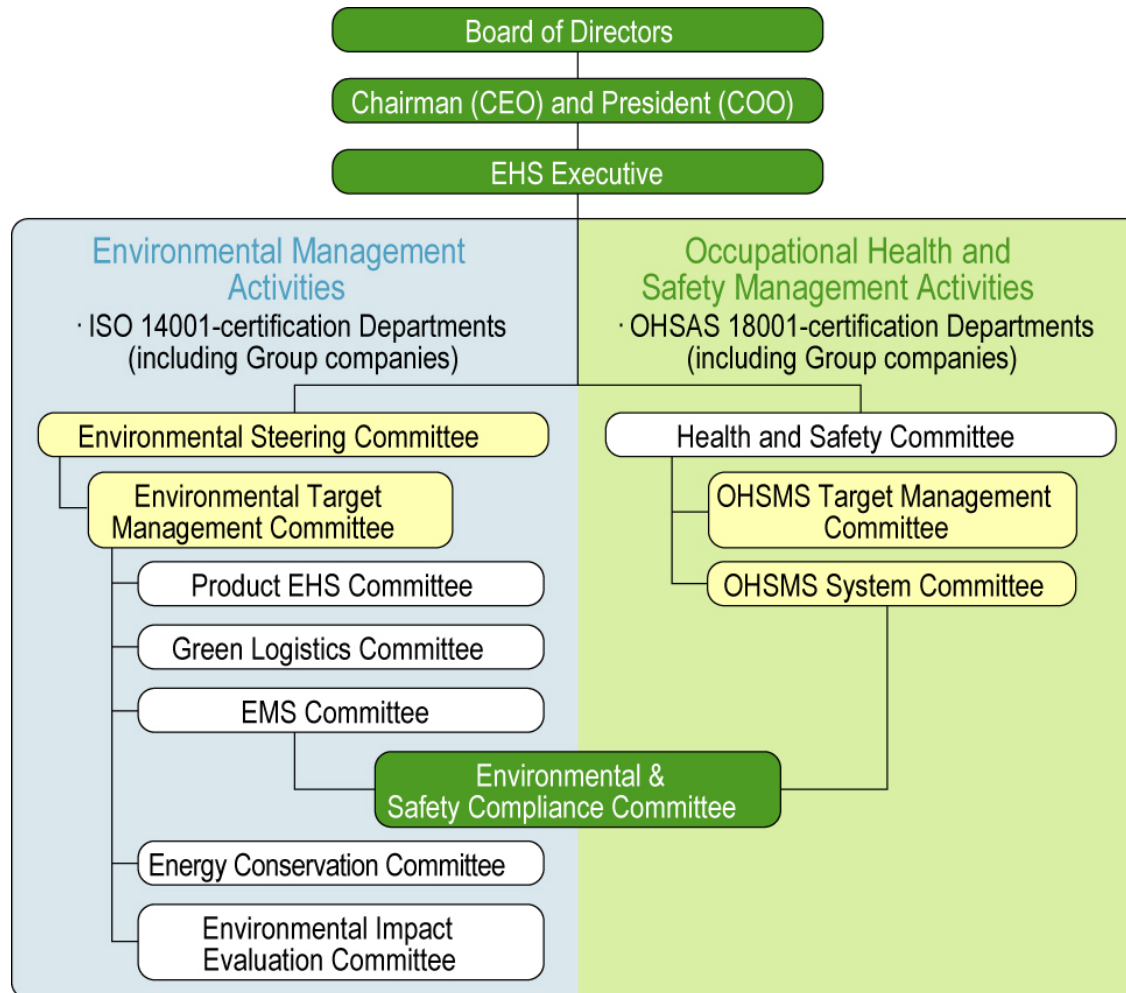
The Dainippon Screen Group, acting in the belief that people are the foundation of business activities, will strive to create safe, healthy, and comfortable workplaces.

Occupational Health and Safety Policies

1. The Screen Group will work to improve occupational health and safety activities related to its business operations involving the development, manufacture, sale, servicing, and management of electronic equipment and components and graphic arts equipment.
2. The Screen Group will identify potential sources of danger, and prevent injury and illness by establishing voluntary standards of operation and by complying with applicable legal regulations and agreements made with stakeholders.
3. The Screen Group will create and maintain an occupational health and safety management system, and, with the goals indicated below, regularly review this system and continually strive to improve risks related to occupational health and safety.
 - a. Eradicate workplace accidents.
 - b. Reduce company vehicle accidents and accidents that occur while commuting.
 - c. Create safe, healthy, and comfortable workplaces.
4. The Screen Group will raise awareness of occupational health and safety initiatives amongst employees and other related parties through occupational health and safety education and promotional activities, and act with the awareness that occupational health and safety initiatives are important management issues.
5. The Screen Group will publicize its occupational health and safety philosophy and occupational health and safety policies both within and outside the company.

EHS Management Promotion System

■ Dainippon Screen is reviewing our promotion system in line with the integration of the environmental management system.



EHS Education

■ Dainippon Screen is restructuring our education system according to job function and are conducting education based on this new system.

Education System

Education Program	Environment	Health and Safety
Basic courses	New employee course	New employee course
	New manager course	New section chief course
	All employees mandatory course	All employees
Management courses	Management system course	System-related course
	Internal auditor course	Internal auditor course
	Environmental impact assessor course	Risk assessor course
		Product risk assessor course
Occupational course	Product designer course	Worker course
	Purchaser course	Specific worker course
	Environmental facility operator course	Supervisor course
	Plant facilities manager course	
	Waste manager course	

Environment Month Commemorative Lectures



Environmental management course led by Hiroshi Murata, a specialist in the rational use of energy from the Energy Conservation Center Japan (ECCJ)

Safety Training Center (STC)



Safety skills training in progress at a health and safety occupational course.

Technical Standardization Initiatives within the Industry

■ SEMICON Japan*1 2008

Dainippon Screen gave a presentation at the International EHS Compliance and Regulatory Seminar.



SEMI ICRC*2 member Ryosuke Imamiya gives a presentation

■ New Guidelines SEMI S26-0308

Dainippon Screen has shown leadership by developing EHS Guidelines for FPD Manufacturing Systems.



FPD System Safety TF Co-leader Naokatsu Nishiguchi presents at Display Taiwan 2008 and FPD International 2008

*1 SEMICON Japan: A global-scale semiconductor exposition targeting the microelectronics production equipment and materials industries.

*2 ICRC (International Compliance and Regulatory Committee): A body that investigates industry needs from the point of view of semiconductor production equipment and materials suppliers in relation to EHS regulations, in addition to sharing information and providing useful compliance tools in order to make the semiconductor industry safer and more environmentally-friendly.

Respecting Biodiversity

■ Protecting wildlife in Lake Biwa

Built in 2006, our wastewater treatment plant is designed to meet Shiga Prefecture's strict water quality regulations.



New wastewater treatment plant

■ Volunteers clean up the Ota River

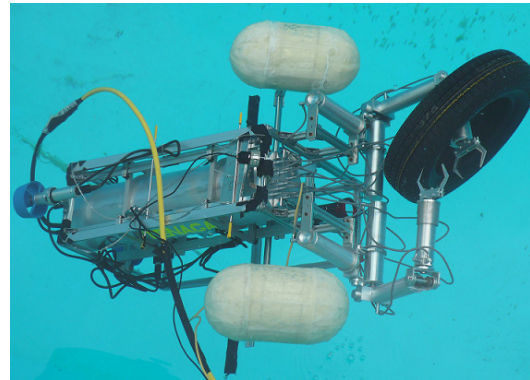
Every year, Dainippon Screen helps local Takamiya-cho residents clean up the Ota River, which flows into Lake Biwa.



Dainippon Screen has been involved in the regular clean up of the Ota River since 1992

■ Joint development of robot technology with Ritsumeikan University

Through research and development of underwater robots, Dainippon Screen is tackling water-related environmental issues in Lake Biwa and other lakes as well as marine environmental problems caused by the growth of organisms on the hulls of ships.



Preliminary experiment in a pool for retrieving abandoned tires from the bottom of Lake Biwa

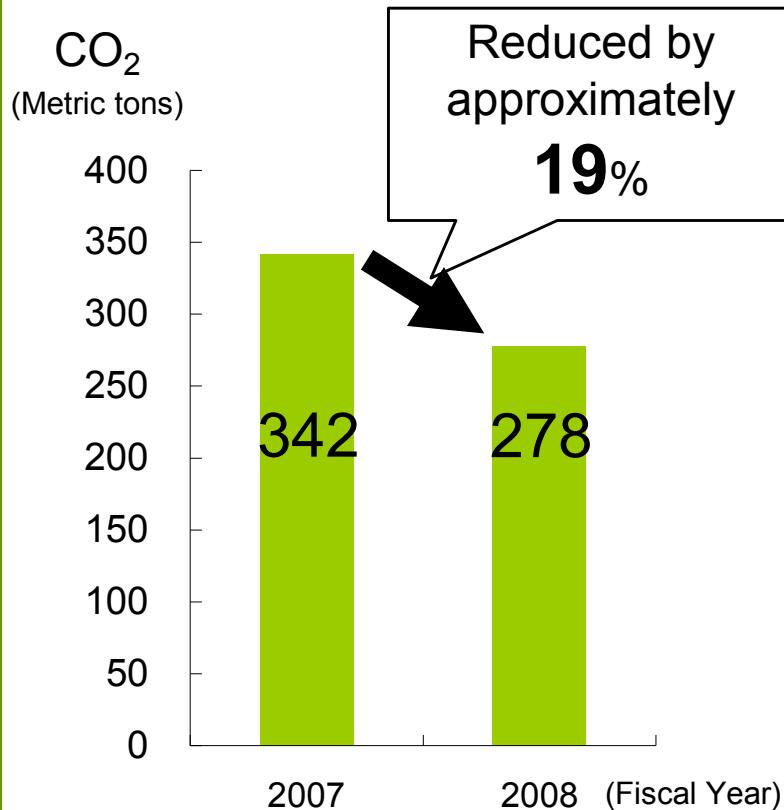
Dainippon Screen has established a dedicated research facility on Ritsumeikan University's Biwako-Kusatsu Campus



See the following website for more details (available in Japanese only):
http://www.screen.co.jp/press/NR080414_Rits.pdf

Environmental Measures at Chinese Subsidiary (Dainippon Screen MT (Hangzhou) Co., Ltd.)*¹

■ CO₂ emissions reduced by approximately 19%.



Regular meeting of the EMS/QMS Promotion Committee

■ Waste management

Managed items	
Cartridges	Batteries
Lamps	Glass bottles
Gloves	Developer fluid

■ Continuous assessment

ISO 14001	Certification successfully renewed in November 2007
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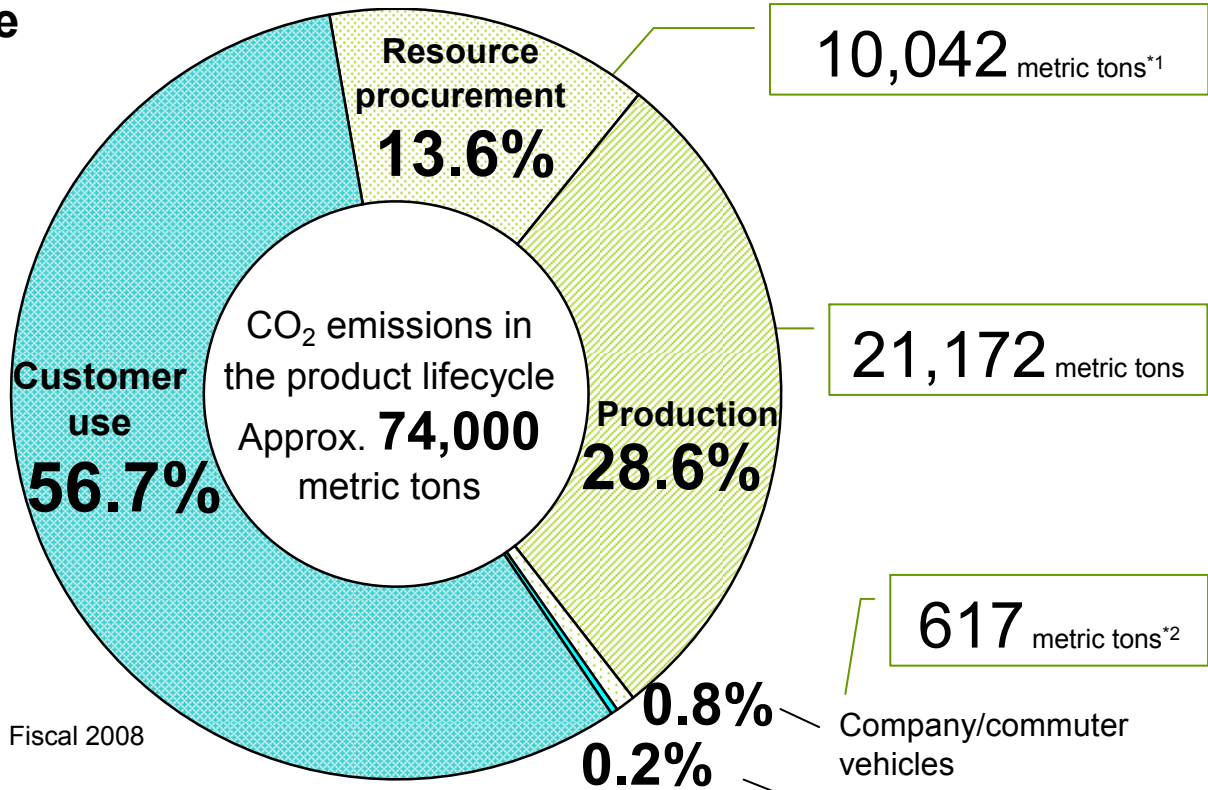
*¹ Dainippon Screen MT (Hangzhou) Co., Ltd.: Established September 2003. Manufactures CtP*² systems.

*² CtP (Computer-to-Plate): Printing technology or equipment that fully digitalizes the printing process, and eliminates the intermediate process (i.e. make-ready film), enabling jobs to be printed directly to printing plates.

CO₂ Emissions in the Product Lifecycle

Dainippon Screen has introduced measures at each stage of the product lifecycle to reduce overall CO₂ emissions. Stages Dainippon Screen has focused on in particular are: employing environmentally-friendly designs in the stages of customer use and resource procurement; switching to alternate fuel sources in the stage of production; using environmentally-friendly cars and a shared commuter bus system in the stage of company/commuter vehicles; and implementing modal shifts in the stage of logistics.

CO₂ emissions in the semiconductor manufacturing equipment product lifecycle



* Data: Fiscal 2008

Scope: Applies to domestic sites and Group companies with certified environmental management systems.

*1 Based on average basic CO₂ emissions unit from "Materials Production Stage" in *Dainippon Screen Product LCA Application Criteria*.

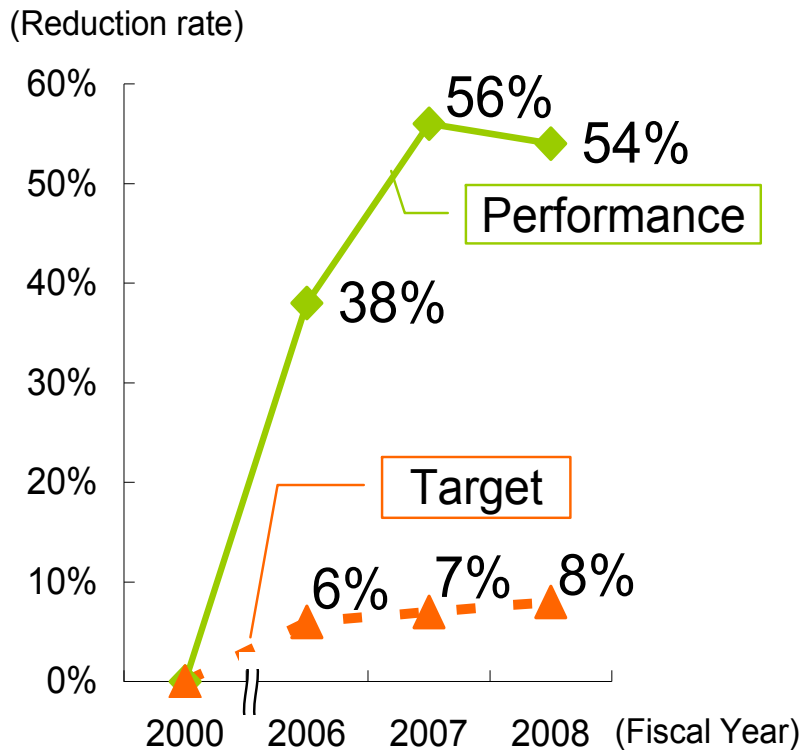
*2 Calculated with the following formula: Distance travelled ÷ Gas mileage x Basic CO₂ emissions unit

*3 Single-year CO₂ emissions of major products including past shipments calculated in accordance with S23.

Producing Energy-efficient Products

- All Screen Group companies are striving to create more energy-efficient products by reducing CO₂ emissions during customer use stage.

Reduction rate for power consumption (Performance criteria rate)



*Target: Values converted from quantity of power only.

Under the Green Value 21 plan launched in fiscal 2009:

Because industry/customer requirements differ according to field of operations, each business has prepared an energy-efficiency roadmap to achieve even more energy savings.

Target: Decrease energy consumption on a performance basis for each product line in development by at least 8% compared with fiscal 2000.

Result: Energy consumption on a performance basis was reduced for each of the six target products by an average of **54%**, achieving our targets.

Energy-efficient Products (Semiconductor Manufacturing Equipment)

■ Dainippon Screen is improving product energy-efficiency via S23 report preparation.

Dainippon Screen is reducing overall energy usage by measuring total energy use according to SEMI*1 S23*2 and assigning an order of priority to each utility based on the results of these calculations.

Batch wafer cleaning equipment

Power consumption reduced by **14%***



FC-3000



FC-3100

Measurements and calculations for annealing systems and scrubbers also based on S23



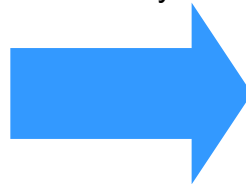
LA-3000-F

Single wafer cleaning equipment

Power consumption reduced by **50%**



SU-3000



SU-3100

AQUASPIN



SS-3000



SS-3100

*1 SEMI (Semiconductor Equipment and Materials International): An international industry group of companies that provide equipment, materials, and services used in the production of semiconductors, displays, nanoscale devices, MEMS, and related technologies.

*2 SEMI S23: Guide for Conservation of Energy Utilities and Materials Used by Semiconductor Manufacturing Equipment.

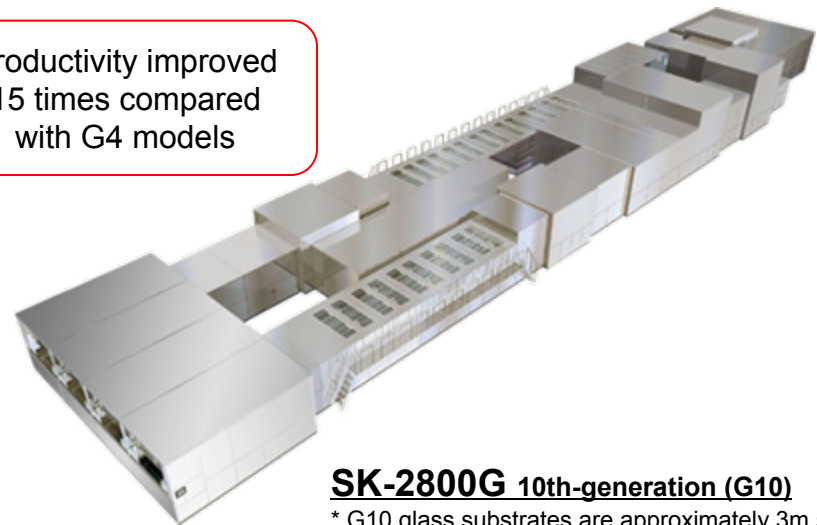
*3 Comparisons of power consumption per wafer.

Energy-efficient Products (FPD Manufacturing Equipment)

■ Due to their energy-efficiency and environmentally-friendly nature, global demand for LCDs is rising. Dainippon Screen pursues resource-conservation and energy-efficiency in the production process, supporting the manufacture of environmentally-friendly LCDs.

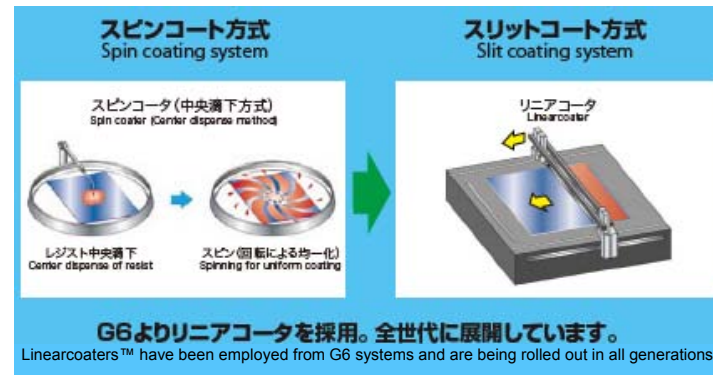


Productivity improved 15 times compared with G4 models



SK-2800G 10th-generation (G10)

* G10 glass substrates are approximately 3m square.

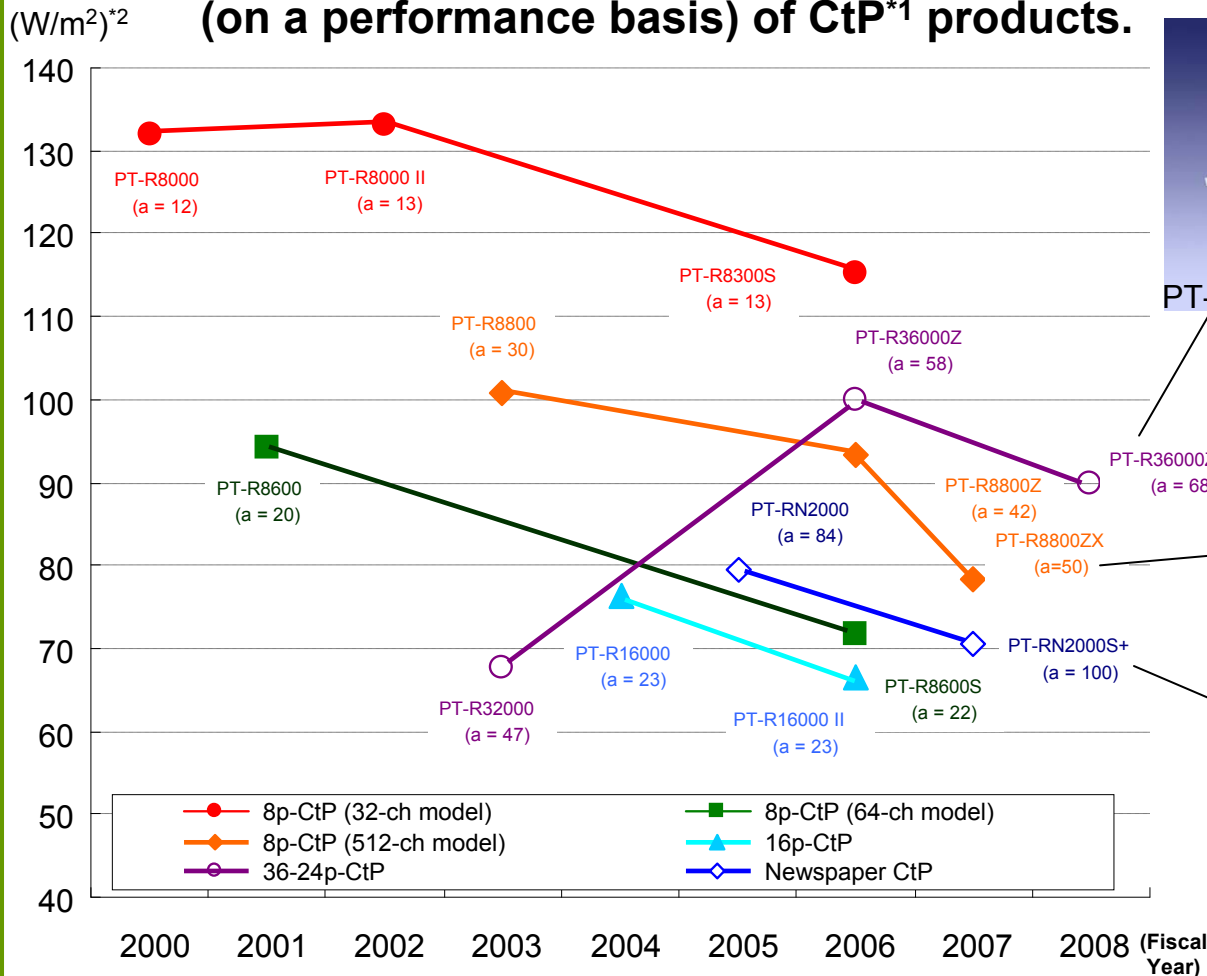


* SK-2800G: An SK series coater/developer.

* Coater/developer: A device used to coat and develop photosensitive chemicals on the glass substrate that is one of the component parts of an LCD.

Energy-efficient Products (Graphic Arts Equipment)

■ **Dainippon Screen is working to reduce maximum power consumption (on a performance basis) of CtP*1 products.**



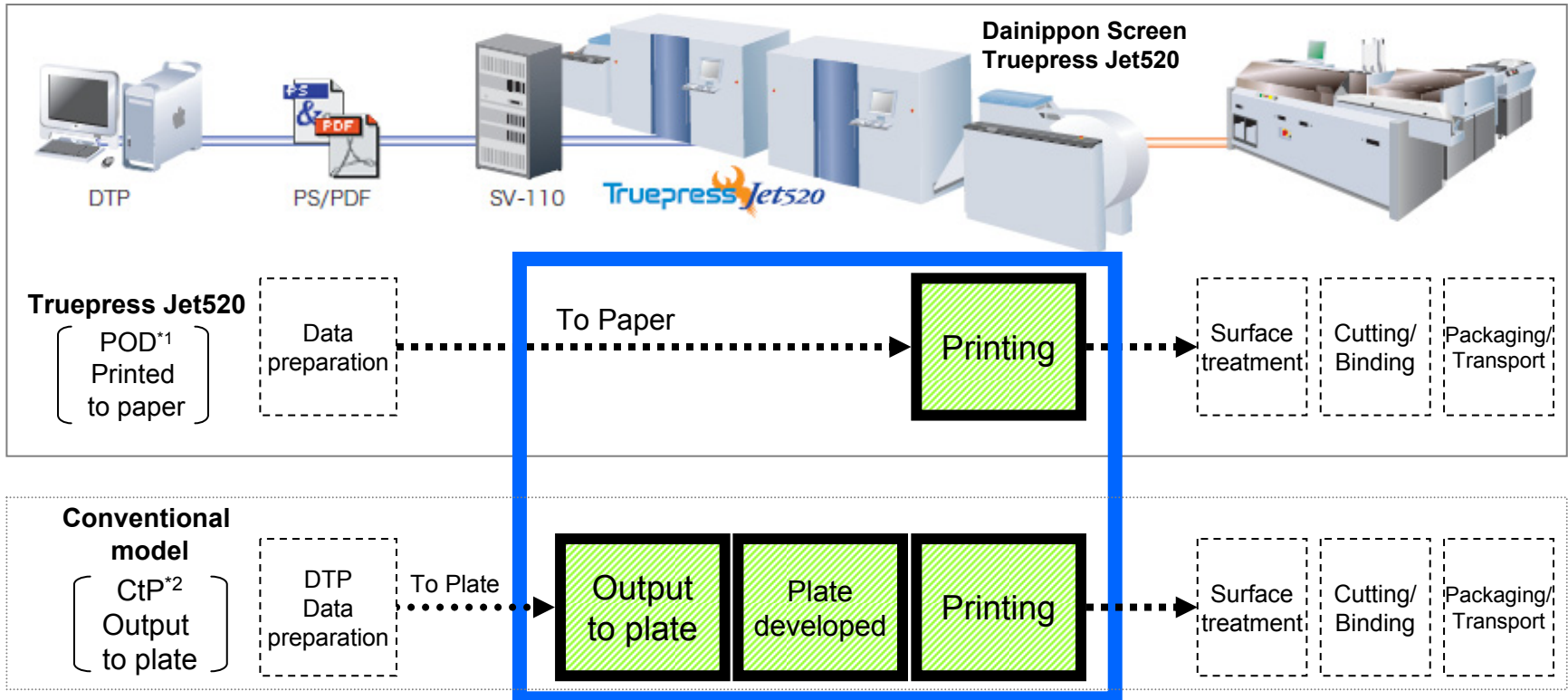
*1 CtP (Computer-to-Plate): Outputting design data directly from a computer to a printing plate.

*2 Power consumption per square meter.

8p-CtP: 8 page size available
 PT-Rxxx: Model name
 a: Processible number of plates per hour

Energy-efficient Products (Graphic Arts Equipment)

- CO₂ emissions made by the Truepress Jet520 digital inkjet printing system have been reduced by approximately 63% compared with conventional models.



Fewer processes contribute to reduced CO₂ emissions by approximately 63%*³

*1 POD (Print-on-Demand): Printing at the time the request is received from the customer. Allows small runs to be printed in comparatively short time compared with conventional printing methods.

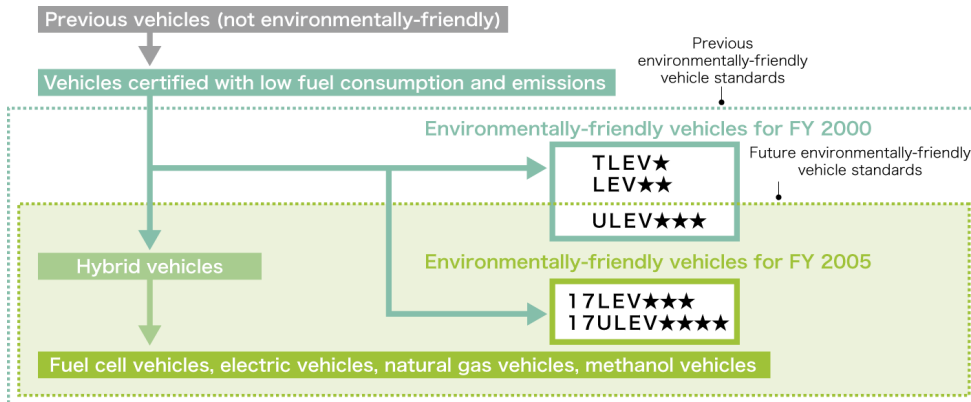
*2 CtP (Computer-to-Plate): Outputting design data directly from a computer to a printing plate.

*3 Based on actual measurements. Comparison made with 1,000 prints.

Company Vehicle-related Initiatives

- Dainippon Screen is increasing the number of energy-efficient cars in its company vehicle based on its philosophy regarding energy-efficient transport standards.

Philosophy regarding energy-efficient transport standards

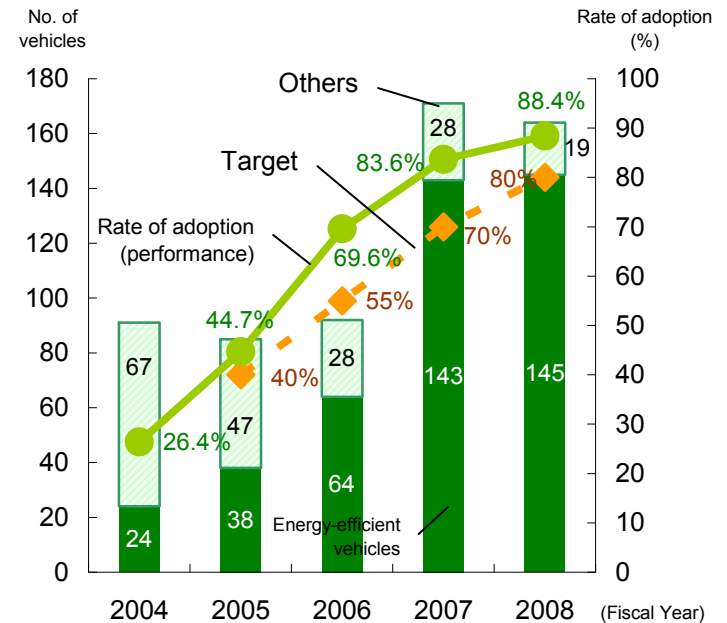


FY2008 target: 80%



FY2008 results: Target achieved with **88.4%** (145 out of 164 vehicles)

88% of company vehicles are now energy-efficient models



Scope: Applies to domestic sites and Group companies with certified environmental management systems.

Commuting-related Initiatives

- From 2007 we have been participating in a shared commuter bus system.

24 companies share the service,
which is used by around **350** people*



*As of June 2009

Received an inspection tour from the Yokkaichi Chamber of Commerce and Industry in fiscal 2008.

- Screen Station was established, improving convenience for local residents and helping to reduce CO₂ emissions.

Screen Station, a new station on the Ohmi Railway Taga Line, is located within the grounds of the Hikone Plant. Service began in March 2008.



Ohmi Railway

Screen Station

*Screen station can be used by ordinary passengers as well.

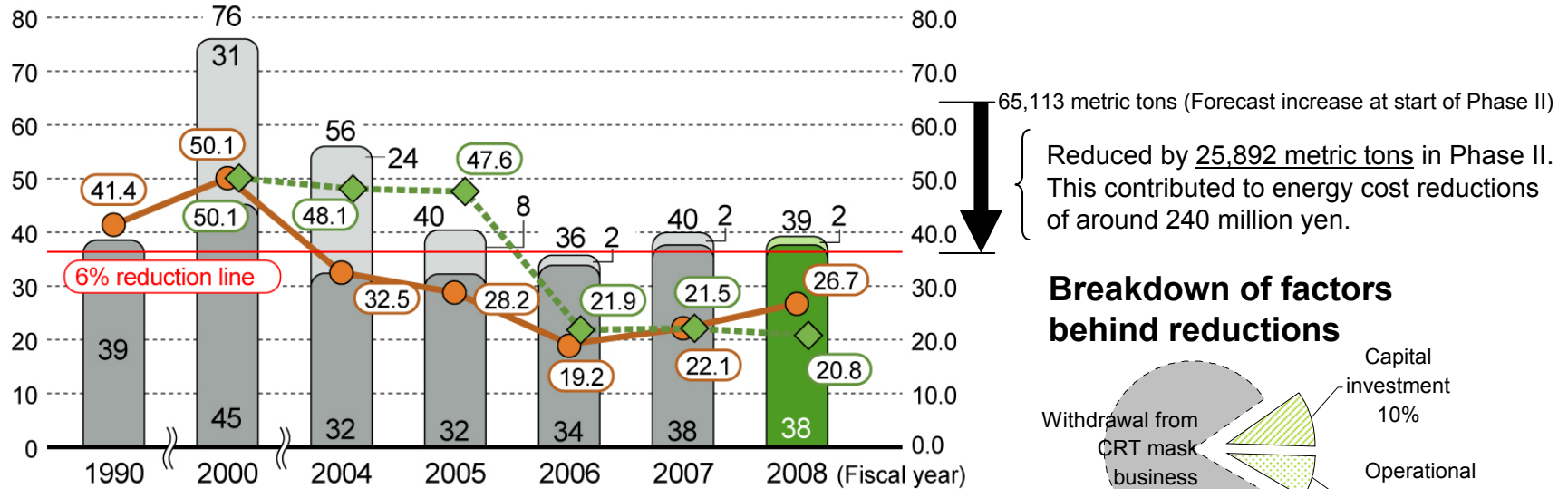
CO₂ Reductions in the Production Process

■ While Dainippon Screen was unable to achieve our target, Dainippon Screen was successful in significantly reducing CO₂ emissions compared with our original estimates.

CO₂ emissions

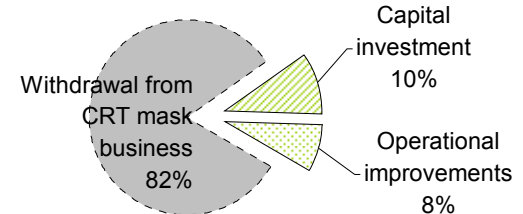
(Thousands of metric tons)

(Metric tons/100 million yen)



65,113 metric tons (Forecast increase at start of Phase II)
 Reduced by 25,892 metric tons in Phase II.
 This contributed to energy cost reductions of around 240 million yen.

Breakdown of factors behind reductions



Capital investment and operational improvements are introduced in detail over the following pages.

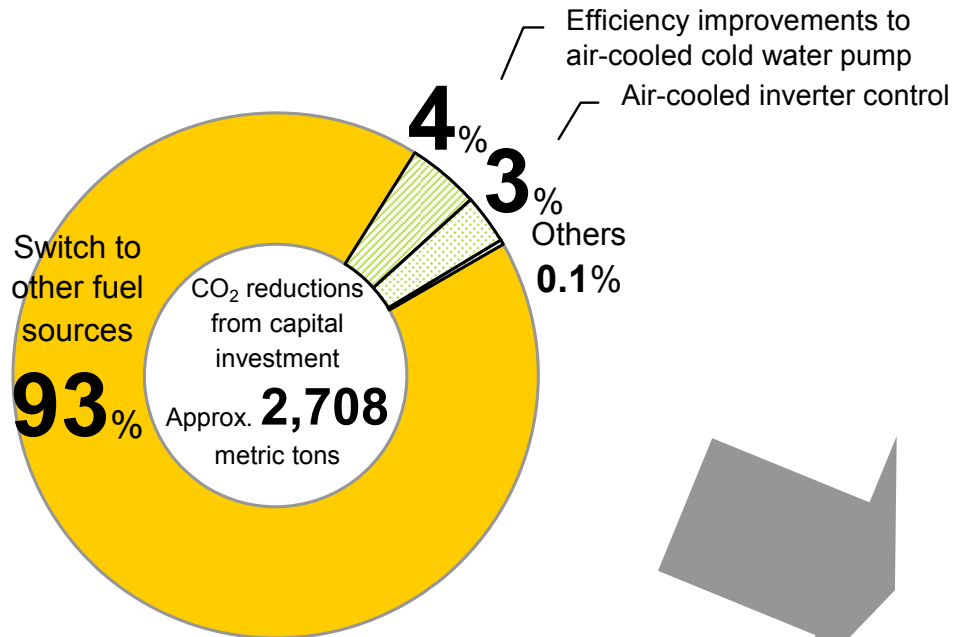
→ Eco Value 21 → Eco Value 21, Phase II

- Scope: Applies to domestic sites and Group companies with certified environmental management systems.
- With the dissolution of DSTM (DST Micronics) following our withdrawal from the CRT mask business, Dainippon Screen revised our target in fiscal 2006, and reset the target by eliminating actual figures for DSTM from actual results from the benchmark year of FY2000.
- Forecast increase at start of Phase II: Forecast based on enhancement and expansion of production facilities.
- Cost conversion: Based on Dainippon Screen's *Environmental Accounting Calculation Standards*.

CO₂ Reductions from Capital Investment

■ Dainippon Screen is proceeding with planned CO₂ reductions by switching fuel to city gas and making other capital investments.

Breakdown of CO₂ reductions achieved via capital investment



*Scope: FY2006 to FY2008 total

Fuel for thermal energy supply facilities have been switched from diesel to environmentally-friendly city gas.



Boilers at the Hikone Plant powered by city gas

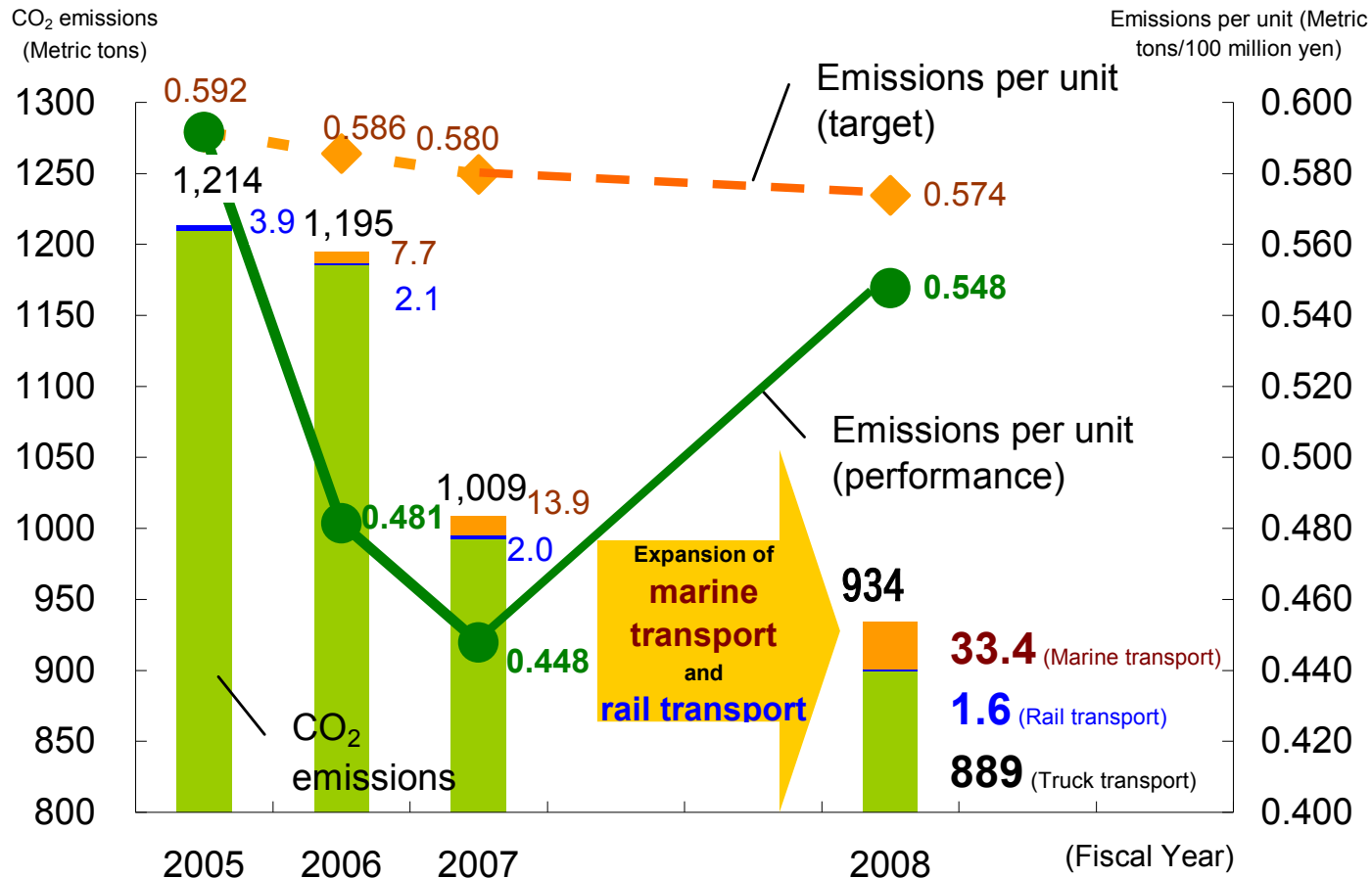
CO₂ Reductions from Operational Improvements

- Dainippon Screen is implementing company-level initiatives to use only required amounts of energy in required locations for required times.

Plant/Group Company	Measures	Annual CO ₂ reductions
Hikone Plant	Compartmentalized lighting in clean rooms	Approx. 97 metric tons
	Efficient use of energy on the wastewater treatment plant and production worksite	Approx. 24 metric tons
TechInTech Co., Ltd.	Strict enforcement of air conditioning operation times in clean rooms outside working hours	Approx. 35 metric tons
Common to all	Switching off unnecessary equipment and reduction of fluorescent lights	Approx. 1,600 metric tons
	Eco Day	Approx. 27 metric tons
	Air conditioning settings/Adjustment within one degree either side where possible	Continued
	Ensuring that unnecessary lights are turned off during lunch breaks	Continued
	Ensuring that PCs are turned off when not in use	Continued
	Energy-efficiency patrols	Continued

CO₂ Reductions from Improvements to Logistics

■ Modal shifts to marine transport have more than doubled from the previous fiscal year.



• Scope: Dainippon Screen Mfg. Co., Ltd.

• Calculation method used: weight of freight (metric tons) x transport distance (kilometers)


Use of Modal Shifts

Expansion of coastal shipping and use of overseas shipping for unified international transport

From coastal shipping to overseas shipping for unified transport
Simplified packaging technology* used to reduce packaging materials

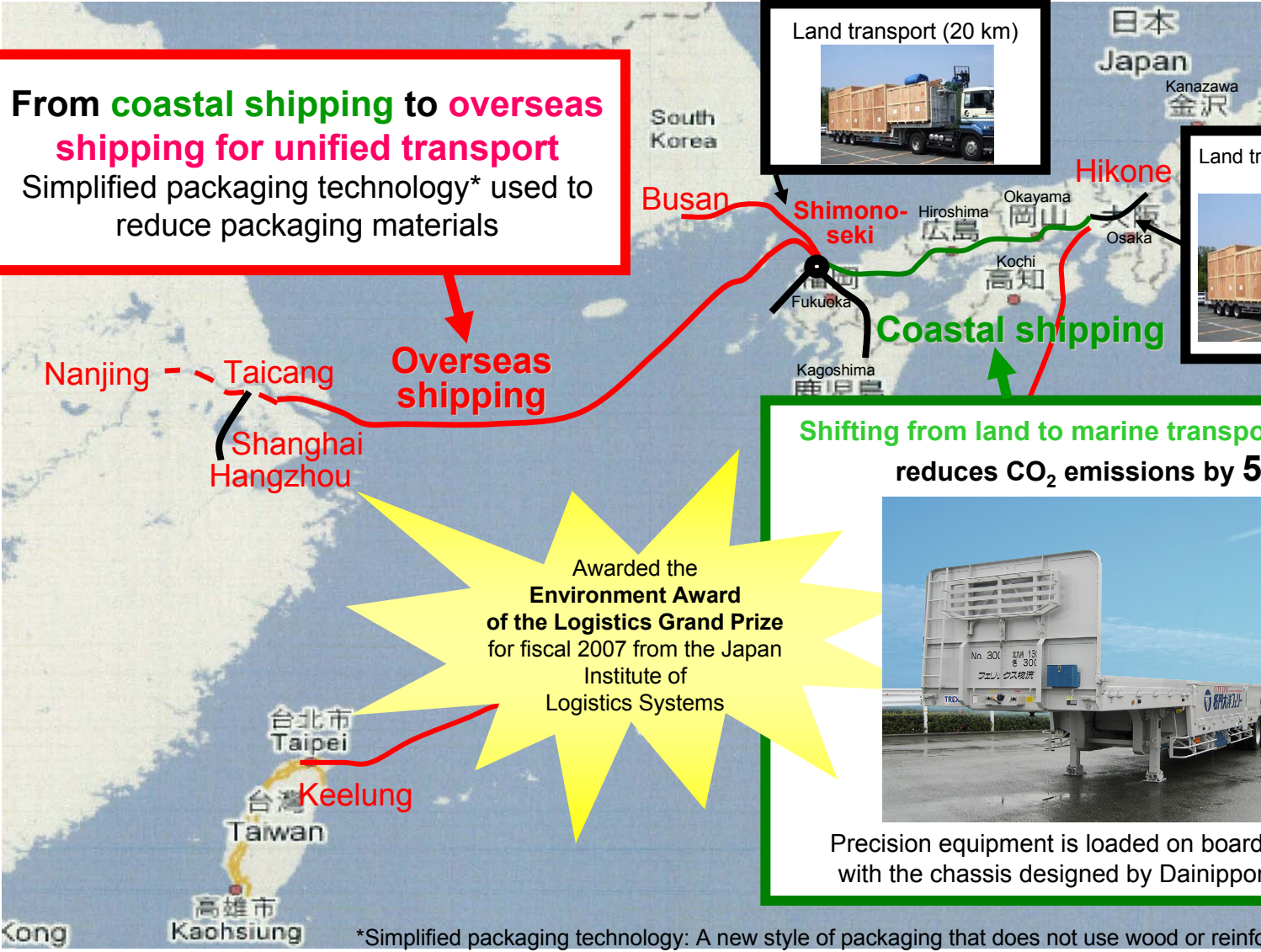


Shifting from land to marine transport (458 km) reduces CO₂ emissions by 55%



Precision equipment is loaded on board complete with the chassis designed by Dainippon Screen.

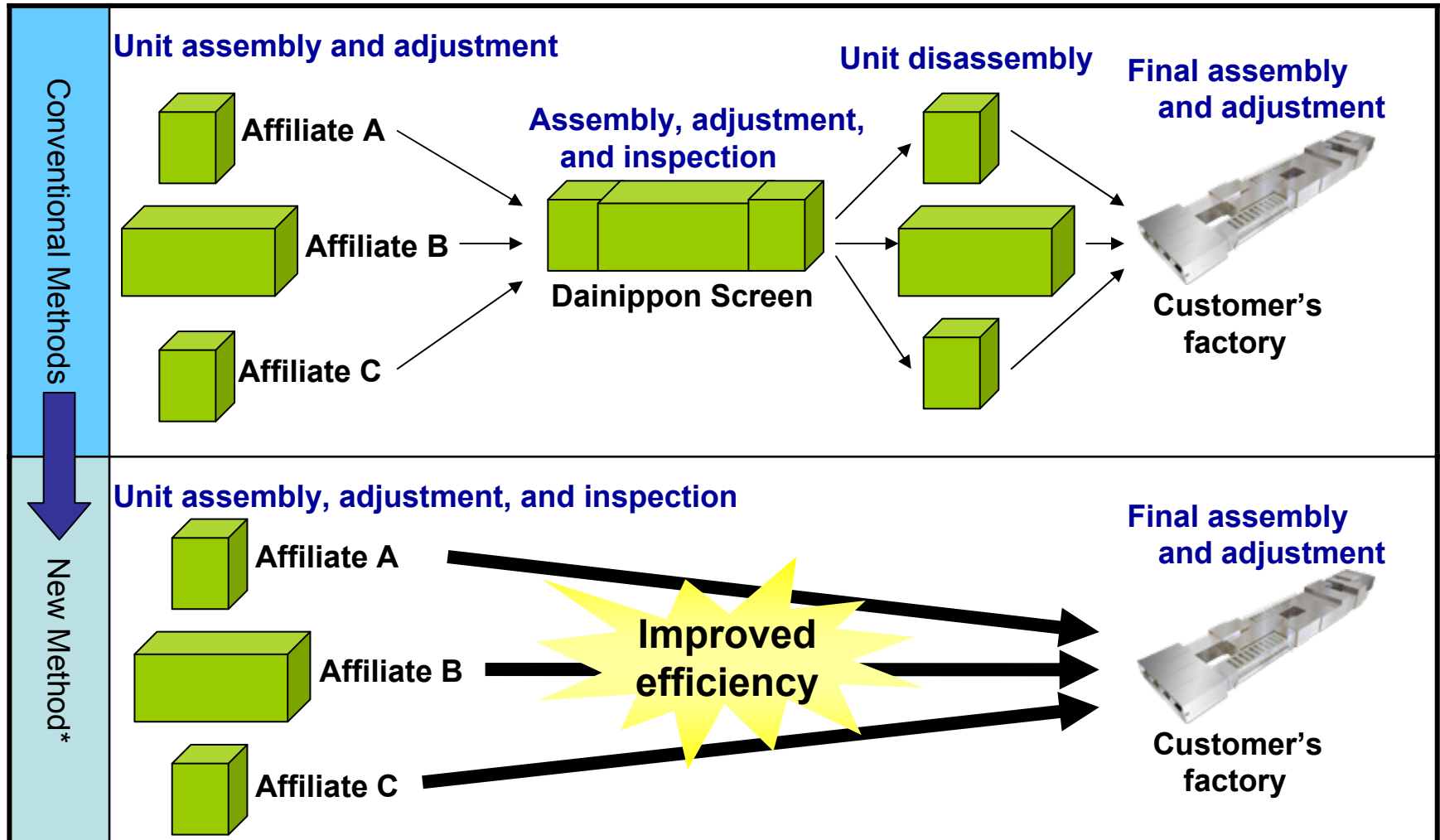
Awarded the Environment Award of the Logistics Grand Prize for fiscal 2007 from the Japan Institute of Logistics Systems



*Simplified packaging technology: A new style of packaging that does not use wood or reinforced cardboard.

CO₂ Reductions from Improvements to Logistics

■ On-site assembly reduces lead time, CO₂ emissions, and packaging materials.

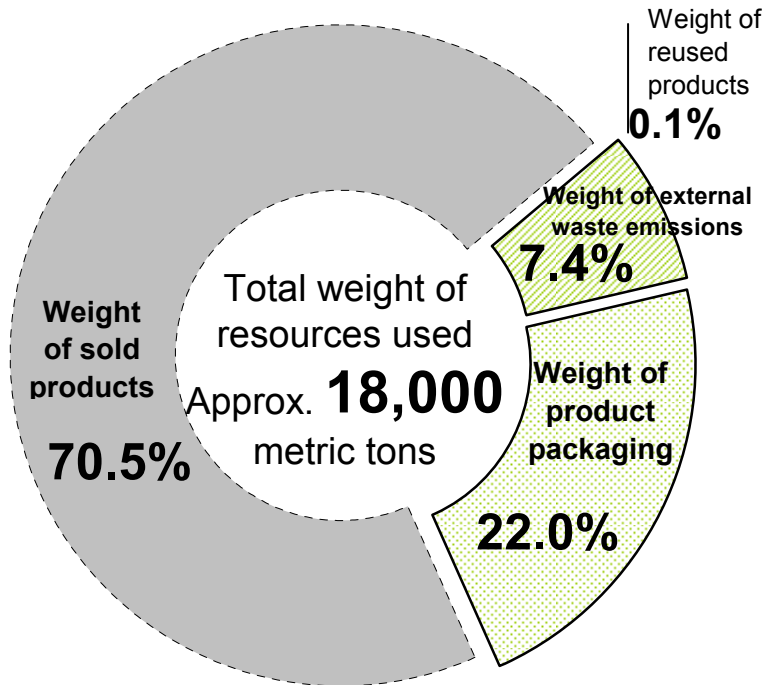


*New method is used from the second unit on for orders of multiple units.

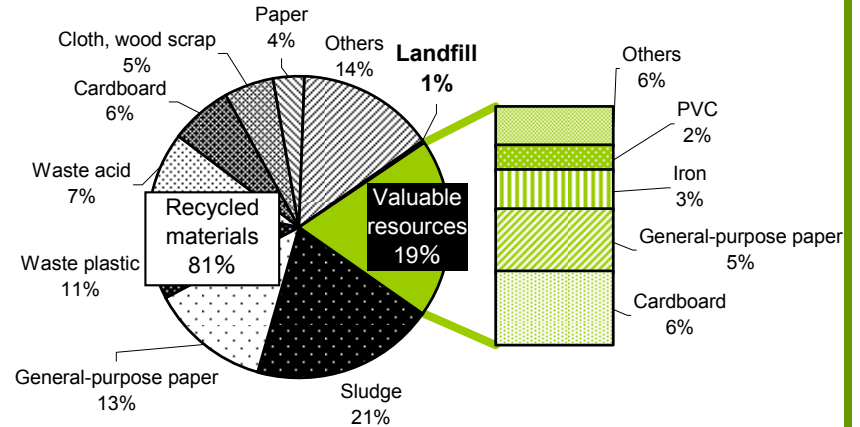
Breakdown of Resource Usage

Dainippon Screen is improving resource efficiency by cutting down on the weight of packaging materials used during product shipment and external waste emissions.

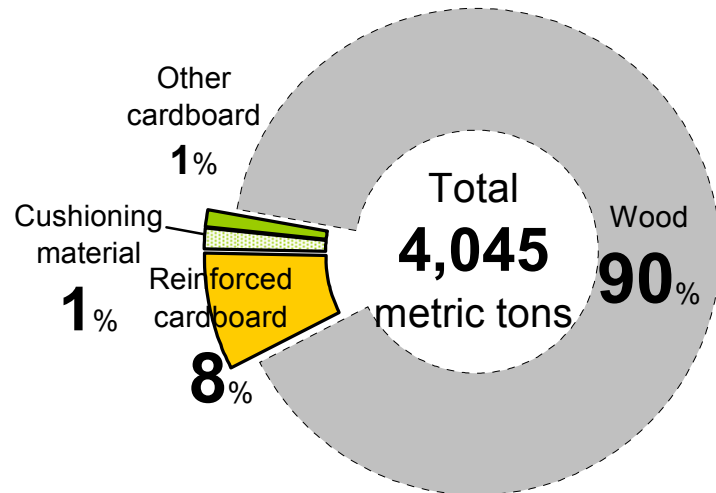
Breakdown of resource usage



Breakdown of external waste emissions



Breakdown of packaging materials used during product shipment



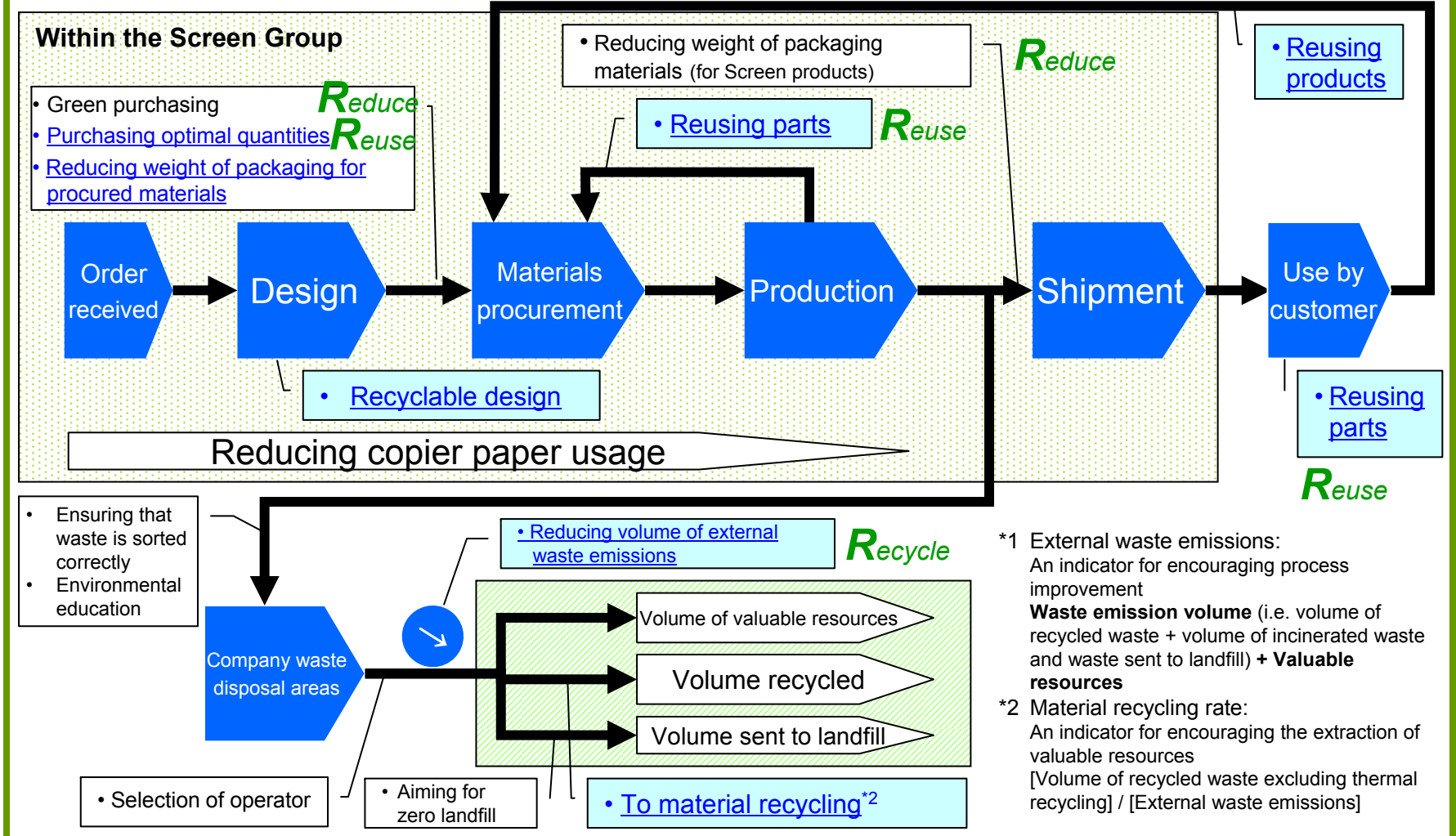
* Data: Fiscal 2008.

* Scope: Applies to domestic sites and Group companies with certified environmental management systems.

* Reuse, Recycle business: Weight of materials recycled by Screen Group company, Scientific and Semiconductor Manufacturing Equipment Recycling Co., Ltd.

Current Policy regarding Reduction of Waste

■ Dainippon Screen is stepping up our efforts to reduce waste by expanding our focus to include external waste emissions*1 as well as the volume of waste. (Specific improvement plans are underlined in blue.)

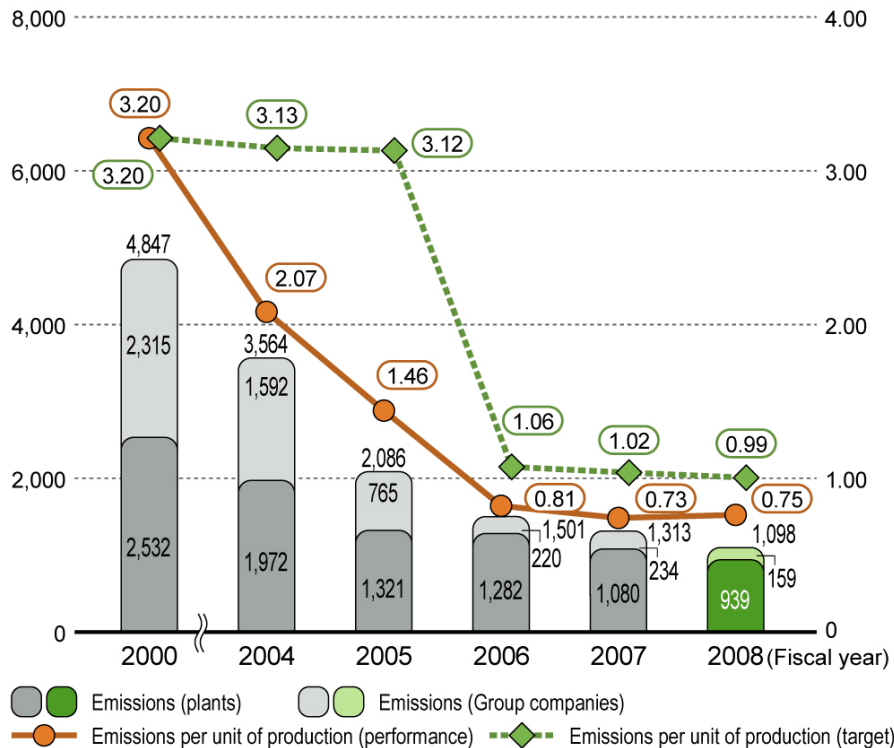


Efforts to Reduce Volume of External Waste Emissions

Targets for reduction of volume of waste emissions achieved by extraction of valuable resources and volume reductions.

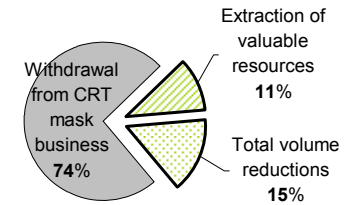
Volume of waste

(Metric tons) (Metric tons/100 million yen)



3,564 metric tons (Volume at start of Phase II)
 { 2,466 metric tons reduced during Phase II
 Savings of around 60 million yen in waste disposal costs

Breakdown of factors behind reductions



Extraction of valuable resources and volume reductions are introduced in detail over the following pages.

* Scope: Applies to domestic sites and Group companies with certified environmental management systems.
 * With the dissolution of DSTM (DST Micronics) following our withdrawal from the CRT mask business, Dainippon Screen revised our target in fiscal 2006, and reset the target by eliminating actual figures for DSTM from actual results from the benchmark year of FY2000.
 * Cost conversion: Based on Dainippon Screen's *Environmental Accounting Calculation Standards*.

Efforts to Reduce Volume of External Waste Emissions

■ Valuable resources have been achieved by developing relationships with recyclers and by sorting waste.

General-purpose paper:

Finding recyclers who can handle roll paper.

Wafers:

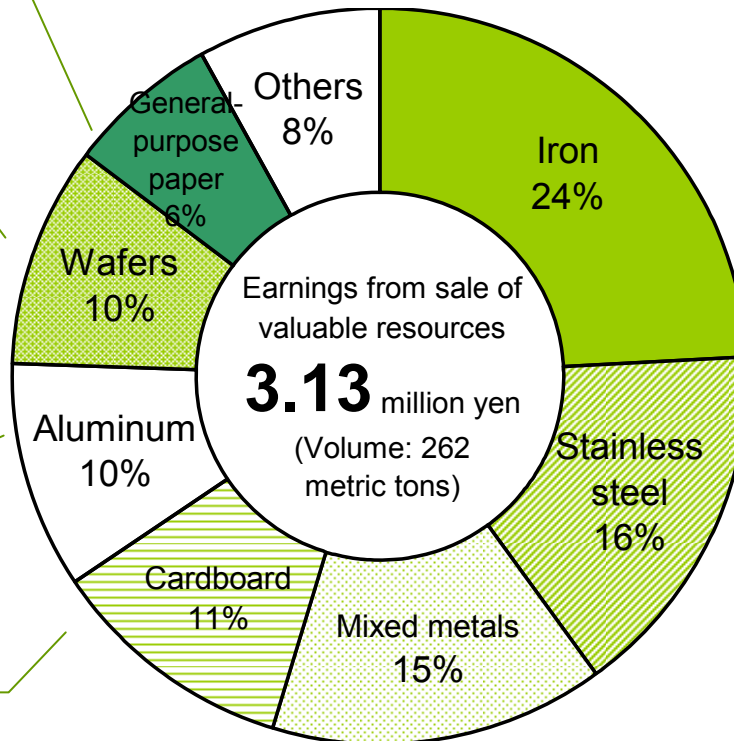
Finding recyclers who can handle used experimental wafers.

Aluminum:

Finding recyclers who can handle presensitized plates.

Cardboard:

Producing valuable resources by ensuring that waste is sorted correctly.



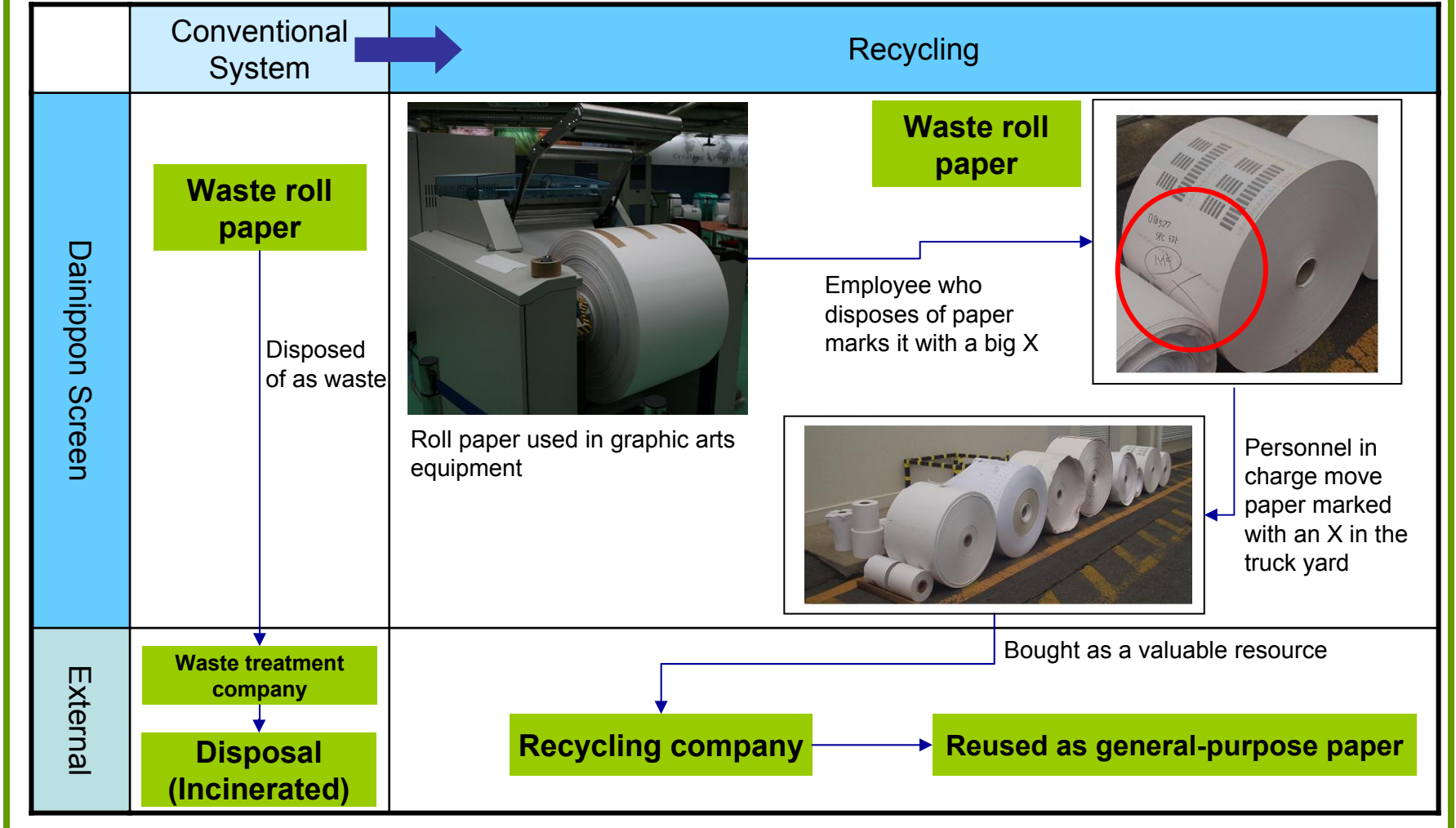
Metals:

Finding recyclers who can handle the electrical parts used in prototypes and PCs.

* Data: Fiscal 2008

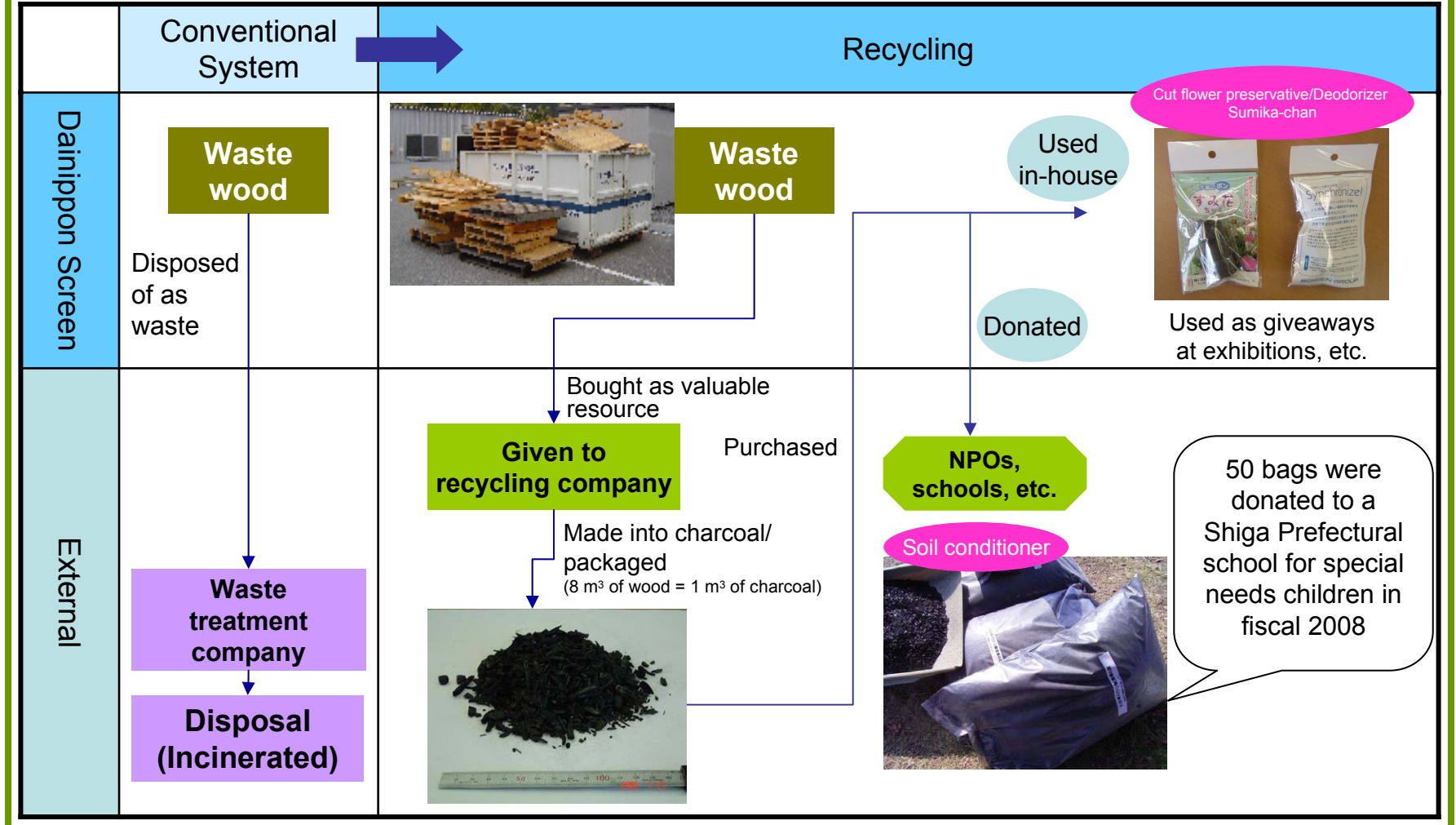
Efforts to Reduce Volume of External Waste Emissions

■ Examples of efforts to turn waste into valuable resources. Kumiya Plant has begun recycling the roll paper used in graphic arts equipment.



Efforts to Reduce Volume of External Waste Emissions

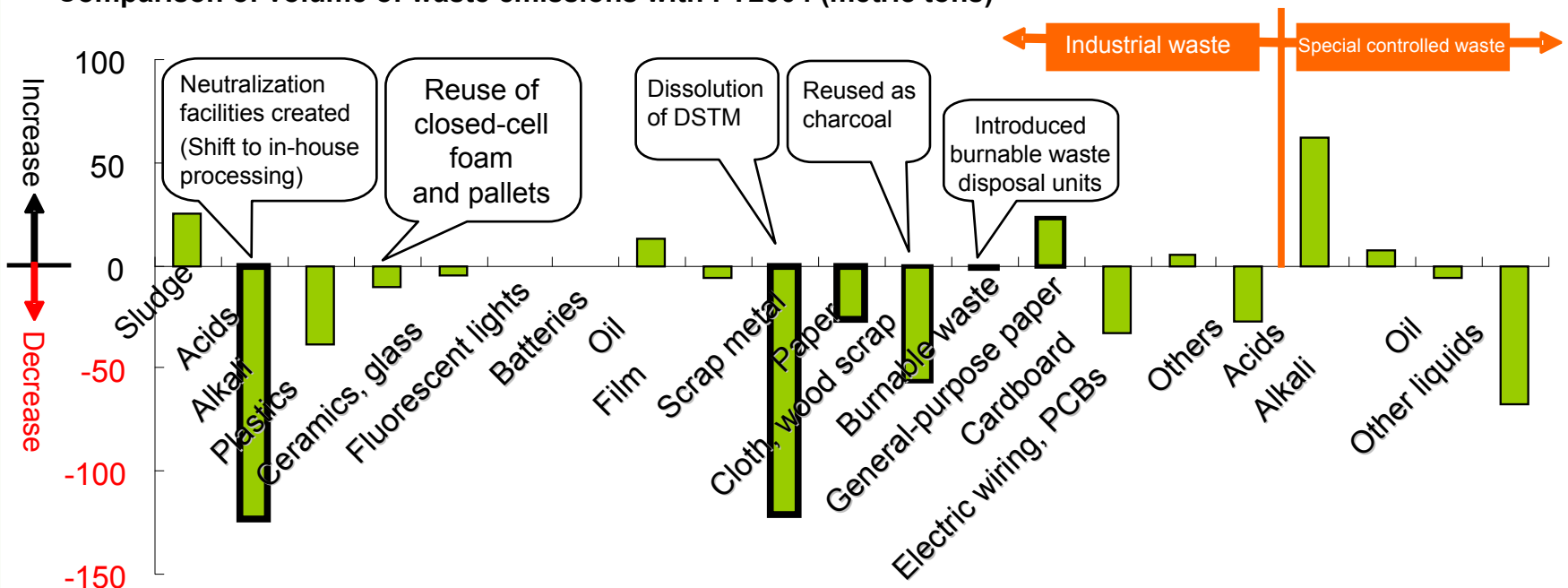
■ Examples of efforts to turn waste into valuable resources. Soil conditioner (charcoal made from waste wood) is donated to NPOs, schools, and other organizations.



Efforts to Reduce Volume of External Waste Emissions

■ Among other initiatives, efforts to reduce volume of waste include the creation of neutralization facilities, the reuse of pallets, and the reuse of waste as charcoal.

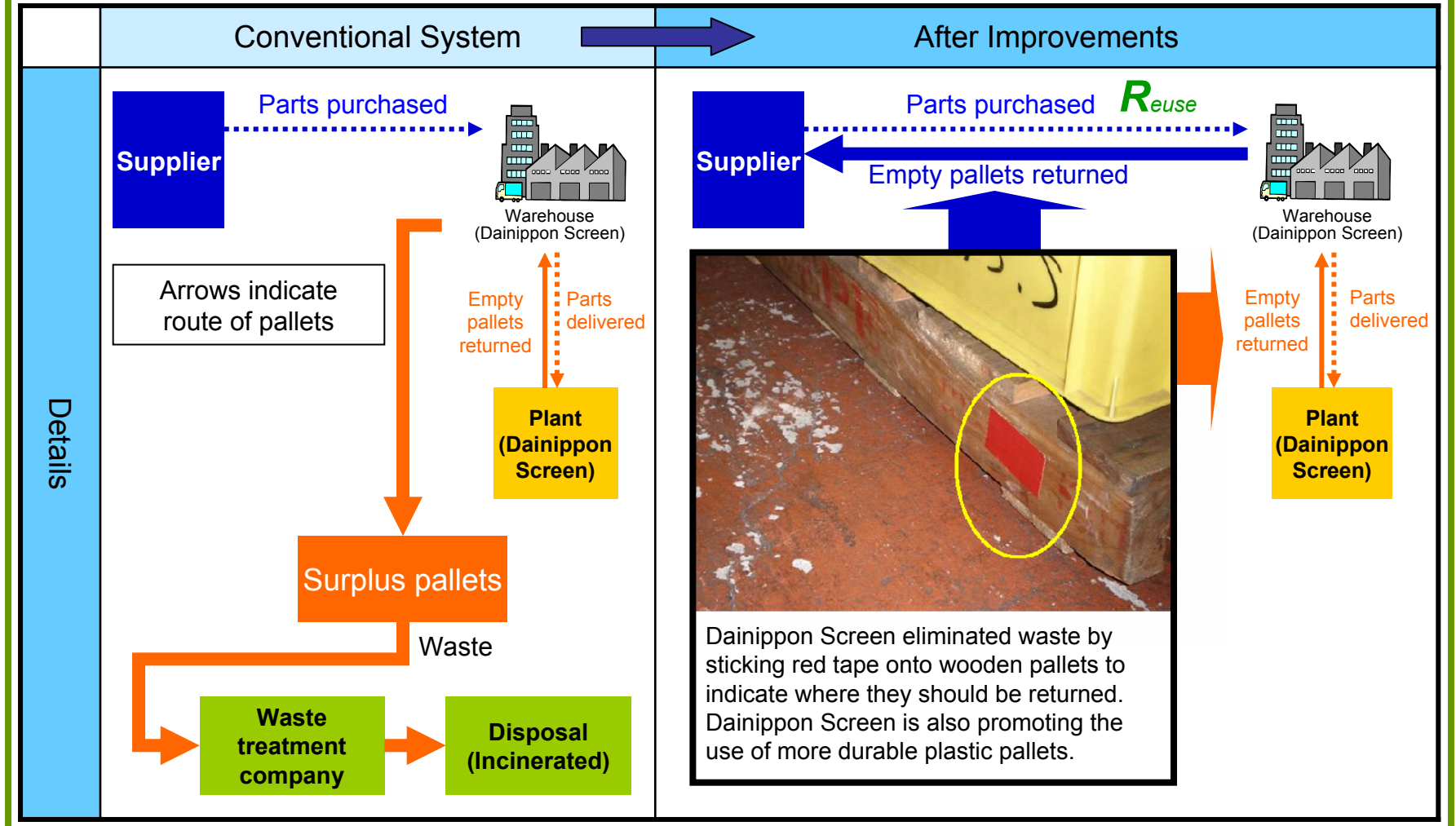
Comparison of volume of waste emissions with FY2004 (metric tons)



* Data: Comparison of fiscal 2004 to fiscal 2008 (Excluding valuable resource factors.)

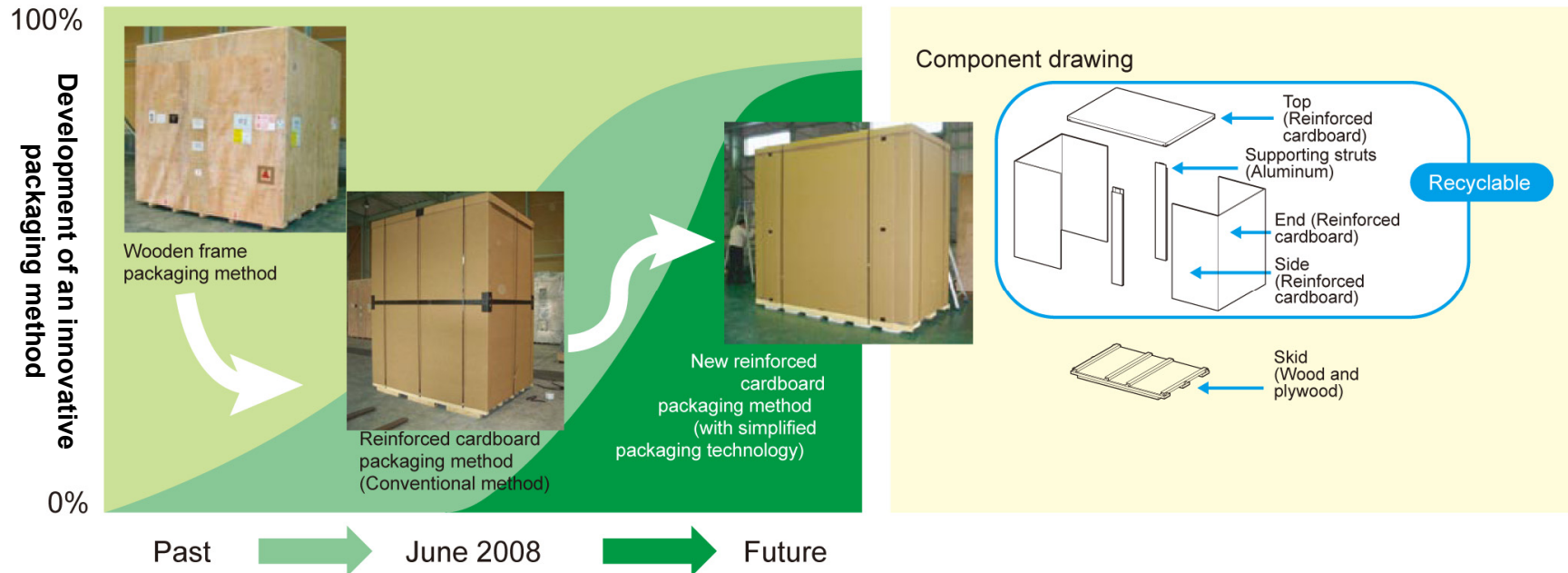
Efforts to Reduce Volume of External Waste Emissions

■ Example of efforts to reduce volume of waste. At the Kumiya Plant, Dainippon Screen now reuses the pallets used to deliver parts from suppliers.



Efforts to Reduce Weight of Packaging Materials

■ Our new world-first packaging technology enables packaging reuse and significantly reduces volume of wood material used.

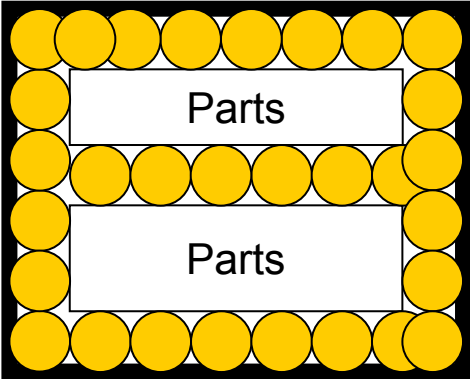



- Amount of wood used reduced by **70%**
- **Two-thirds** of packaging materials reused
- Elimination of nails and bolts **significantly reduces time required for assembly and disassembly**

* Simplified packaging technology developed by TRANSUP Japan Co., Ltd., is patent pending.
See the following website for more details (available in Japanese only): <http://www.screen.co.jp/press/NR080325.pdf>

Efforts to Reduce Weight of Packaging Materials

- The use of separators in packaging has enabled significant reductions in costs and the use of conventional cushioning materials.

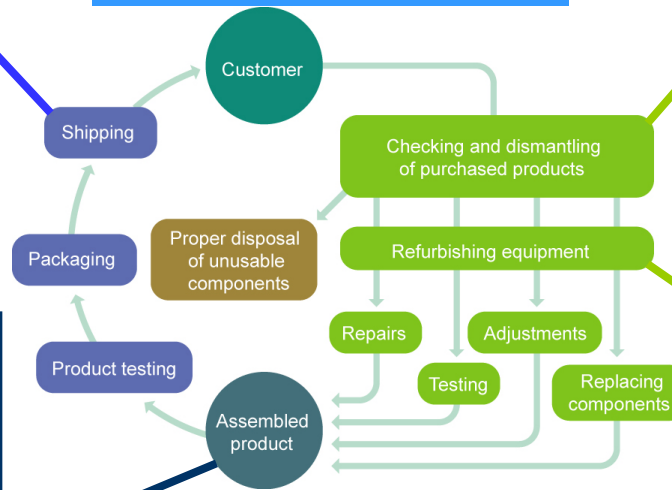
	Conventional System	After Improvements
Details	<p>Cushioning material (Bubble wrap)</p>  <p>Parts</p> <p>Parts</p> <p>Cardboard box</p>	<p>Separators made from cardboard</p>  <p>Reduced cushioning material use has enabled annual savings of 6 million yen and Efficient packaging.</p>

Product Recycling

■ Screen Group company, Scientific and Semiconductor Manufacturing Equipment Recycling Co., Ltd., is involved in the recycling of general electronic devices.

33 units* handled in FY2008.

*Total number of units processed including Dainippon Screen products.



Finished product



Stock warehouse



Assembly and adjustment

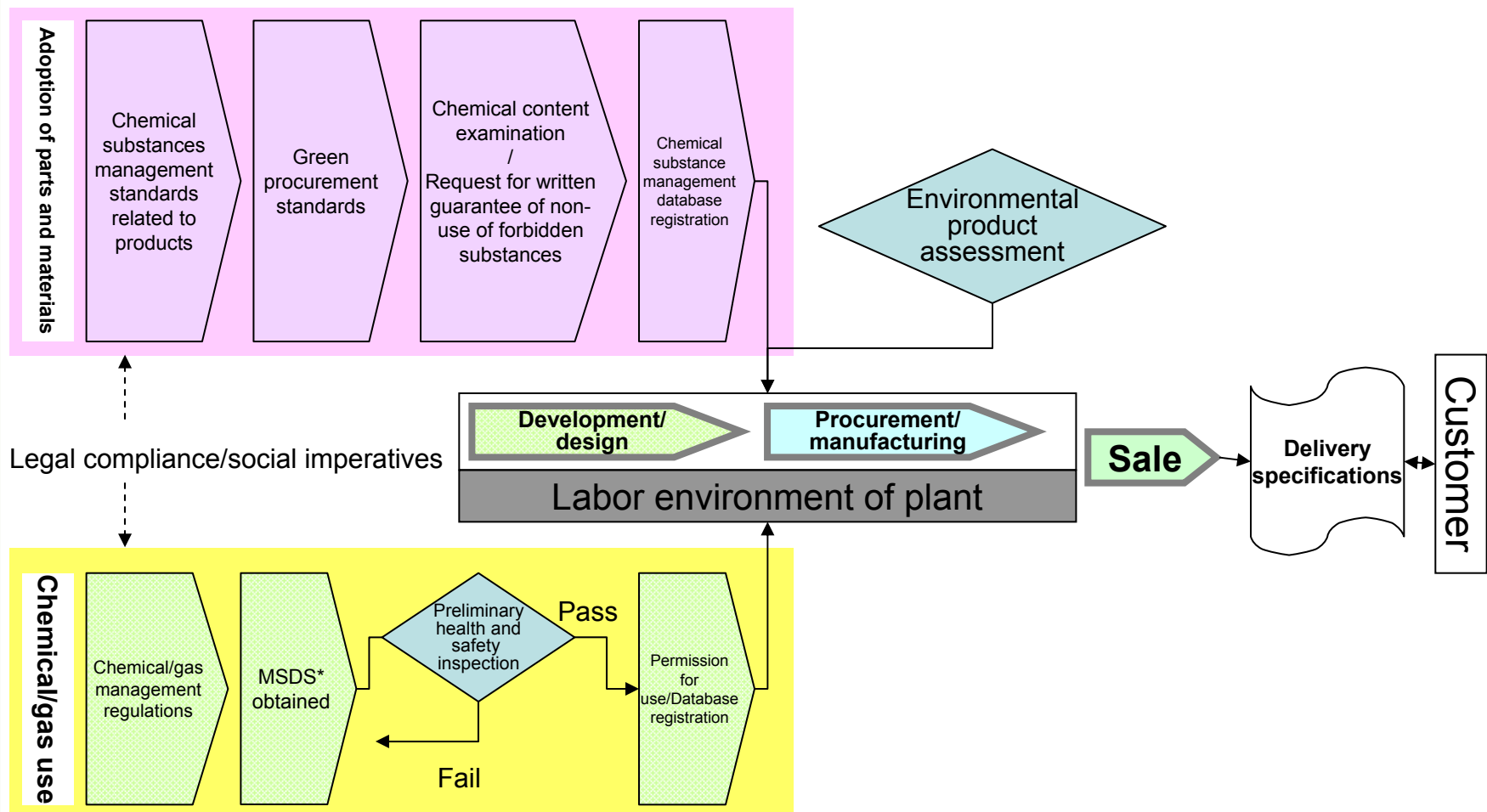


Design



System for Chemical Substance Risk Management

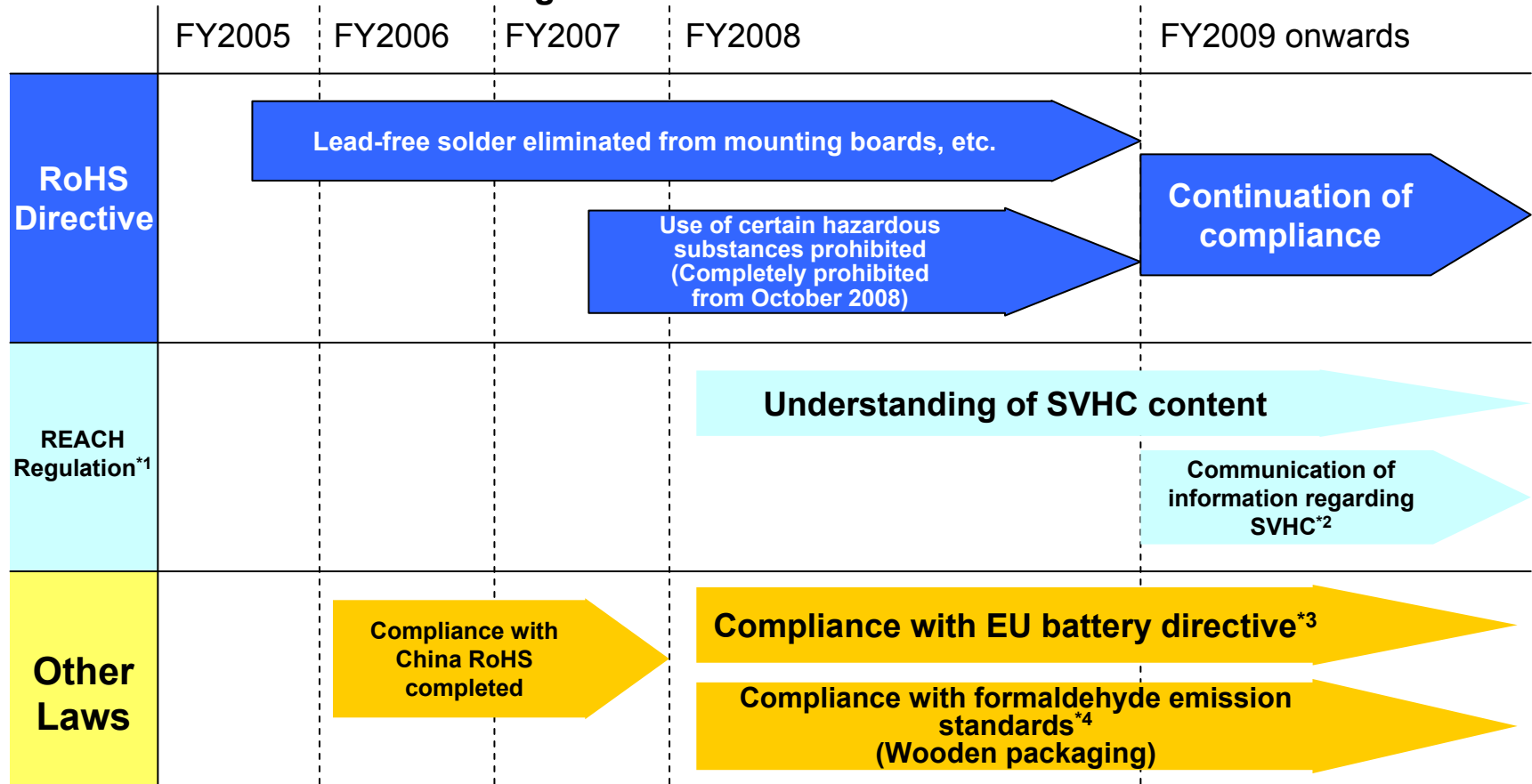
■ Dainippon Screen has set in-house management standards, and inspects and registers purchased parts and used chemical substances in consideration of legal compliance and environmental safety.



*MSDS (Material Safety Data Sheet): A document that must be supplied when conducting transactions involving PRTR substances.

Efforts to Reduce Amounts of Restricted Chemical Substances Used in Products

■ **Dainippon Screen is stepping up our efforts to reduce harmful chemical substances to meet RoHS and the REACH regulation*1.**



*1 REACH regulation: Regulation of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals. This regulation came into force on June 2007.

*2 SVHC (Substances of Very High Concern): If a molded product contains more than 0.1% by weight of an SVHC, the supplier of the product in question must communicate this fact to downstream users.

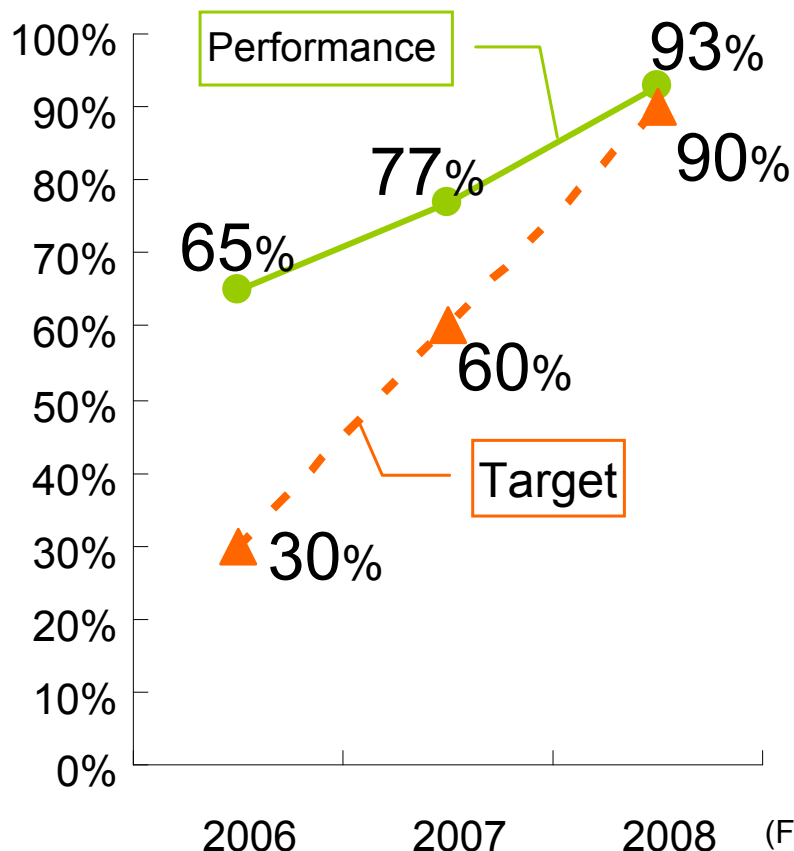
*3 EU battery directive: Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC.

*4 Formaldehyde emission standards: Standards controlling the atmospheric release of hazardous substances aimed at the reduction of formaldehyde emissions from plywood products. California state legislation.

Efforts to Reduce Amounts of Restricted Chemical Substances Used in Products

■ Green procurement ratio for parts raised to 93%.

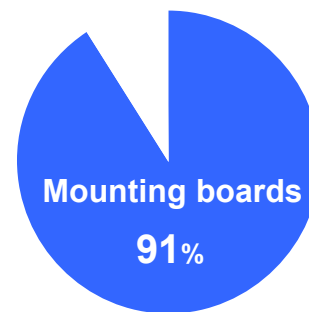
Changes in green procurement ratio



Green procurement criteria have been revised to comply with the RoHS directive, and suppliers have been asked to use alternatives and provide information on the chemicals in the products.

■ Ratio of products containing lead-free solder has been raised to almost 100% to comply with the RoHS directive.

Ratio of products containing lead-free solder

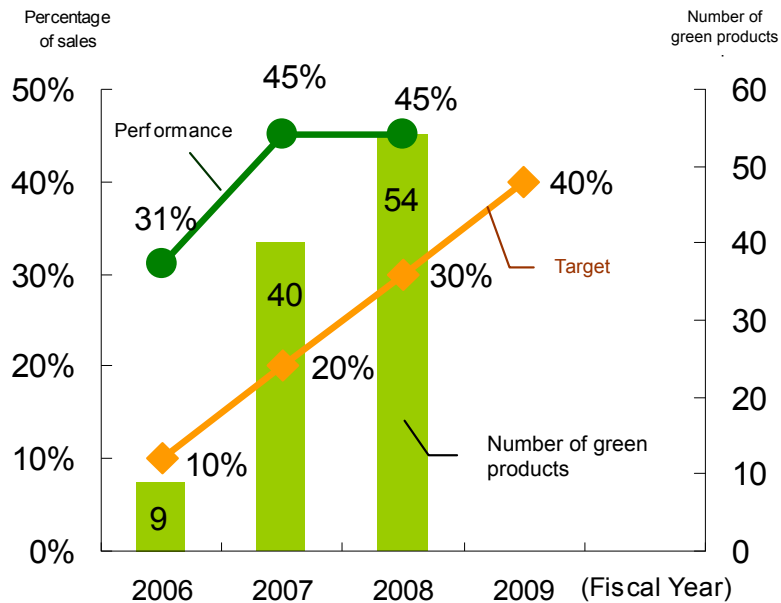


* Data: Fiscal 2008

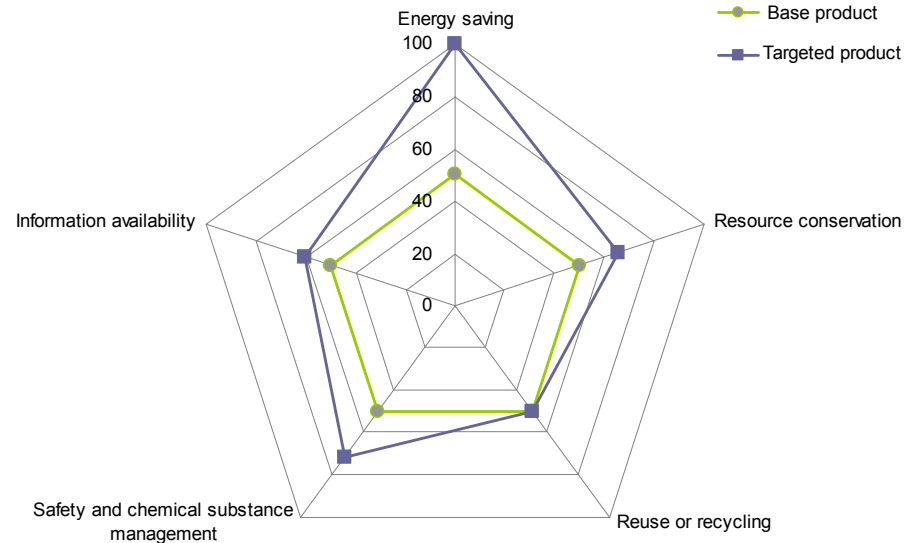
Green Products (Environmentally-friendly Products)

■ Expanding the range of green products that meet our assessment criteria.

Changes in percentage of sales and number of green products



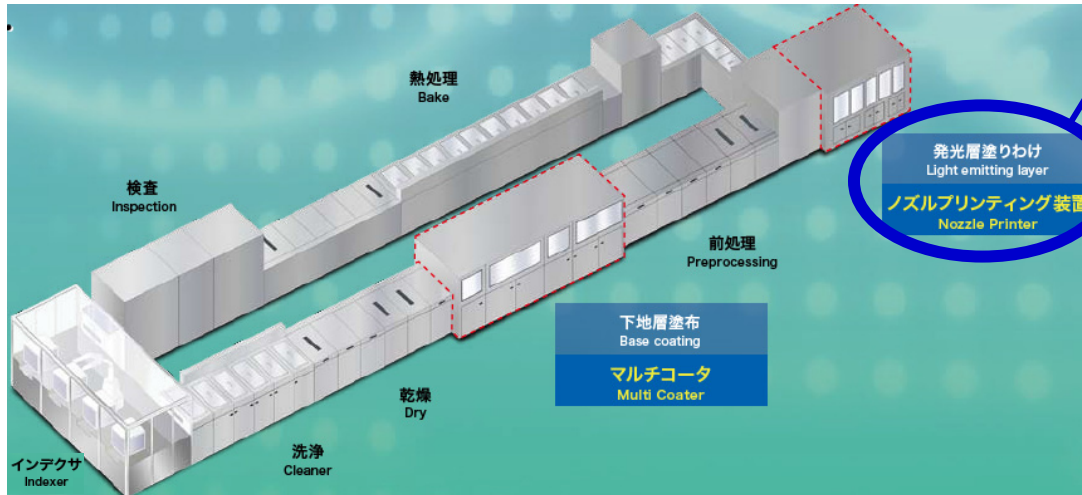
Green product assessment items



Figures are calculated by comparing each targeted product with the base product, which is assigned a rating of 50 points. Products that meet our assessment criteria are certified as green products. Higher ratings are given to items that have been improved significantly.

Total Line for Mass Production of Energy-efficient Large-sized OLED Panels

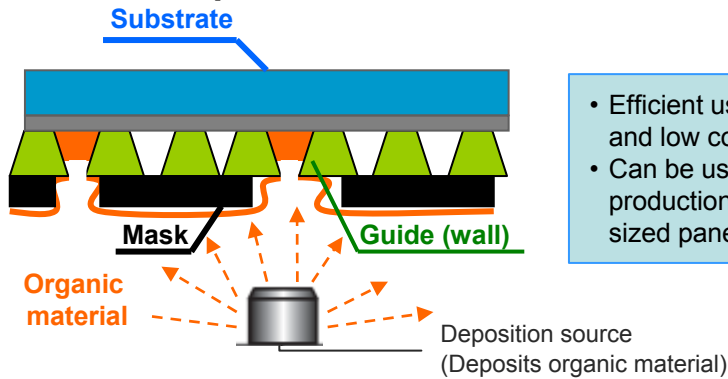
■ Dainippon Screen has established an OLED production process based on world-first multi-nozzle printing technology, which uses DuPont's small molecule-based OLED solution materials.



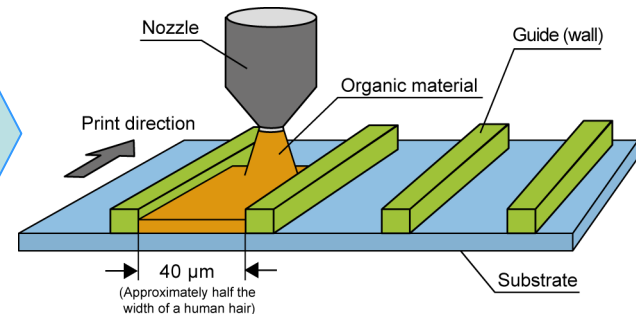
Nozzle printer



Vacuum deposition (Conventional method)



Nozzle printing (New method)



Film Thickness Measurement System for Environmentally-friendly Solar Cell Panels

- **Dainippon Screen enters solar cell industry. Plans to grow solar cell field as new core business.**



RE-8000 Ellipsometric Film Thickness Measurement System

Dainippon Screen entered the solar cell industry with its display at PV Japan 2008 (Japan's largest solar power exhibition, held from July 30 to August 1, 2008), commencing sales of film thickness measurement systems for solar cell panels*.

* Solar cell panels: Panels used for solar power generation that contain multiple solar cells connected so as to provide the required voltage and current.

See the Dainippon Screen website for more details (available in Japanese only): <http://www.screen.co.jp/press/NR080723-2.pdf>