

# **Current Status of the Mid-Term Management Plan**

***SZ-20***

**May 9, 2013**

**ZEON CORPORATION**

**Naozumi Furukawa**

**President & CEO**

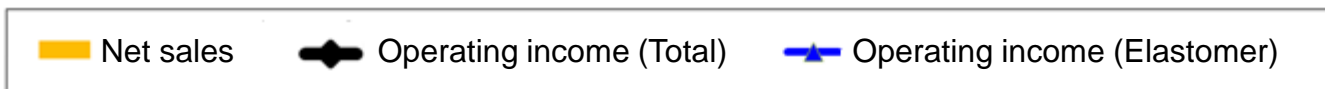
**I. FY2012 Results and Business Environment**

**II. Mid-term Management Plan *SZ-20***

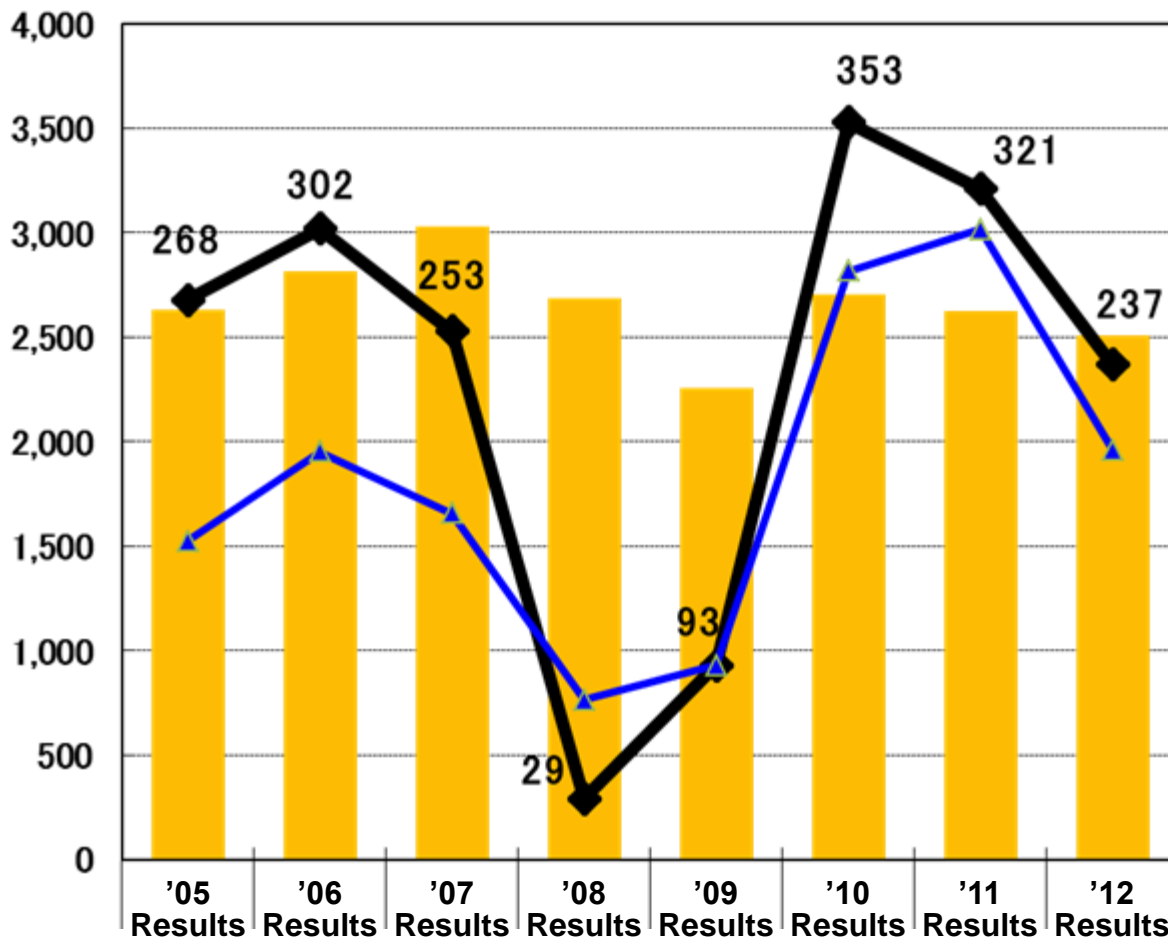
**III. Business Topics**

**IV. Performance Goals**

# Consolidated Results



Net sales  
(100 million yen)

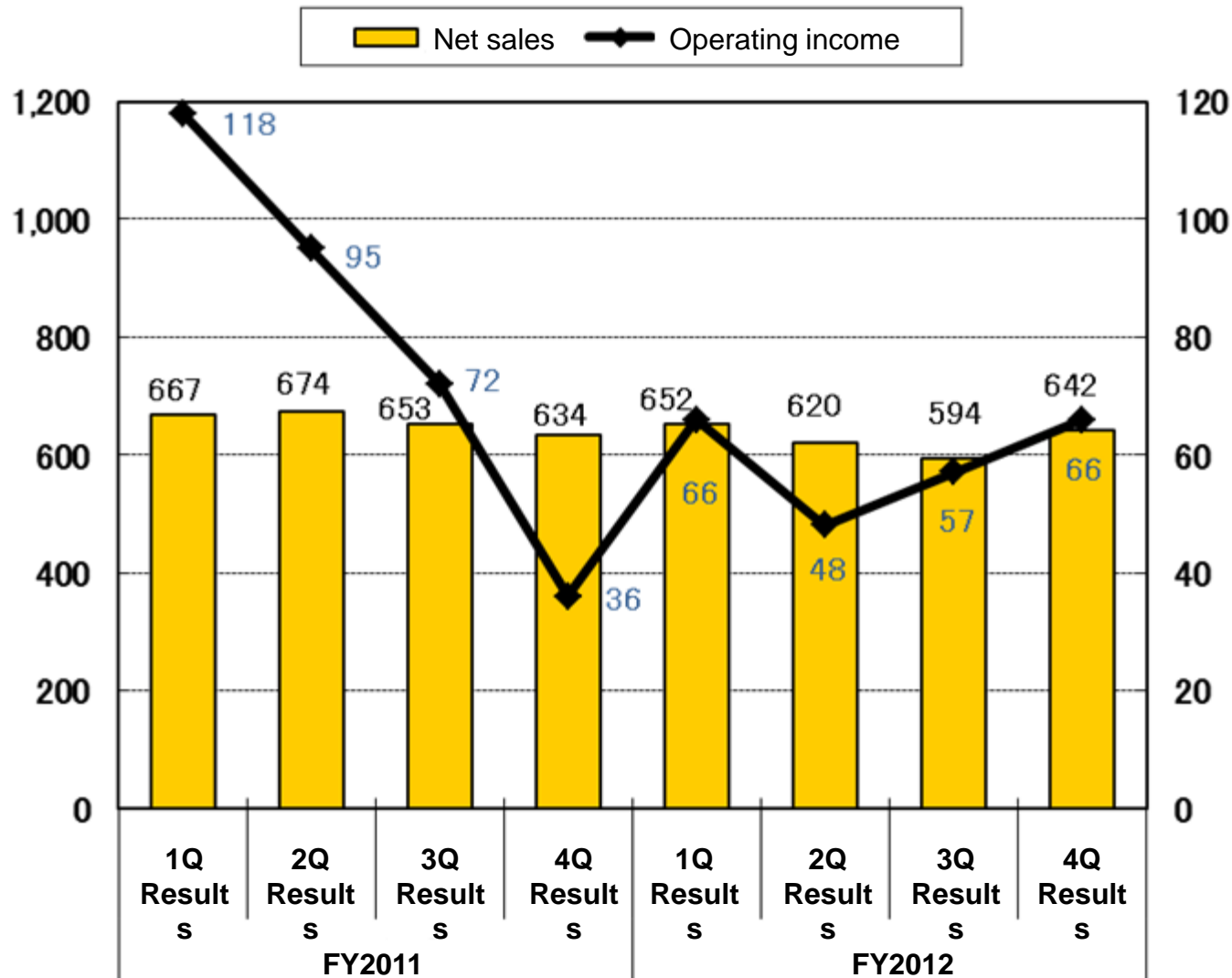


Operating income  
(100 million yen)

FY

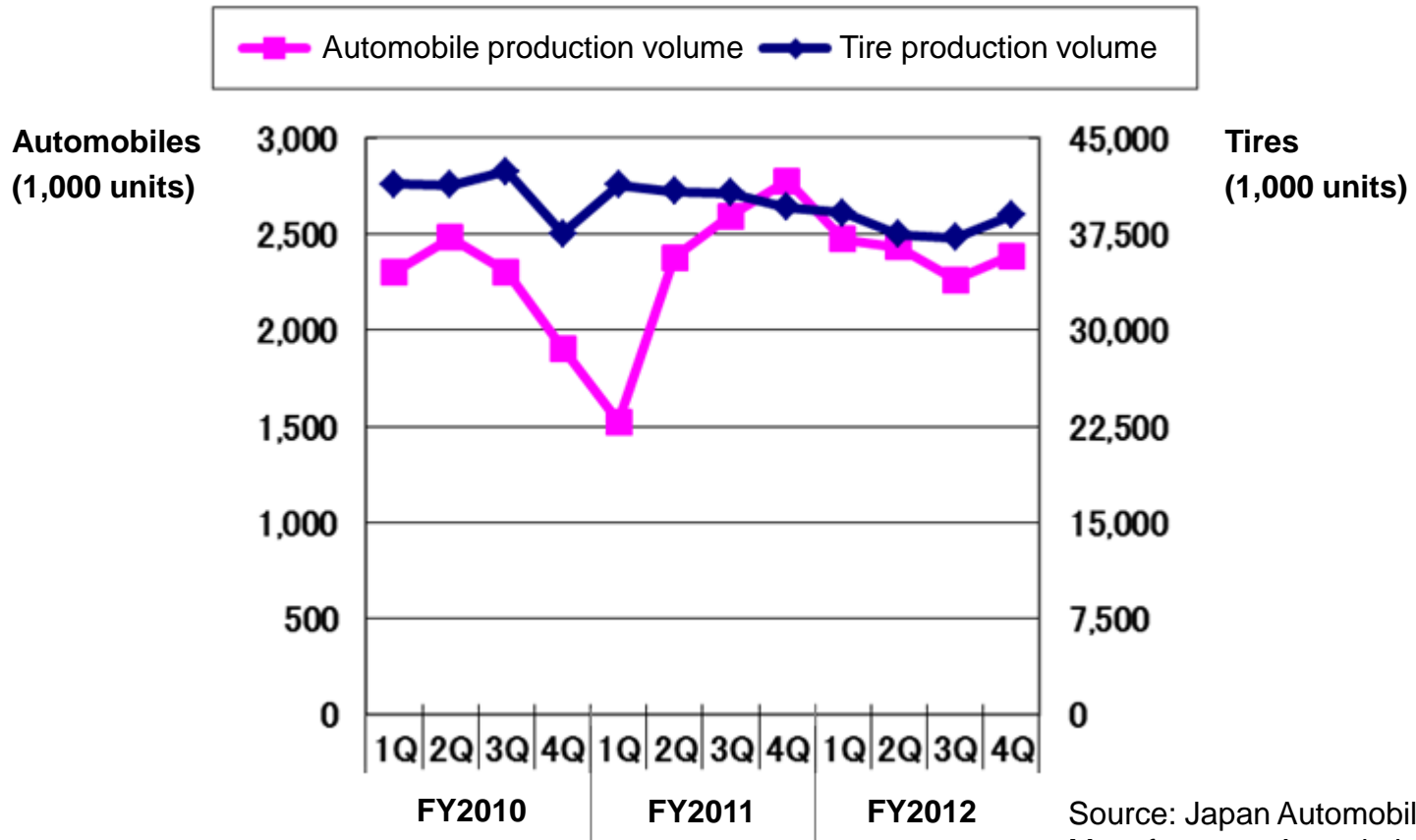
# Consolidated Results – Quarterly

Net sales  
(100 million yen)



Operating income  
(100 million yen)

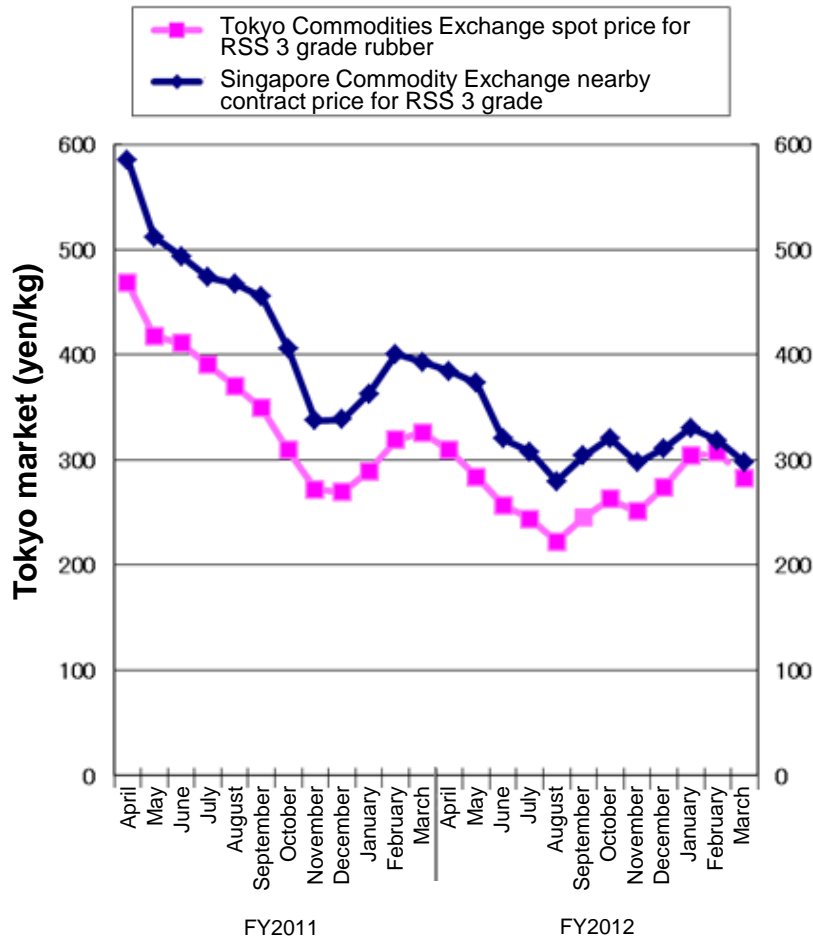
## Domestic Production of Automobiles and Tires



Source: Japan Automobile Manufacturers Association, Inc. and the Japan Automobile Tyre Manufacturers Association, Inc.

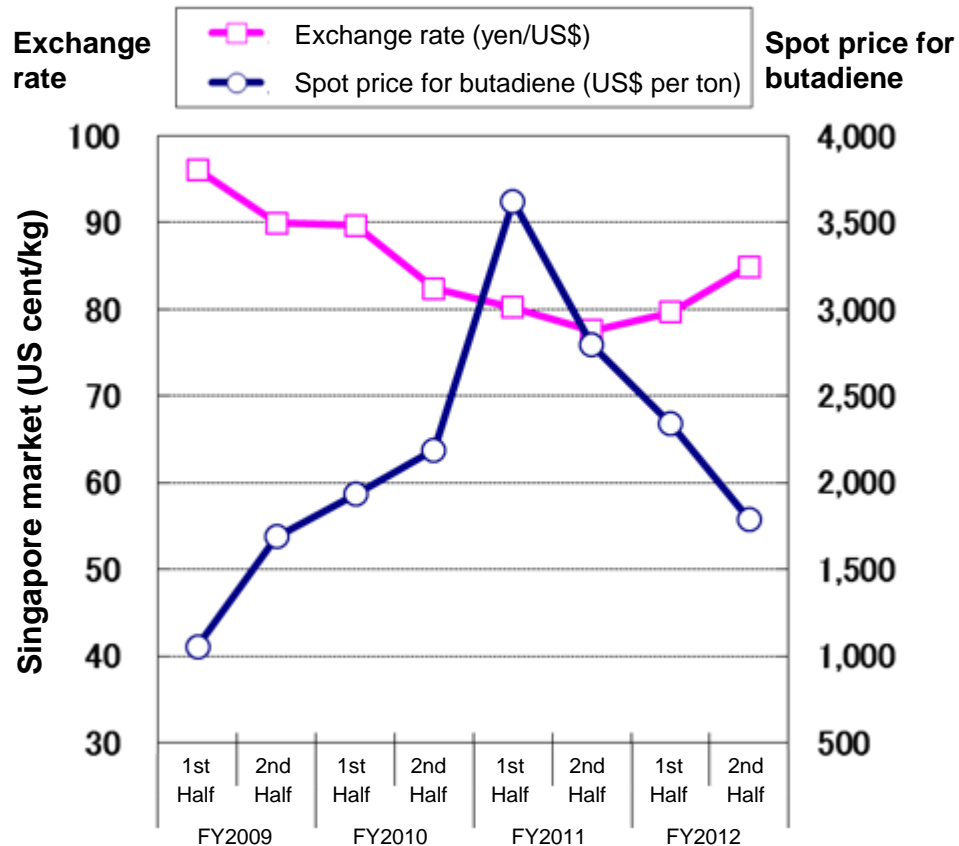
# Economic Environment

## Natural Rubber Market



Source: Monthly Statistic Report for Synthetic Rubber

## Exchange Rate and Butadiene Market



Butadiene market – Asian spot market

# SZ-20

Evolve ideas toward execution from  
FY2011 through FY2013

Key sense  
of value

Speed

Dialogue

Social  
contribution

Treasured ZEON  
characteristics

Mutual trust and  
fellowship

Enterprise Blueprint for 2020

ZEON makes the future today  
through the power of chemistry

ZEON will continue to contribute to the  
realization of customer dreams and a  
prosperous society

**Further Strengthen our Elastomer Materials and Specialty Materials  
Businesses for Globally Expanding Operations**

**FY2020 consolidated net sales:  
500 billion yen**

**FY2020 overseas production ratio:  
50%**

### **Strategy by Business Segment**

#### **Elastomer Materials Business**

**Further strengthen competitive  
businesses by responding  
globally to growth markets**

#### **Specialty Materials Business**

**Expand operations by accelerating  
R&D in the three key fields**



## Strategy by Business Segment

### Elastomer Materials Business

**Further strengthen competitive businesses by responding globally to growth markets**

### Specialty Materials Business

**Expand operations by accelerating R&D in the three key fields**

Further Strengthen Competitive Businesses by Responding Globally to Growth Markets



PSC (Powder Slush Compound) Plant in China

China  
ZEON (Shanghai) Co., Ltd. Established.  
PSC Plant

United States  
Additional Zetpol®  
production facility  
Additional acrylic rubber  
production facility

Thailand  
Additional petroleum  
resins production  
facility

South Korea  
Sales base



ZCLP Texas Plant

Tokyo Zairyo (India)  
Private Limited  
Sales base

Vietnam  
Processing base

Singapore  
S-SBR production base



Zeon Manufacturing Vietnam

- Previously established production bases
- New production bases
- Previously established sales bases
- New sales bases

Bases in red begin operations in FY2013.

## Responding to Automotive Materials with Higher Functionality

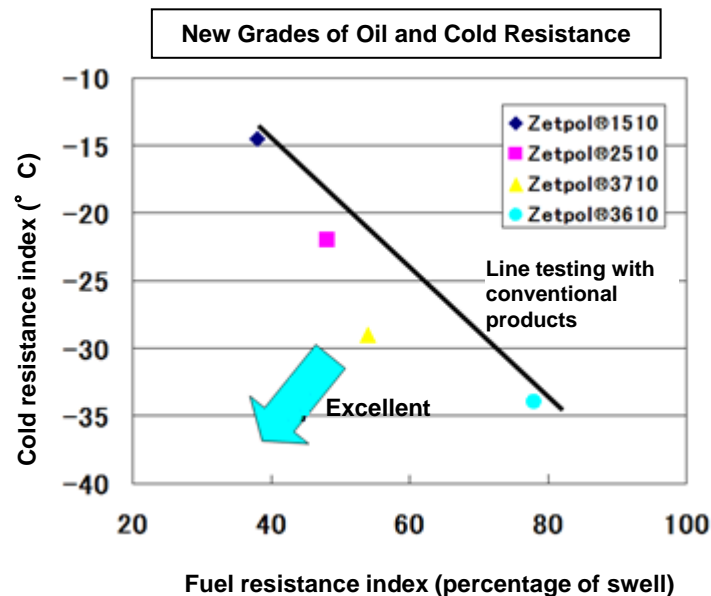
### 1. Operation of a new facility (at ZEON's Kawasaki Plant)

Full-scale commercial production started in March 2013.



### 2. New product development

Four grades were developed to meet a wide range of applications.

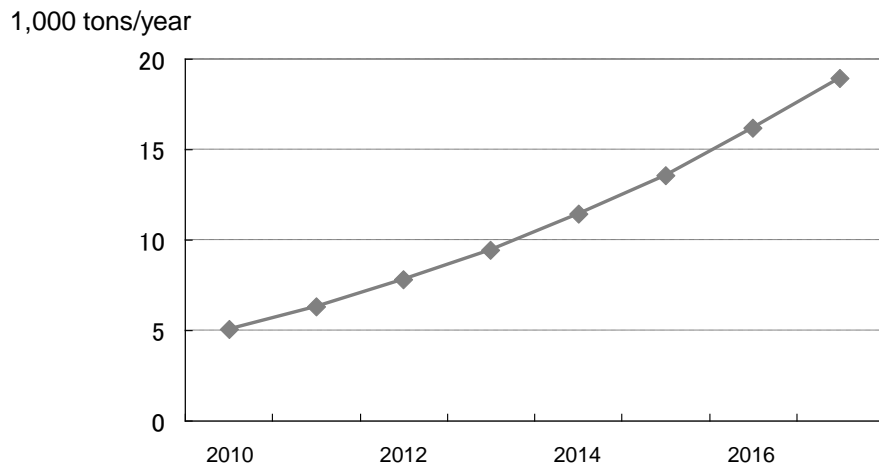


### 3. Application for new grades under development



**ZEON has succeeded in the commercialization of E-IR, and expanded sales targeting surgical gloves and other items.**

**Size of the Surgical Glove Market  
(Converted volume of E-IR, forecast by ZEON)**



- Nipol®ME1100 went on the market in February 2013. Production of surgical gloves and supply to customers (in Japan and overseas) began.
- Facilities at OEM partners will be expanded by the end of FY2013 to boost supply capability.
- Further expansion and new construction of facilities will be considered in accordance with market growth.



**Construction of facilities**

**First expansion of facilities  
(500 tons/year)**

**Existing facilities  
(150 tons/year)**

## Strategy by Business Segment

### Elastomer Materials Business

Further strengthen competitive businesses by responding globally to growth markets

### Specialty Materials Business

Expand operations by accelerating R&D in the three key fields

### Three Key Specialty Material Fields

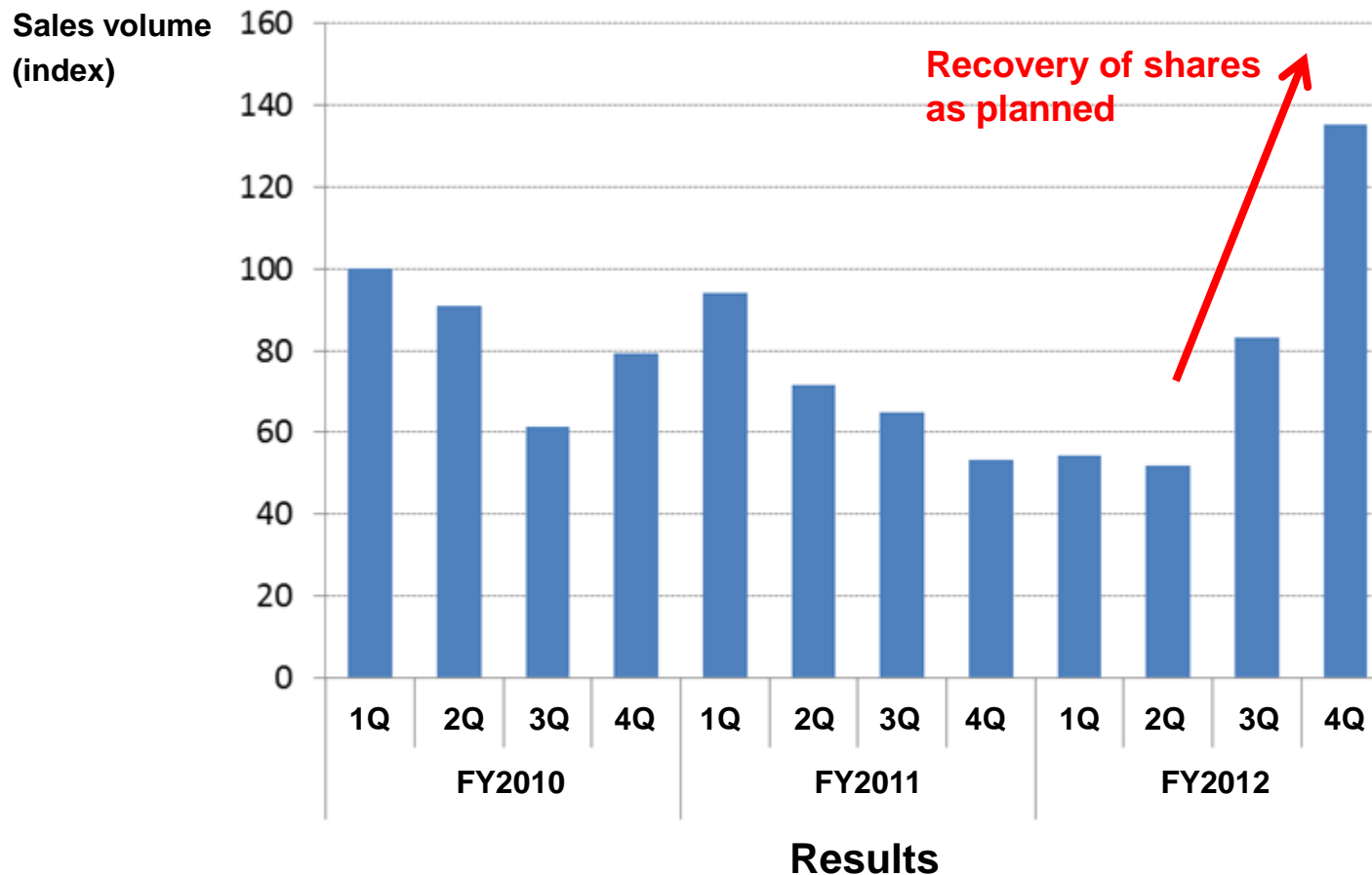
**IT components**  
Optical, packaging, electronic applications

**Energy components**

**Medical devices**

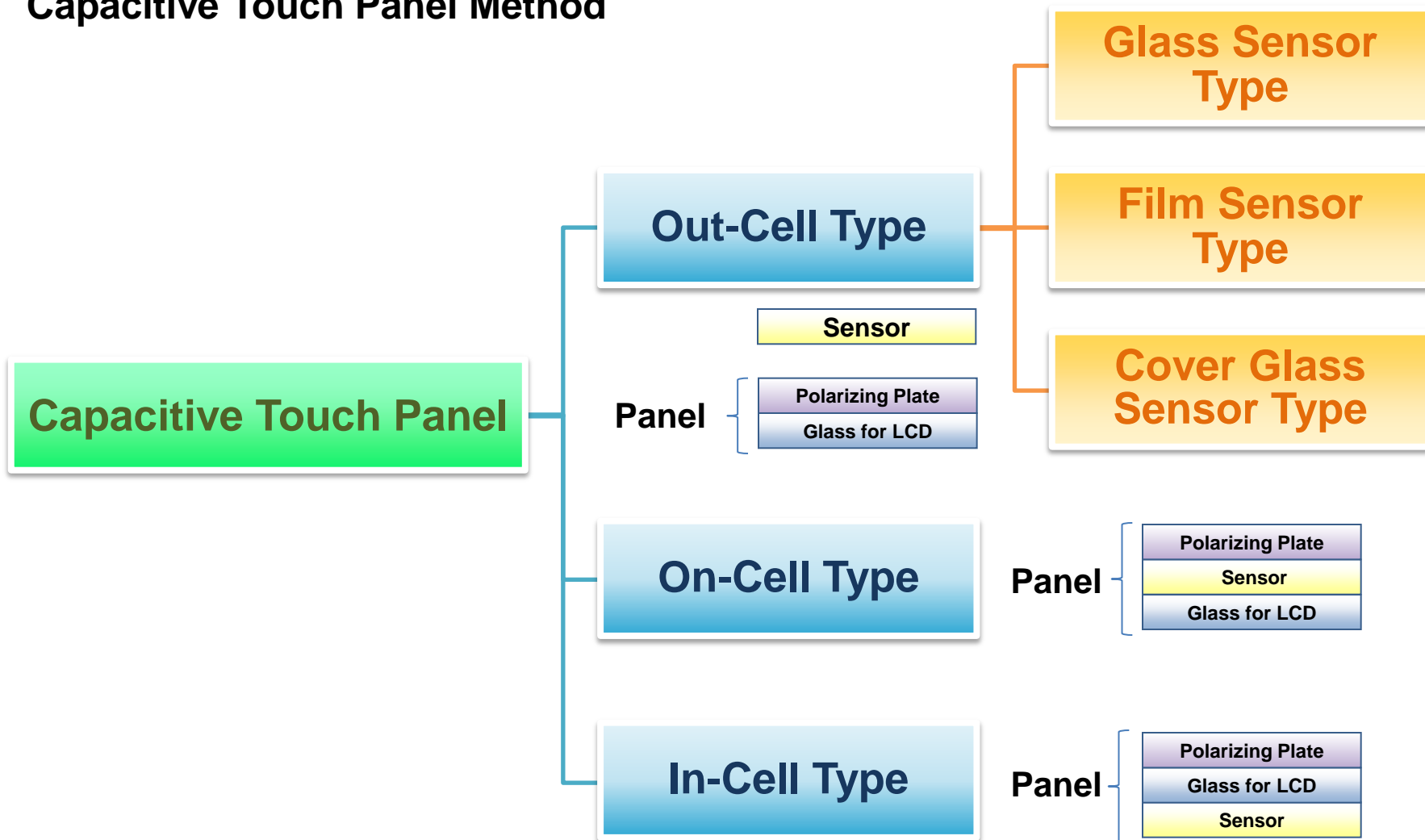
**Specialty Materials**

## Changes in Sales Volume of ZEON Optical Film



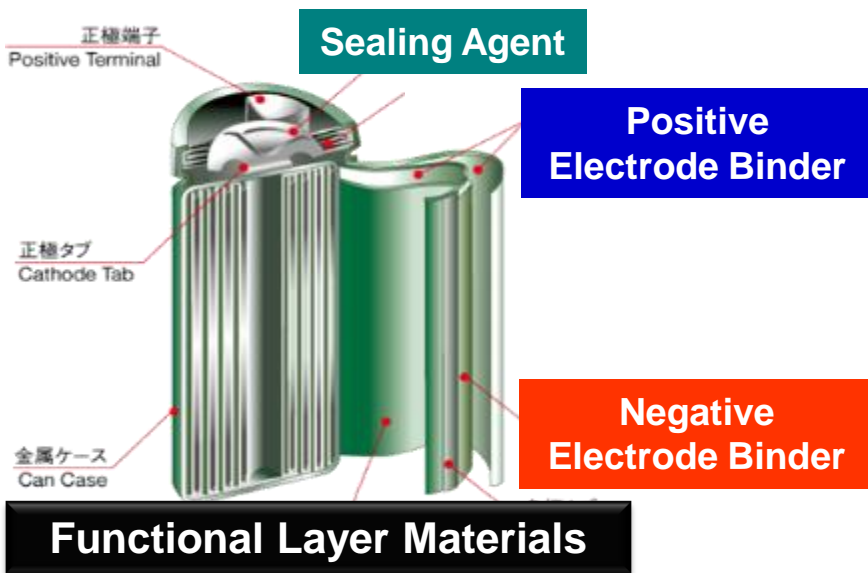
Index is calculated based on sales volume in the first quarter of FY2010 as 100.

## Capacitive Touch Panel Method



With a strengthened product line-up, the energy materials business has been successfully expanded beyond the company's original goals.

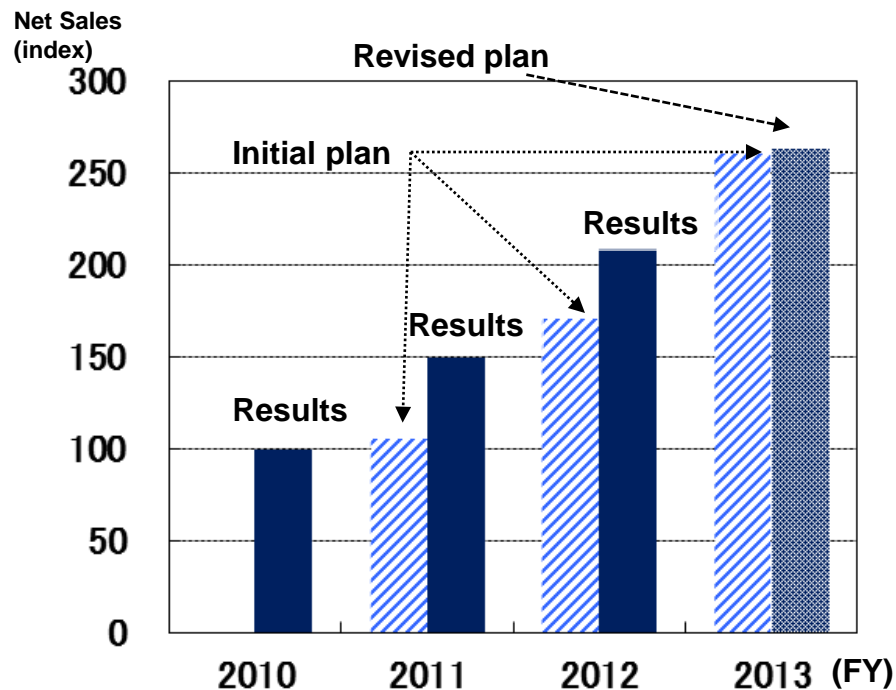
## ZEON Products for Lithium-ion Batteries



**Safety**  
**Longevity**  
**Filling properties**

Functional layers (porous layers) enhance these properties.

## Sales of ZEON's Battery Materials



Note: Index is calculated based on sales in FY2010 as 1.

Thanks to a strengthened product line-up, this business has seen more than 10% growth (Source: B3), which was the market growth rate in 2012.



Market share improved due to a variety of products for bile duct stents.

### Bare-metal bile duct stent Zeostent Plus

Stent shape for  
high patency rates

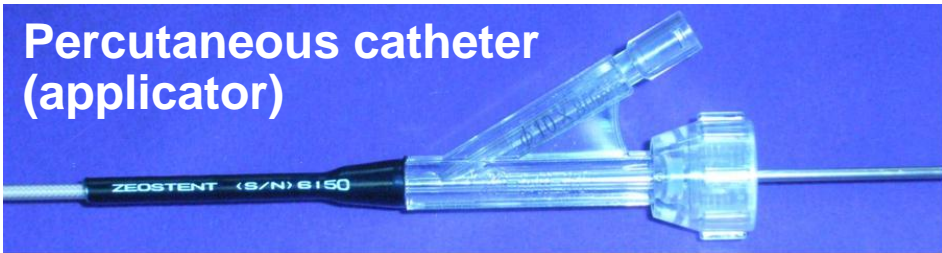


### Covered bile duct stent Zeostent Covered

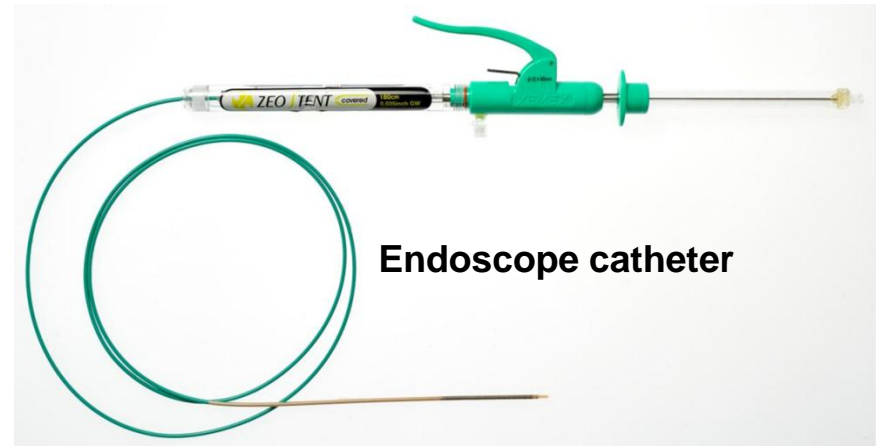
Stents in a variety of sizes by  
centimeter are available.



### Percutaneous catheter (applicator)



### Endoscope catheter



### Zeostent Features

- Both bare-metal stents and covered stents are offered for percutaneous and endoscope catheters.
- Shortening less likely due to laser cutting. (good for indwelling)
- Flexible stents are more gentle on the bile duct.

We began producing and providing samples of Carbon Nano Tubes (CNTs).

## Carbon Nano Tube Business: CNT Production

**NEDO**  
Achieved CNT capacitor  
development project

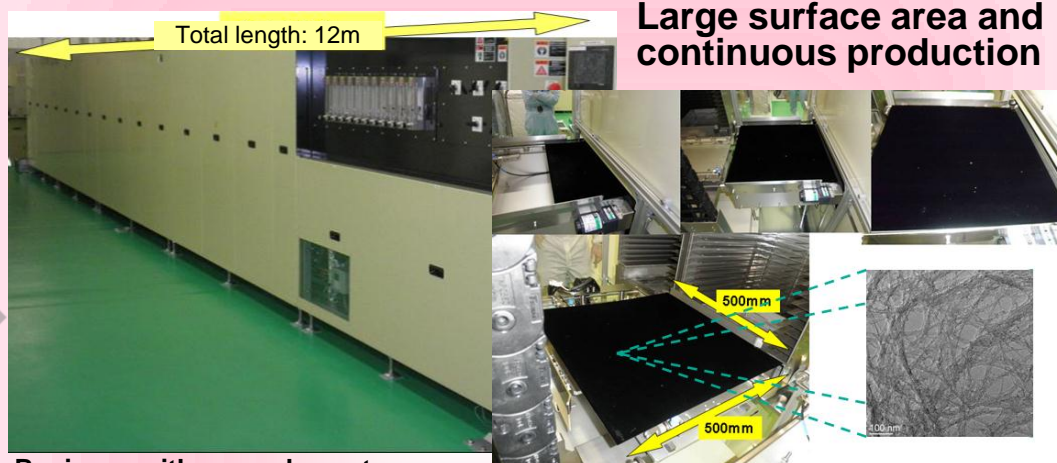
Large substrate surface area



Continuous synthesizing technology



### Super Growth CNT Pilot Plant



Business with a supplementary  
budget (FY2009)

In FY2011, started a collaborative project with the National  
Institute of Advanced Industrial Science and Technology (AIST).

Developing mass production technology and providing  
a small amount of samples

**In FY2012, ZEON began its own production.**

Providing samples in anticipation of mass production  
(Promoting a B to B business)

## Accelerating the development of new applications for Carbon Nano Tubes (CNTs)

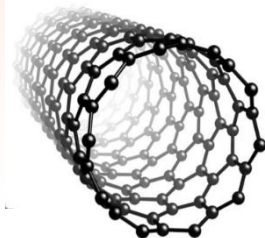
## Carbon Nano Tube Business: CNT Application Development

CNT Application  
Development

Technology Research  
Association for Single Wall  
Carbon Nano Tubes (TASC)  
Chairman:  
Naozumi Furukawa, President &  
CEO, ZEON Corporation

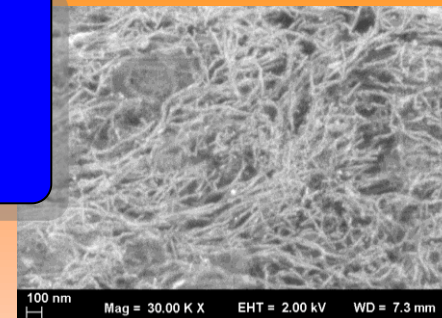
## Members of the CNT project

National Institute of Advanced Industrial  
Science and Technology, Toray Industries,  
Inc., NEC Corporation, Teijin Limited,  
Sumitomo Precision Products Co., Ltd.,  
[ZEON Corporation](#)



## Single wall CNT dispersing technology

Developed a technology for evenly  
dispersing CNT in rubber and resins.



SEM image of rubber composite

## High thermal conductive material

Rubber/CNT composite materials with high  
thermal conductivity of 90W/m•K

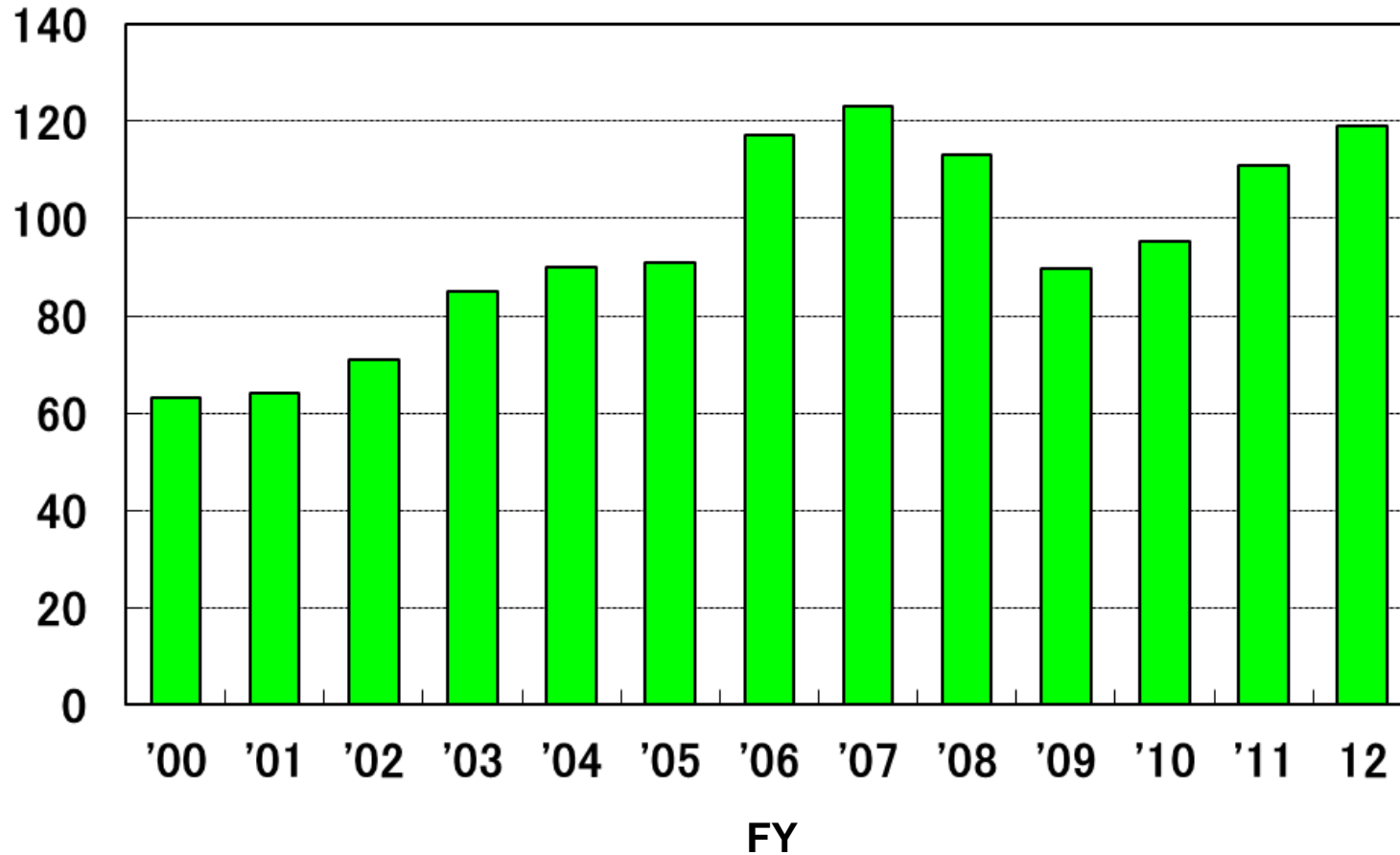


Source: Technology Research Association for  
Single Wall Carbon Nano Tubes

# Changes in R&D Expenses

(100 million yen)

## Changes in Consolidated R&D Expenses



# Strengthening Cost Competitiveness

## Production Innovation\*

Intelligent manufacturing system

Standardizing operations

Decreasing operational burden;  
common language

Reforming the business culture

Top-down approach

Strengthening ZEON's  
cost competitiveness

Bottom-up approach

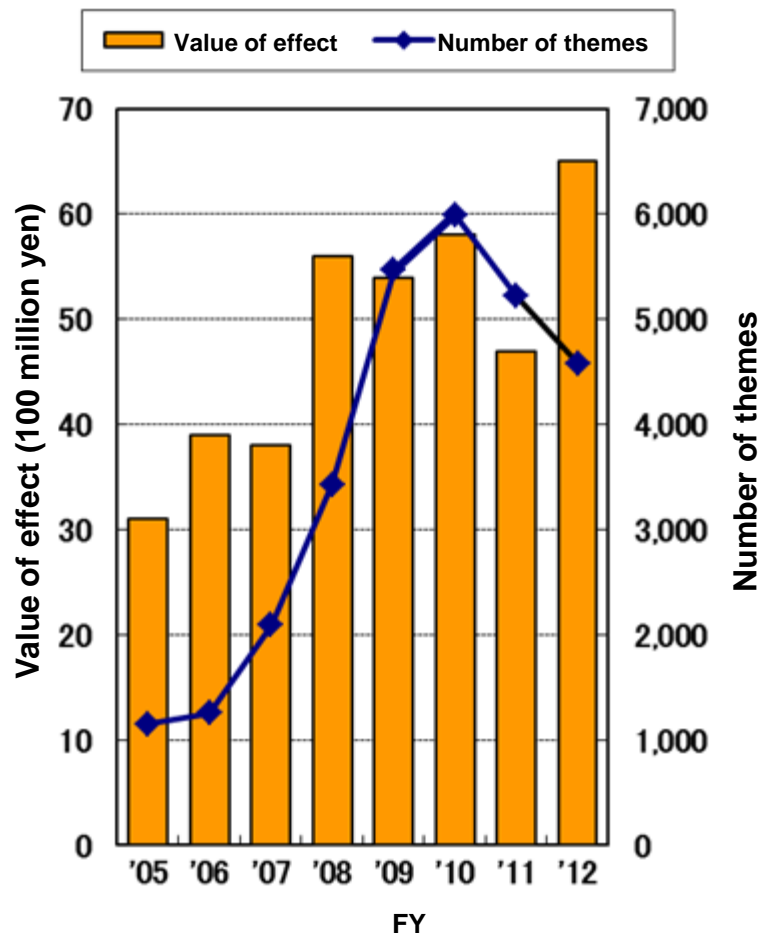
## ZΣ Activities

- ★ Cost reduction theme
- ★ Circle theme (small group activities)
- ★ Nurturing cost awareness and education

Made themes

## Continuing Efforts for Innovation and Improvement

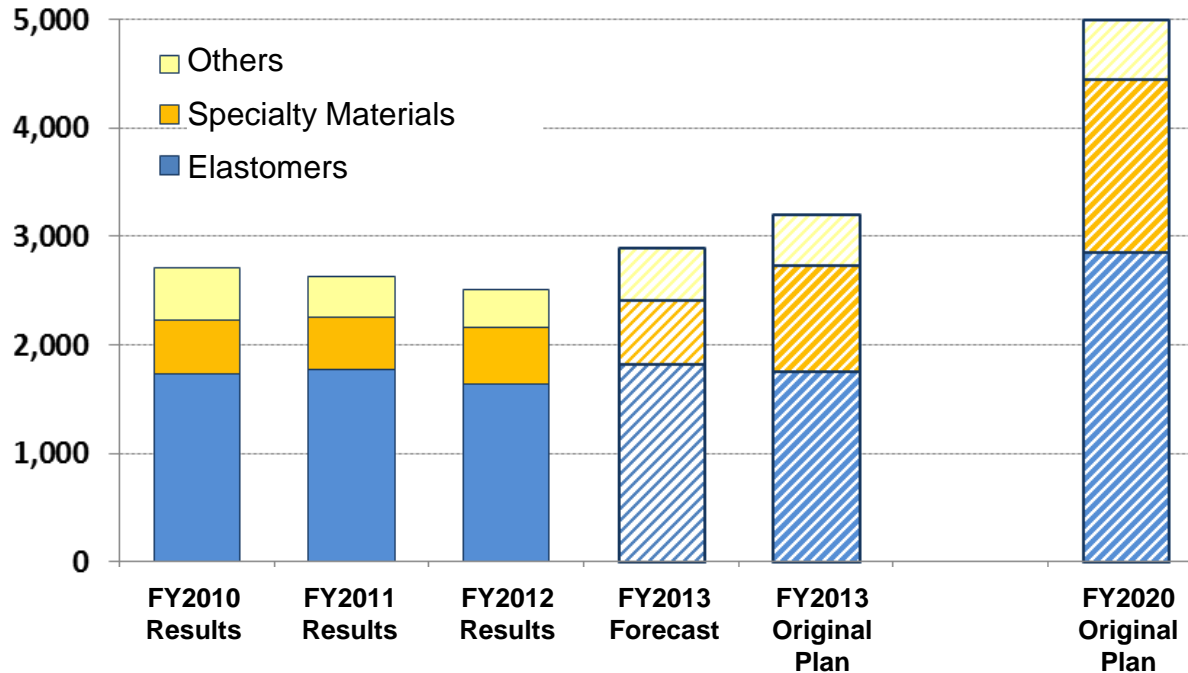
### ZΣ Activities – Transition in Monetary Effect and Number of Themes



\*Production Innovation: Daicel Production Innovation

## Aiming for 500 Billion Yen in Consolidated Net Sales in FY2020

Net sales  
(100 million yen)



### Consolidated Net Sales

(100 million yen)

	FY2010	FY2011	FY2012	FY2013 Forecast	FY2013 Initial Plan	FY2020 Initial Plan
Consolidated Net Sales	2,704	2,628	2,508	2,900	3,200	5,000

### Capital Investment

(100 million yen)

	FY2010	Grand total from FY2011 to FY2020
Capital Investment	103	3,200

**Speed**

**Dialogue**

**Social Contribution**

**Mutual trust and fellowship**

**ZEON's plans, forecasts, and other data appearing in this presentation were calculated based on information which was currently available and therefore includes risks and uncertainties. Actual results may differ depending on various factors.**

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