

FY2018 Financial Results Presentation Summary (held on May 13, 2019)

(1) Overview of FY2018 Financial Results (year-on-year changes)

		(Billions of yen)	
① Net sales:	413.1	{ +17.5}	Growth in sales volume (+3.3) Differences in sales prices (+14.2)
① Operating income:	34.2	{ +0.6}	
	Growth in sales volume	{ +3.4}	Electronics & Innovative Products, etc.
	Improvement in spread	{ +2.8}	Sales prices (+16.0) Rises in raw material and fuel prices (-13.2)
	Effect of foreign exchange	{ -0.3}	Sales prices (-1.8) Raw material prices, etc. (+1.5)
	Other cost elements	{ -4.4}	Periodic shutdown maintenance (SDM) of styrene monomer (SM) plant (-1.4) Damage incurred by Denka Performance Elastomer (DPE) in the United States due to cold wave (-1.0) Decrease in output from the Omi Plant's hydroelectric power generation facilities due to water depletion (-0.6) Other administrative and manufacturing costs (-1.4): Labor costs, etc.
	Forward-looking investments, etc.	{ -0.9}	Rise in R&D expenses

	Net increase due to factors listed above	{ +0.6}	

Net sales increased thanks to sales volume growth in Electronics & Innovative Products and upward revisions in petrochemical product prices in step with rises in raw material and fuel prices. **Operating income** increased due to sales volume growth and improved trade conditions together offsetting such negative factors as costs for the periodic SDM of SM plant, the impact of a cold wave that hit the U.S. State of Louisiana, a decline in output from the Omi Plant's hydroelectric power generation facilities due to water depletion and rising expenses for R&D and forward-looking investments.

(2) FY2019 Financial results forecasts (year-on-year changes)

(Billions of yen)

① Net sales:	415.0	{ +1.9}	Growth in sales volume (+12.9)
			Differences in sales prices (-11.0)
② Operating income:	38.0	{ +3.8}	
			Growth in sales volume { +6.7} Electronics & Innovative Products, etc.
			Improvement in spread { +5.7} Raw material prices, etc. (+15.6)
			Sales prices (-9.9)
			Effect of foreign exchange { -0.5} Sales prices (-1.1)
			Raw material prices, etc. (+0.6)
			Other cost elements { -5.8}
			Absence of periodic SDM of SM plant (+1.4)
			Absence of damage previously incurred by DPE in the United States due to cold wave (+1.0)
			Restoration of the Omi Plant's hydroelectric power generation output from a decrease due to water depletion (+0.6)
			Other administrative and manufacturing costs (-8.8): Labor costs, etc.
			Forward-looking investments, etc. { -2.4} Rise in R&D expenses

			Net increase due to factors listed above { +3.8}

Net sales are expected to grow due to an increase in sales of Electronics & Innovative Products despite falling raw material prices which will, in turn, force Denka to reduce styrene-based product prices.

Operating income is expected to increase thanks to the absence of the periodic SDM of SM plant and growing sales of car electronics-related products and other Electronics & Innovative Products offsetting rises in expenses for R&D and forward-looking investments as well as other fixed costs.

(3) Shareholder Returns

Policy on shareholder returns under the Denka Value-Up management plan: Remain committed to a targeted total shareholder return ratio of 50%; place stronger focus on cash dividends; and flexibly execute share repurchases

Dividends per share for fiscal 2018:

Interim: ¥60; year-end: ¥60; full-year: ¥120; (dividend payout ratio: 42%)

Forecasts for dividends per share for fiscal 2019:

Interim: ¥60; year-end: ¥65; full-year: ¥125; (dividend payout ratio: 40%)

(4) Topics

Pursuing the specialization and global expansion of the special cement additive business/ Making a full-scale entry into the biostimulant market (the Agri-Products Dept.)

Embracing an ESG-oriented perspective, the Infrastructure & Social Solutions Div. will strive to contribute to society through the provision of solutions with an eye to achieving three objectives: reducing environmental burden, promoting labor saving and developing people-friendly products.

1. Pursuing the specialization and global expansion of the special cement additive business

Initiatives related to specialization

- In 1968, Denka became the first in Japan to release an expansive additive under the product name DENKA CSA. Today, Denka boasts a longstanding track record spanning more than a half century in the special cement additive business and is seen as a top manufacturer in this field. In addition to its mainstay NATMIC shotcrete accelerator for tunnel construction, Denka's product lineup includes a variety of offerings, such as the aforementioned CSA, TASCON non-shrink grout additive, SUQCEM ultrahigh-strength fiber-reinforced concrete, ES quick-hardening accelerator for soil grouting work and SUPER CEMENT quick hardening cement.
- Under the Denka Value-Up management plan, our special cement additives are expected to play key roles in the priority field of high-value-added infrastructure and thus support our efforts to expand specialty businesses. We will thus strive to raise operating income from these products to ¥5.0 to ¥6.0 billion, which will account for 10% of consolidated operating income, estimated at ¥50 to ¥60 billion, in fiscal 2022.
- In Japan, we command more than 90% share in the market for shotcrete accelerator used in tunnel construction thanks to our technological strengths in this field. Having developed the clear shot method, which produces less dust and concrete splash, we are currently striving to promote this product as one of our innovative solutions for tunnel construction.
- Denka also meets customer needs associated with infrastructure maintenance and upgrade by providing precast concrete products, performing structure diagnosis and proposing repair methods and other solutions. Furthermore, Denka endeavors to establish a new 3D scanning technology for precisely analyzing and drawing the structure of important cultural properties and historical buildings. This technology is expected to help advance the preservation, maintenance and repair of these heritage sites.

Initiatives related to global expansion

- In Asian countries, there is a growing number of projects associated with the development, maintenance and repair of roads, airports and other transportation infrastructure. With this in mind, Denka is marketing products that boast higher durability backed by its strengths in quick-hardening technologies, striving to differentiate itself from competitors. At the same time, the Company is forming partnerships with local companies to establish effective footholds and expand operations.
- In Europe, Denka optimizes its regional business approach in light of stronger public awareness toward environmental load reduction. To this end, the Company proposes and provides such solutions as those aimed at reducing CO₂ emissions via the use of mixed cement, which employs tunnel construction-related expertise accumulated over the long course of Denka's domestic operations. In doing so, Denka is also acting in collaboration with local partners.

Future outlook

- We will contribute to infrastructure development in countries around the world by providing high-quality and high-value-added products, developing and commercializing unique technologies and acting in partnership with local companies. In these ways, we will meet the latest needs for solutions aimed at helping infrastructure developers reduce environmental burden, promote labor saving and achieve higher durability.

2. Making a full-scale entry into the biostimulant market

The current state of the biostimulant market

- Biostimulants are defined as “substances and microorganisms that positively affect the sound growth of plants and help enhance their quality in terms of such properties as crop yield.” Due to global warming and other climate change-related phenomena, there are growing instances where farmers experience serious crop damage. Against this backdrop, biostimulants are attracting attention in regions around the globe and seen as a potential solution to alleviate the impact of these phenomena. The global biostimulant market was valued at ¥240 billion in 2018 and is expected to be worth ¥360 billion in 2022.

Denka’s biostimulants

- Denka has been marketing two biostimulants, namely, AZUMIN humic acid fertilizer and a liquid fertilizer, the application of made via AZUMIN’s humic acid technologies. Unlike orthodox fertilizer production methods, which rely on weathered coal as a raw material, Denka’s method harnesses the reaction of brown coal and nitric acid. This results in humic acid with a distinctive molecular structure that is believed to significantly invigorate crop growth.

Growth strategies

- Currently, the majority (approximately 65%) of the global biostimulant market is accounted for by liquid fertilizers capable of bringing extremely quick results. Accordingly, Denka has positioned and is actively promoting its liquid humic acid fertilizers as a strategic product category to penetrate the global market. Denka is currently engaged in R&D aimed at maximizing the potential of its technological assets, with plans to take advantage of its unique humic acid-based products and thereby expand operations in the promising biostimulant market. Simultaneously, the Company is seeking to form a global alliance that would help it develop robust its marketing.
- Although we expect our fiscal 2019 sales of biostimulants to total nearly ¥2.0 billion, we aim to raise sales of these products to ¥10.0 billion by fiscal 2025.
- Through the biostimulant business, we will also contribute to the sustainable development of society by helping address such pressing global issues as the need for increased food production and countermeasures against climate change.

(5) Summary of Q&A Sessions

1.About overview of fiscal 2019 performance forecasts

1-1. Performance forecasts for the chloroprene rubber (CR) business

- CR demand remains firm in Europe and Southeast Asia. Despite a sign of weakening in demand in a portion of the Chinese and the U.S. markets, overall sales volume is not likely to significantly decline.
- Denka's CR serves as a highly functional elastomer. Even if the current butadiene price were to plunge, we would maintain the current CR price.
- Plans call for facility expansion at the Omi Plant to raise its annual production capacity by 5,000 tons in autumn 2019. Although the tight supply-demand balance has relaxed somewhat, any excess capacities will be utilized to optimize our two-location production system in a way that takes advantage of synergies with DPE and reduces overall production cost.

1-2. Initiatives being executed to improve the profitability of the Infrastructure & Social Solutions

- Sales efforts are now underway to offset the impact of reduced shipments of such offerings as cement, special cement additives and agricultural products due to natural disasters. We also engage in ongoing negotiations aimed at raising cement prices while striving to accept and process growing volumes of industrial waste via the use of a chlorine bypass facility that was introduced in 2018.

1-3. Life Innovation (outlook for influenza vaccines and diagnostic reagents and the status of new businesses)

- We have selected the four types of influenza virus strains that will be used in the production of vaccines to be marketed in the 2019 to 2020 season. Productivity is expected to remain on par with the previous season. We will establish forecast for production volume around July 2019.
- In diagnostic reagents, sales of inflammation markers targeting China are expected to grow continuously in fiscal 2019.
- Sales volume of the reagent for measuring sd-LDL-C increased steadily in China. In the United States, however, newly developed disease markers are seldom covered by the current public medical insurance system. Market growth will therefore take a longer period of time than expected in this country.
- Growth in segment operating income appears to be slower than segment sales growth. This is attributable to ongoing investments in R&D and overseas projects along with investments in such existing businesses as influenza vaccines and diagnostic reagents. We engage in forward-looking investments in a proactive manner, from a medium- to long-term perspective.

2. Specialization and global expansion of special cement additives

- 2-1. Factors behind delays in overseas expansion under the previous medium-term management plan
- Due to the insufficiency of pre-expansion feasibility studies, we failed to accurately identify local needs and practices.
 - However, we expect that performance of these products will be increasingly robust as we have been able to clarify target areas, such as eco-friendly tunnel construction methods, where we enjoy advantages thanks to our product features.

3.A full-scale entry into the biostimulant market

3-1. Status of Denka's biostimulant products

- Our AZUMIN is an excellent magnesium humate fertilizer being sold for 50 years. Building on the success of this product, we have developed and are marketing a liquid humic acid fertilizer.
- Boasting a strong track record, it is used to cultivate Yamada Nishiki, a top-quality rice grain variety, as well as a range of other crops and fruits.

3-2. Our target (raise biostimulant sales to ¥10.0 billion by fiscal 2025)

- Biostimulants have yet to be defined clearly. As a chemical manufacturer, we will conduct a robust scientific analysis of their mechanism in the course of product development so that farmers can rest assured about using our biostimulants.
- We anticipate significant sales growth around 2025. However, we will work as hard as possible to achieve linear growth.
- Europe and the United States are at the forefront of the emergence of biostimulant markets. As we have maintained local subsidiaries in these two regions, we are well-positioned to draw on longtime relationships with customers and our regional sales networks in marketing.
- On the earnings front, we aim to nurture this specialty product category into a key contributor to our goal of raising the consolidated operating income ratio to 15% by the end of fiscal 2022.