Working On Wonders

Surpassing conventional common sense and going beyond the field of conventional chemistry, our quest to create new “wonders” will be continued to fulfill the dreams of customers and society.

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Organizations Covered
Hitachi Chemical Co., Ltd., its 96 consolidated subsidiaries and 2 equity-method associates and joint ventures (a total of 99 companies). (As of the end of March 2018)

When the Hitachi Chemical Group as a whole is indicated, the terms “Hitachi Chemical,” “the Hitachi Chemical Group,” “the Group” and “consolidated” are used. The terms “the Company” and “non-consolidated” refer to Hitachi Chemical Co., Ltd.

Reporting Period
Fiscal year 2017 (April 1, 2017 to March 31, 2018)

This report also contains information regarding events of particular importance that have occurred prior to or after fiscal year 2017. Please note that “fiscal year” and “FY” refer to accounting years from April 1 to March 31 of the following year.

Guidelines Consulted
International Integrated Reporting Council (IIRC) Integrated Reporting Framework
GRI Sustainability Reporting Standards

Forward-looking Statements
In addition to information of material fact regarding the past and present activities of Hitachi Chemical, this report contains forward-looking statements concerning future plans and forecasts. Forward-looking statements are assumptions and judgments based on information available at the time of publication. Therefore, future results of business activities and events may differ from forward-looking statements due to changes in a variety of factors.

Third-party Assurance of Environmental and Social data
In order to enhance the credibility of the environmental and social data we disclose on our CSR website, we have engaged KPMG AZSA Sustainability Co., Ltd. to provide assurance as a third party with respect to some environmental and social data (energy consumption, greenhouse gas emissions, water consumption, VOC emissions, accident frequency rate, accident severity rate, and number and proportion of female managerial positions).

For GRI content index, refer to the Hitachi Chemical website ► About Hitachi Chemical ► CSR ► GRI Content Index.

For a third party assurance report, refer to the Hitachi Chemical website ► About Hitachi Chemical ► CSR ► Third Party Assurance Report.
The “Hitachi Chemical Group Identity,” consisting of our “Mission,” “Founding Spirit,” and the “Hitachi Chemical Group Vision,” is the globally shared structure of our philosophy and values, established to strengthen our Group’s teamwork beyond regions and business fields.

**Mission**
Contribute to society through the development of superior technologies and products.

**Founding Spirit**
“Pioneering Spirit”, “Sincerity”, “Harmony”

**Hitachi Chemical Group Vision**
With a pioneering spirit to explore uncharted areas, we develop innovative solutions beyond the boundaries of chemistry, delivering “wonders” that exceed the expectations of customers and society.

The “Hitachi Chemical Group Identity,” consisting of our “Mission,” “Founding Spirit,” and the “Hitachi Chemical Group Vision,” is the globally shared structure of our philosophy and values, established to strengthen our Group’s teamwork beyond regions and business fields.

**Hitachi Chemical’s Information Disclosure Tools**

**Financial Information**
- Consolidated Financial Summary
- Fact Sheet
- Notice of the Annual General Shareholders’ Meeting/Business Report for Domestic Shareholders (Japanese only)/Presentation Materials
- Financial Section

**ESG Information**
- Corporate Governance Report (Japanese only)
- Technical Report
- Company Brochure
- CSR Website
- IR Website

**Website**
http://www.hitachi-chem.co.jp/

*For detailed financial information, please refer to the Financial Section and IR Website, and for detailed ESG information, refer to the CSR website, etc.*

**Editorial Policy**
The Hitachi Chemical Group’s Annual Report is published each year to help various stakeholders, including shareholders and investors, understand our activities aimed at fulfilling the Hitachi Chemical Group Vision. It is an integrated report covering our management strategy, financial information and information on environmental, social and governance (ESG) activities.

This Annual Report provides an overview of the Group’s medium-term policy/strategy and value creation process, in addition to initiatives in its key businesses and ESG (Environmental, Social and Governance) activities. A wide range of detailed, timely information on Hitachi Chemical is disclosed on our website. Please also make use of our other information disclosure tools.

**Extensive and detailed ESG information**
- Environmental report
- Social report
- Governance and CSR management
- ESG data
History of Explorations Taken on by Capitalizing on Core Competencies

Hitachi Chemical’s core competencies have been established based on its in-depth know-how that straddles organic and inorganic chemistry amassed through its four original products, namely, insulating varnishes, phenol resin laminates, porcelain insulators and carbon brushes. The combination and integration of these technologies have led to the birth of numerous products.

Material technologies
- Technologies for creating required functions

Process technologies
- Technologies for manufacturing products efficiently without wastefulness

Evaluation technologies
- Technologies supporting for leading to next steps by precise data analysis

Original products
- Insulating varnishes
- Porcelain insulators
- Phenol resin laminates
- Carbon brushes

Core competencies (Technology platform)

1912
- Started trial manufacture of electrical insulating varnishes.

1912
- Listed shares on First Section of Tokyo and Osaka Stock Exchanges.

1925
- Spun off from Hitachi, Ltd.

1928
- Started selling photosensitive dry film of alkali-based solvents.

1931
- Started trial manufacture of porcelain insulators.

1933
- Started trial manufacture of carbon brushes.

1955
- Started manufacturing copper-clad laminates for multilayer PWBs.

1962
- Established our first overseas resident office in Germany.

1971
- Started manufacturing anisotropic conductive films.

1978
- 1971
- 1984
- 1985

1980
- Plaza Accord

Revenue
- (hundred million yen)
- 8,000
- 6,000
- 4,000
- 2,000
- 0

Annual Report 2018
Resolving social issues through Hitachi Chemical products

1. Hitachi Chemical started research to become the first domestic producer of insulating varnish for motors, and succeeded in developing a varnish containing natural resin in 1914.

2. This was developed for the “printed wiring method,” replacing manual wiring of copper wires by hand soldering. It enabled mass production of electronic circuits and contributed to the spread of TV sets.

3. Hitachi Chemical succeeded in the high-volume production of plastic bathtubs for the first time in Japan, where most bathtubs were made of wood at the time. This contributed to the spread of plastic bathtubs in households.

4. Hitachi Chemical developed and produced solvent-free products ahead of other manufacturers, foreseeing that environmental friendliness would become a requirement in the manufacturing of electronic circuits in the coming era.

5. Hitachi Chemical realized the batch connection of wires at the micrometer level in LCDs. This enabled high-volume production of LCDs with high picture quality and expanded their applications.

6. Hitachi Chemical solved the problem of cracking of sealing material caused by heat in the reflow soldering process for semiconductors. This enhanced the reliability of electronic equipment.

7. Hitachi Chemical developed high-capacity artificial graphite that reduces the frequency of recharging. This accelerated the replacement of natural graphite with artificial graphite and contributed to the improvement of mobile terminals.

8. Hitachi Chemical developed unique cerium oxide particles that self-collapse while polishing wafer surfaces, which enabled higher density in semiconductors and also greatly reduced waste.

9. Hitachi Chemical succeeded in manufacturing molded plastic rear door modules for the first time in Japan, where such modules had been conventionally made of metal. This not only reduced weight but also gave much more freedom in design.

10. Hitachi Chemical made it possible to perform a test for many allergens simultaneously from a single blood sample. This has helped diagnose allergy diseases and contributed to the quality of life (QOL) of patients.

11. Hitachi Chemical developed a lead-acid battery with a long life that can endure irregular and frequent charging and discharging cycles. This contributed to the successful operation of Japan’s first wind power station with output-power stabilization control.

For Hitachi Chemical Group’s history, refer to Hitachi Chemical’s website "About Hitachi Chemical" Corporate Profile "Brief History."
President and Chief Executive Officer
Hisashi Maruyama
Our high value-added technologies and products will provide solutions to the social issues and our customers as we head toward “where we want to be in ten years’ time.”

Speeding up in the final fiscal year of the 2018 Medium-term Management Plan

When formulating the 2018 Medium-term Management Plan (FY2016-2018), we repeatedly discussed where the Hitachi Chemical Group should be in ten years. We used the “where we want to be in ten years’ time” as a foundation for breaking down the long-term plan into three-year periods for backcasting to understand what we should do at the present moment. Through this process we reached an answer: we want to become a company that is an active innovator going beyond the boundaries of chemistry, and based on advanced Functional Materials, operates globally in an extensive variety of businesses which encompass among others devices, systems, and services. We set a goal of significantly increasing our sales revenue and achieving an operating margin of 14% or more by transcending the boundaries of chemistry and expanding our potential beyond BtoB to BtoC. If we achieved this, rivaling global chemical companies would be no longer be a dream but a reality.

Hitachi Chemical has been growing by standing alongside its customers, assessing their needs and providing them with solutions, while leveraging its three technology platforms of material technologies, evaluation technologies and process technologies as core competencies. However, with the awareness that it will be difficult to arrive at “where we want to be in 10 years’ time” solely with these strategies amid the drastically changing market environment, we are working on a new business approach for increasing our business conceptualization abilities, such as an ability to discover the true needs of customers and design businesses.

In the 2018 Medium-term Management Plan, which was formulated by

### 2018 Medium-term Management Plan Targets

<table>
<thead>
<tr>
<th></th>
<th>FY2017 result</th>
<th>FY2018 forecast</th>
<th>FY2018 target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>669.2 billion yen</td>
<td>710 billion yen</td>
<td>CAGR 7-8%</td>
</tr>
<tr>
<td></td>
<td>Up 20.8% year on year</td>
<td></td>
<td>Target from FY2015 to FY2018</td>
</tr>
<tr>
<td><strong>Operating Margin</strong></td>
<td>6.9%</td>
<td>8.3%</td>
<td>11%</td>
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</table>
backcasting from “where we want to be in 10 years’ time” we are working to promote open innovation through activities such as the acceleration of growth through the acquisition of technologies and business foundations from the outside, the acceleration of commercialization through collaborative creation with outside resources, and the expansion of global, top market share business through our Niche and Cluster Strategies; that is, by transforming businesses into niche businesses with high profitability and a strong growth rate, and into business cluster where strategies for global success can be shared by the groupings of several product families through the exercising our comprehensive strengths.

Expanding our growing operations in this one-year period

In fiscal 2017, our M&A efforts in business areas such as Automotive Products, Energy Storage Devices and Systems, and Life Sciences bore fruit and our operations expanded. As a result, our sales revenue sharply rose by more than 100 billion yen versus the previous year and reached a record-high of 669.2 billion yen (20.8% increase from the previous year). We saw consistent growth in the last year and achieved greater profit even without the non-continuous part resultant from M&A.

However, some issues remain and need to be addressed in fiscal 2018. In the last two years, we have constructed a system for increasing sales revenue but our operating margin in fiscal 2017 was 6.9%, which did not increase as planned. This is attributable to the fact that we were not able to properly pass the rise in raw material prices onto products prices, and due to reasons such as a sharp decrease in the demand for smartphones and the delay in the creation of synergies with new consolidated Group subsidiaries unexpectedly slowed the increase in our profits around the end of the term. Given that revenue growth means that a base for increasing profits has already been set in place, it is an issue for fiscal 2018 to increase profit corresponding to the increase in revenue. For our new consolidated Group subsidiaries, we will facilitate PMI, leading to the early creation of synergistic effects. Also, we will aggressively invest in areas of growth in our existing businesses. In this way, we will strive to further solidify our growth. We will also strive to establish a profit structure that is less susceptible to influences from fluctuations in raw material prices.

With these initiatives, we are likely to achieve CAGR of 7-8% of revenue, the target for the final year of the 2018 Medium-term Management Plan. While achieving the initial target of 11% for operating margin is difficult, recovery to 8.3% is expected.

Ensure consistent improvement of our profitability
Facilitate continued growth in four businesses as we head toward where we want to be in ten years’ time

Looking back on the businesses in fiscal 2017, our advanced Functional Materials business enjoyed strong market conditions for semiconductor materials and the success of our Cluster strategy. Among our Niche products, CMP slurry has gained an established reputation and become a de facto standard item, which resulted in more orders and increased our profits. In the domain of semiconductor packages, we have already seen some cases where our products were designated as de facto items for major customers. Moreover, sales of our anode material for lithium ion batteries, which boast one of the world’s largest shares in the market for vehicle-mounted applications, also increased significantly.

In Automotive Products, an increase in revenue of high value-added products led to increased profits. These products include, among others, exterior molding for automobiles and environmentally conscious disc brake pads. The former involves the use of our Group’s unique foaming and molding resin technology that has achieved weight-saving and strength compatibility while the latter complies with the regulation of copper content, which will be introduced in the U.S. in 2021. In the future, we will proceed with environmental actions more strongly, and, among other activities, the Group will unite on project for automatic operation and increasing the reliance of automobiles on electronics. Last year, we acquired ISOLITE, a company in Germany that develops, manufactures and distributes thermal insulation parts for automobiles, aircraft and other industrial applications. With ISOLITE as a new business base, we will strengthen the expansion of our sales to European automobile manufacturers. In the Energy Storage Devices and Systems business, we were affected by a rise in the price of lead, a raw material, in the previous fiscal year. However, we were able to focus on the construction of a business foundation, which is less affected by lead prices. Now a framework for developing the battery business globally, which was previously operated mainly in Japan, has been set in place due to FET joining Hitachi Chemical Group in fiscal 2016 and TSB who joined the Group in fiscal 2017. In fiscal 2018, we will strengthen our product lineup, which makes maximum use of the TSB’s 3K brand and the Hitachi Chemical brand. We are confident that our operation can expand in this business area while strengthening our earnings power.

For the better realization of a sustainable environment

- Accelerating the development and commercialization of products based on the demands for environmental soundness

We will stimulate the development and commercialization of Automotive Products by adapting them to meet the growing market needs for factors such as fuel efficiency, environmental responsiveness. Hitachi Chemical was the first in the world to develop resin projection foam molding technology, which can be applied to automotive exterior parts. The technology was introduced to Serena, a new minivan model manufactured and launched by Nissan Motor Corporation in August 2016, and to Subaru XV, a new SUV model launched in May 2017. Hitachi Chemical extensively produces functional components such as resin inverter housings. With newly added technologies, we will pursue the global market expansion for our Automotive Products. Our copper-free friction materials have a copper content below 0.5%, and these were introduced in the Ford Motor Company’s Fusion in July 2017. We will become structurally capable of producing and supplying friction materials, such as copper-free friction materials, in Japan, China, Thailand and Mexico and pursue the continued expansion of their share, which will increase in demand.

- Resin inverter housing
  A resin inverter housing, a resin case, has built-in electric power elements and circuits used for inverters for eco-friendly HEVs (hybrid electric vehicles) and EVs (electric vehicles), and is also equipped with a connection function.

- Copper-free friction materials
  The U.S. announced regulations to control the copper content in friction materials. Similar regulations may also be imposed in Europe. The copper-free friction materials developed by Hitachi Chemical are equivalent to conventional friction materials in terms of performance and also allow for noise reduction. They may be used in electric vehicles with little noise during operation.
Lastly, our Life Sciences business is consistently showing successful results based on the policy of investing in the future and expanding the business. We have advanced into the contract manufacturing business for regenerative medicine by acquiring PCT (now HCATS) in the United States in May 2017. Currently, large orders for commercial production in 2019 and 2020 are coming from companies such as SanBio Co., Ltd. and Daiichi Sankyo Co., Ltd. With fewer competitors, the life science business is very promising and we expect significant growth in this area. Additionally, in the field of diagnostic reagent business, we made Kyowa Medex Co., Ltd. a subsidiary in January 2018 due to the company’s strengths in its lineup of many different diagnostic reagents. Significant synergistic effects are expected, including the enhancement of overseas business development that takes advantage of the sales networks of the Hitachi Chemical Group in the United States, Europe and Southeast Asia, and the promotion of sales of Hitachi Chemical’s diagnostic reagents through leveraging the sales network of Kyowa Medex in Japan.

For detailed information on HCATS and Kyowa Medex Co., Ltd., refer to P.35.

For the following details, refer to the Hitachi Chemical website >> About Hitachi Chemical >> News Releases.

Feb.05.2018: Hitachi Chemical Licenses Patents and Know-How for Technologies Relating to Stem Cell Culture Media/Stem Cell Culture Methods from Accella in Israel
Mar.19.2018: Hitachi Chemical Signed Agreement for Clinical Manufacturing of Regenerative Medicine with Daiichi Sankyo

Accella Ltd.
Accella Ltd. was founded on the results of 20 years of advanced research and the development of stem cells at Technion - Israel Institute of Technology. The company developed a method of culturing media and stem cells that allows for the high-speed culturing of a large quantity of stem cells. The technology is highly regarded and is patented in many countries.

Culture medium
This is used for the cultivation of cells, among other things. It is a liquid or solid material that contains the nutrients necessary for cultivation.

SanBio Group
SanBio Group engages in the research, development, production and sales of regenerative cell medicine. Bilateral efforts are under way in the U.S. and Japan for the development and launch of SB623, which is a product with applications such as regenerative medicine, and is expected to stimulate the regeneration of neural function in CNS diseases.

Aiming to improve patients’ quality of life (QOL)
- Contributing to cutting-edge medical services

Industries relating to regenerative medicine are expected to grow into a 15 trillion yen market by 2050. Hitachi Chemical utilizes its material technology capabilities and aims to establish highly safe products with excellent quality and expand its related businesses. In February 2018, Hitachi Chemical concluded a technical license agreement with Accella Ltd. on the methods for making a culture medium for stem cells and for culturing stem cells, thus acquiring a license for the latest culture medium. In this way, Hitachi Chemical’s technology capabilities in the contract manufacturing business will be strengthened, and the higher quality and lower cost of cell manufacturing will be promoted. In March 2018, we concluded an agreement with SanBio Co. Ltd. on the partnership for the manufacturing of SB623, a product for applications such as regenerative medicine, independently developed by SanBio Group. We are aiming for its initial launch in Japan by using the conditional and fixed-term early approval system for regenerative medicine and other equivalent products in Japan. Furthermore, we concluded an agreement on contract production in Japan with Daiichi Sankyo Co., Ltd. in March 2018.
Strengthen our financial strategies by foreseeing mid- and long-term growth

Expect growth and a higher profit rate by introducing an aggressive financial strategy

For fiscal 2018, we are planning to invest 60 billion yen in equipment. Considering that our annual investment amount in the 2000s was around 30 billion yen, our willingness to invest in the recent years is understandable. Hitachi Chemical’s capital cost ranges between 6% and 7%. As interest rates remain at a historically low level, it is necessary to strategically raise funds to ensure the growth of our operations. Based on this idea, we issued a 20 billion yen bond in fiscal 2017. As a result, the ratio of interests of shareholders of the parent company reached 57%. In fiscal 2018, capacity augmentation and efficiency will be our priorities for equipment investment, and we are planning to construct a new plant to increase the production of the products that make up our strengths.

From the perspective of efficiency of invested capital, the business management of Hitachi Chemical also places importance on ROIC. To efficiently connect capital to profits, the entire Hitachi Chemical Group will manage this index and will increasingly keep an eye on the asset turnover rate and the need for the disposal of assets.

Our dividend-related policy will be based on achieving a stable dividend with a dividend payout ratio of around 30%. Recently, the position of major institutional investors has been changing and we are receiving more requests for investing in mid- and long-term growth strategies instead of buying back our stocks. As President and CEO, I am determined to create an expansive scenario that will help to meet expectations. Additionally, I am willing to talk with investors about the direction of our growth strategies.

### 2018 Medium-term Management Plan Targets

<table>
<thead>
<tr>
<th></th>
<th>ROIC</th>
<th>ROE</th>
<th>CO₂ Emissions*¹</th>
<th>Proportion of Female Managerial Positions*²</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2017 result</td>
<td>7.7%</td>
<td>9.4%</td>
<td>96%</td>
<td>7.9%</td>
</tr>
<tr>
<td>FY2018 target</td>
<td>15%</td>
<td>12%</td>
<td>96%</td>
<td>12.0%</td>
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</table>

*¹: CO₂ emissions: Per unit of sales compared to the FY2014 results (major production sites including Group companies (Japan only))
*²: Proportion of female managerial positions: Non-consolidated, under age of 45
The entire Group concerts efforts to facilitate ESG management

We will contribute to the environment and society with our operations

It is meaningless if our operations and ESG management make progress in different dimensions. The operations of Hitachi Chemical must be environmentally friendly and contribute to society. Based on this idea, Hitachi Chemical has developed sustainable engineering. If each of our staff members becomes aware, proud and happy about contributing to society, this will ultimately transform how we work.

Hitachi Chemical has introduced AI and robots to its indirect operations and production practices thus streamlining production while pushing forward with efforts to reduce the total workload by optimizing business processes. In the days ahead, we will expand overseas in an effort to enhance our productivity on a global scale. In Japan, initiatives such as telework have already been extensively introduced. However, efforts to make such initiatives more readily available still leave room for improvement. Therefore, we will rationally reduce the total workload, clarify the roles shared among staff members, and introduce an assignment method that will help to increase work satisfaction. To this end, we will continue to develop a workplace environment where communication between superiors and subordinates can be stimulated through our Global Coaching Program and its members, and based on our motto of “Develop a culture of dialogue and taking on challenges.” The 2018 Medium-term Management Plan includes a goal for raising the proportion of female managerial positions under the age of 45 to 12%. To achieve the target, we will showcase a guideline for specific educational and other methods to staff members with the aptitude for a managerial-level position, and we will develop a continuous follow-up system for these individuals.

Utilizing Carbon Management Strategy in our business management

As part of the actions to reduce CO₂ emissions, we use Carbon Management Strategy. This method involves converting CO₂ emissions into an amount of money, deducting it from profits and using it for internal management. This helps to raise awareness about CO₂ reduction in our businesses. In fiscal 2017, we used this decision-making method on issues such as energy-saving investments, and successfully achieved our target for CO₂ emissions set forth in the 2018 Medium-term Management Plan. In the days ahead, we will further strengthen...
our efforts to reduce CO₂ emissions throughout our supply chain and making maximum use of our sustainable engineering to achieve the long-term environmental targets and SDGs of the Hitachi Group as a whole. Conventionally this method of Carbon Management Strategy was limited to Japan but in fiscal 2017 it was also applied to China. In fiscal 2018, the application of Carbon Management Strategy will be extended to our Group companies in other countries.

**Lively exchange of opinions between Directors and Executive Officers meant to facilitate healthy management**

The governance of Hitachi Chemical is based on the separation of supervision and execution functions. The Board of Directors plays a supervisory function. In an effort characteristic of Hitachi Chemical, the Outside Directors, who are on our Audit Committee, sequentially visit our Group companies, including those overseas, and provide feedback to our Board of Directors.

In my view, the Board of Directors of Hitachi Chemical is more vigorous than in other companies with our Board of Directors exchanging many opinions. In our monthly Board of Directors Meeting, Executive Officers report on the status of operations of respective divisions and Directors give advice. In addition, Directors and Executive Officers have off-site meetings on topics such as basic management policies and the Medium-term Management Plan for the next business period. The Directors and Executive Officers exchange opinions with an aim to ensure healthy management.

Also, supervision of the successor training plan is one of the roles of the Board of Directors. Based on the advice from Nomination Committee, the Board discusses the requirements for presidential candidates, plans for the training of candidates and other topics in order for Directors to be deeply involved in the training of our future leaders. We currently have candidates for Executive Officers and nominees for presidential candidates. Through discussions with outside managers and training sessions, these candidates are learning more than just management theory; they are acquiring greater depth and versatility in their personalities and developing the culture and aptitude to be managers.

**Strengthen our group governance**

As we recently announced, it has been ascertained that inappropriate data entries were made in inspection reports submitted to customers regarding certain products among lead-acid batteries for industrial use manufactured at our Nabari Works (Nabari City, Mie Prefecture).

We deeply apologize for the significant inconvenience caused to our customers and all other persons concerned.

The Hitachi Chemical Group has established a special investigative committee that includes outside experts and is thoroughly investigating the causes. After receiving an investigative report from the committee, we will announce the details again after figuring out the specific issues and taking measures to prevent a recurrence. We will do our utmost to restore customers’ trust by conducting a fundamental review of the quality control structure and focusing on the further strengthening of compliance.

Regarding our past cartel behavior in the capacitors business of the Group, we have been cooperating fully in the investigation since 2014, and financial penalties and compensation for damages of around 11.6 billion yen have been
imposed on us. While this was a case that occurred before 2010, we have established measures to prevent a recurrence as a concerted effort of the Group while keeping firmly in mind that the misconduct of only a few people could result in an enormous loss.

After M&A and other measures, many like-minded companies joined the Hitachi Chemical Group and the consolidated number of employees in Hitachi Chemical now exceeded 20,000. Due to this, occupational safety and compliance are the cornerstones of management. Through meetings and messages, I will continue to communicate the importance of labor, safety and compliance. The rules at Hitachi Chemical will be spread, including to new Group companies, in an effort to strengthen governance.

Develop businesses that will help to address future social issues

Our 10-Year Strategy aims to facilitate businesses that help to address social issues and enhance our corporate value on a long-term basis while keeping SDGs in mind. To spread awareness, the Group Environment and CSR Committee holds quarterly meetings to share our track record of sustainable engineering activities that contributes to the resolution of environmental issues with products and services. During the meetings, I feel that the idea of materiality for long-term growth is gradually spreading within the Group. Through materiality analysis, we will formally analyze the relationship between Hitachi Chemical’s businesses and social issues and reflect Hitachi Chemical’s attitude toward the social issues in our 2021 Medium-term Management Plan. At the same time, I want all of our employees to have a sense of contributing to society.

For detailed information on materiality analysis, refer to P.19-20.

For 2021 Medium-term Management Plan, refer to P.28.

Contribution to SDGs through businesses
(Regenerative medicine business)

Outline of the business
Regenerative medicine involves transplanting cells into the body, for example, by culturing cells outside the body to facilitate the recovery of organs and immune system damaged by an injury or illness. Hitachi Chemical has two facilities in the U.S. and one in Japan for the culturing and processing of cells. Hitachi Chemical also globally develops methods for creating products such as cells for regenerative medicine and undertakes their contract production.

Contribution to achievement of SDGs (business opportunities)

<table>
<thead>
<tr>
<th>Social issues</th>
<th>Solutions</th>
<th>Expected effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of patients’ quality of life (QOL) over lifestyle-related diseases, cancer and other intractable diseases associated with the aging society</td>
<td>Development of minimally-invasive and radical approaches to regenerative medicine that would serve as an alternative to the conventional practice of surgical treatment, chemotherapy and others</td>
<td>• Improvement of quality of life (QOL) through the reduction of physical and financial burdens on patients • Reduction of expenses for healthcare and nursing care through radical treatments</td>
</tr>
</tbody>
</table>

For sustainable engineering, refer to the Hitachi Chemical website. For detailed information on materiality analysis, refer to P.19-20.

For 2021 Medium-term Management Plan, refer to P.28.
Creating a corporate culture for exploring new business directions

Under the slogan of “Working On Wonders,” Hitachi Chemical continues to take on challenges every day to provide new value to our stakeholders. We hold the WOW Global Awards every year to create a climate of taking on challenge for our future. This is part of the WOW-BB activities that we began conducting on the 50th anniversary of Hitachi Chemical’s founding. This year, more than 900 entries were registered from the Group companies around the world, and a range of challenges were taken on. The challenge entry qualifications are as follows: A challenge is an effort that falls under any of Hitachi Chemical’s five challenges, and can also walk the talk. We will continue to materialize wonders that exceed the expectations of customers and society by further deepening our culture of dialogue and taking on challenges.

Outline of WOW Global Awards 2017

In fiscal 2017, 945 teams around the world, comprising 64% of all employees, participated in the WOW Global Awards, marking its fourth year. In the final selection in May 2018, 10 teams gave a presentation, and four projects were selected as Gold Award winners after careful consideration by the Executive Officers. At the venue, there were approximately 300 employees participating from eight regions including China, Malaysia, Singapore, Indonesia and Thailand and other countries. Scenes from the venue were broadcast live to 22 locations of the Group, and many colleagues watched the broadcast.

Remain as a company that is needed for the trends of the times

In the last 30 years, our revenue has more than tripled and our profit rate has also increased dramatically. This is proof of our growth in which our operations have focused on the growing markets of the time and our strength in material technology has been maximized. Today, Hitachi Chemical’s products are needed for the advancement of automatic automobile driving and EV-related technologies as well as for the sophistication of IT communication technologies. This represents a tail wind for us.

We will continue to accurately identify market trends and remain committed to the creation of new products and businesses using our core technologies. To this end, I would like to have meaningful discussions for growth with our stakeholders. We greatly appreciate your understanding of our direction and policies as well as your advices and opinions regarding our future.
Trends in Management Indicators

Revenue increased significantly due to a rise in demand for semiconductor materials, copper-clad laminates and lithium-ion battery (LIB) carbon anode materials and an increase in new consolidated subsidiaries as a result of M&A. Profit declined due to the posting of expenses such as financial penalties for past cartel acts in the capacitor business of the Group, in addition to the insufficient exertion of synergy effects with new consolidated subsidiaries as a result of M&A and rising raw material prices, despite factors for higher profit such as an increase in the amount of materials and continuous cost reductions.

ROIC declined due to a delay in the response to rising raw material prices and the imposition of financial penalties for cartel acts, despite the expansion of business assets due to M&A. ROE also decreased due to the delay in the response to rising raw material prices and the insufficient exercise of synergy effects with new consolidated subsidiaries. In fiscal year 2018, we will take measures to improve the rate of cost shifts to prices and reduce gaps in the collection period in response to rising raw material prices and increase productivity by reviewing manufacturing in order to exert synergy effects with new consolidated subsidiaries.

<table>
<thead>
<tr>
<th>Financial Data</th>
<th>FY2012 (JGAAP)</th>
<th>FY2013 (IFRS*)</th>
<th>FY2014 (IFRS)</th>
<th>FY2015 (IFRS)</th>
<th>FY2016 (IFRS)</th>
<th>FY2017 (IFRS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (Millions of yen)</td>
<td>464,655</td>
<td>488,725</td>
<td>526,687</td>
<td>546,468</td>
<td>554,144</td>
<td>666,234</td>
</tr>
<tr>
<td>Functional Materials Segment (Millions of yen)*2</td>
<td>245,157</td>
<td>261,179</td>
<td>277,127</td>
<td>269,769</td>
<td>272,994</td>
<td>297,051</td>
</tr>
<tr>
<td>Advanced Components and Systems Segment (Millions of yen)*2</td>
<td>219,498</td>
<td>227,546</td>
<td>249,560</td>
<td>276,699</td>
<td>281,150</td>
<td>372,183</td>
</tr>
<tr>
<td>Overseas share of revenue (%)</td>
<td>46.7</td>
<td>51.1</td>
<td>53.6</td>
<td>58.3</td>
<td>58.0</td>
<td>62.9</td>
</tr>
<tr>
<td>Operating income (Millions of yen)</td>
<td>23,559</td>
<td>36,569</td>
<td>29,226</td>
<td>53,036</td>
<td>53,152</td>
<td>46,219</td>
</tr>
<tr>
<td>Operating margin (%)</td>
<td>5.1</td>
<td>7.5</td>
<td>5.5</td>
<td>9.7</td>
<td>9.6</td>
<td>6.9</td>
</tr>
<tr>
<td>Functional Materials Segment (%)*2</td>
<td>8.7</td>
<td>9.8</td>
<td>8.5</td>
<td>14.3</td>
<td>16.2</td>
<td>15.8</td>
</tr>
<tr>
<td>Advanced Components and Systems Segment (%)*2</td>
<td>1.0</td>
<td>4.8</td>
<td>2.3</td>
<td>5.2</td>
<td>3.1</td>
<td>(0.2)</td>
</tr>
<tr>
<td>Net income attributable to owners of the parent (Millions of yen)</td>
<td>18,818</td>
<td>29,464</td>
<td>22,567</td>
<td>38,512</td>
<td>40,186</td>
<td>36,324</td>
</tr>
<tr>
<td>Net income attributable to owners of the parent to revenue (%)</td>
<td>4.0</td>
<td>6.0</td>
<td>4.3</td>
<td>7.0</td>
<td>7.3</td>
<td>5.4</td>
</tr>
<tr>
<td>Return on equity (ROE) (%)</td>
<td>6.4</td>
<td>9.9</td>
<td>6.8</td>
<td>10.9</td>
<td>11.0</td>
<td>9.4</td>
</tr>
<tr>
<td>Return on invested capital (ROIC) (%)</td>
<td>5.0</td>
<td>8.5</td>
<td>6.0</td>
<td>12.7</td>
<td>12.3</td>
<td>7.7</td>
</tr>
<tr>
<td>Return on assets (ROA) (%)</td>
<td>4.1</td>
<td>6.2</td>
<td>4.4</td>
<td>7.1</td>
<td>7.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Debt/Equity attributable to owners of the parent ratio (DER) (Times)</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Dividend payout ratio (%)</td>
<td>42.1</td>
<td>25.4</td>
<td>33.2</td>
<td>27.0</td>
<td>28.5</td>
<td>34.0</td>
</tr>
<tr>
<td>R&amp;D expenses (Millions of yen)</td>
<td>25,534</td>
<td>26,234</td>
<td>26,920</td>
<td>27,816</td>
<td>28,164</td>
<td>30,839</td>
</tr>
<tr>
<td>R&amp;D expenses to revenue (%)</td>
<td>5.5</td>
<td>5.4</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
<td>4.6</td>
</tr>
<tr>
<td>Capital expenditures (Millions of yen)</td>
<td>46,698</td>
<td>31,935</td>
<td>26,643</td>
<td>32,022</td>
<td>39,859</td>
<td>42,589</td>
</tr>
<tr>
<td>Cash flows from operating activities (Millions of yen)</td>
<td>47,931</td>
<td>50,357</td>
<td>34,509</td>
<td>95,069</td>
<td>60,819</td>
<td>34,916</td>
</tr>
<tr>
<td>Cash flows from investing activities (Millions of yen)</td>
<td>(53,182)</td>
<td>(37,099)</td>
<td>(22,258)</td>
<td>(35,663)</td>
<td>(34,606)</td>
<td>(67,802)</td>
</tr>
<tr>
<td>Cash flows from financing activities (Millions of yen)</td>
<td>(2,867)</td>
<td>(2,374)</td>
<td>(16,874)</td>
<td>(22,123)</td>
<td>(36,476)</td>
<td>28,932</td>
</tr>
<tr>
<td>Cash and cash equivalents at fiscal year-end (Millions of yen)</td>
<td>73,978</td>
<td>87,652</td>
<td>88,997</td>
<td>119,988</td>
<td>107,649</td>
<td>84,037</td>
</tr>
</tbody>
</table>

*1: Data based on IFRS has been used from FY2013 onwards. *2: For detailed information on both segments, refer to page 17.
In the previous fiscal year, while the targets in the medium-term management plan were not achieved temporarily due to external factors including the product line and climate conditions, we were able to achieve the targets for fiscal year 2018 ahead of schedule in fiscal year 2017, overcoming the deterioration in the previous fiscal year, as a result of continuously implementing realistic energy-saving activities mainly at production sites. We will continue to aim to further reduce emissions per production unit in the final fiscal year by maintaining the promotion of energy-saving activities and further strengthening the Carbon Management Strategy on a Company-wide basis.

While the proportion of female managerial positions is still low, we have been hiring female employees in career-track positions in earnest since 2005 and taking a range of measures by setting the medium-term goal of maintaining the same proportion of female managerial positions as the proportion of female employees in career-track positions at the age of managerial appointment. Since the previous fiscal year, the number of employees who were over this age exceeded those who were newly appointed as managers, and the proportion of female managerial positions therefore declined. However, given that the proportion of female assistant managers is growing as we maintain individual development plans for candidates for female managers to build a pipeline, the proportion of female managerial positions is expected to increase in the years to come.

### ESG Management Data

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues of Environmental Conscious Products to total revenue (%)</td>
<td>61%</td>
<td>66%</td>
<td>70%</td>
<td>74%</td>
<td>69%</td>
<td>58%</td>
</tr>
<tr>
<td>Environmental investment (Billions of yen)</td>
<td>46.6</td>
<td>62.2</td>
<td>61.5</td>
<td>5.0</td>
<td>6.7</td>
<td>5.6</td>
</tr>
<tr>
<td>Energy consumption (TJ)</td>
<td>9,043</td>
<td>8,630</td>
<td>9,369</td>
<td>8,497</td>
<td>10,312</td>
<td>10,446</td>
</tr>
<tr>
<td>Greenhouse gas emissions (1,000 tons CO2e)</td>
<td>474</td>
<td>495</td>
<td>541</td>
<td>482</td>
<td>590</td>
<td>590</td>
</tr>
<tr>
<td>Greenhouse gas emissions per production unit (Tons CO2e per million yen)</td>
<td>1.27</td>
<td>1.43</td>
<td>1.40</td>
<td>1.32</td>
<td>1.41</td>
<td>1.23</td>
</tr>
<tr>
<td>CO2 emissions per production unit (% relative to FY2014)</td>
<td>-</td>
<td>-</td>
<td>100%</td>
<td>99%</td>
<td>101%</td>
<td>96%</td>
</tr>
<tr>
<td>Water consumption (1,000m³)</td>
<td>11,371</td>
<td>10,970</td>
<td>10,672</td>
<td>9,311</td>
<td>9,725</td>
<td>9,761</td>
</tr>
<tr>
<td>Volatile organic compound (VOC) emissions (Tons)</td>
<td>518</td>
<td>506</td>
<td>577</td>
<td>519</td>
<td>725</td>
<td>793</td>
</tr>
<tr>
<td>Number of participants in chemical substance management training (Persons)</td>
<td>-</td>
<td>710</td>
<td>374</td>
<td>400</td>
<td>460</td>
<td>304</td>
</tr>
<tr>
<td>Number of supplier audits (non-consolidated) (Companies)</td>
<td>96</td>
<td>89</td>
<td>73</td>
<td>137</td>
<td>162</td>
<td>147</td>
</tr>
<tr>
<td>Number of employees (outside Japan) (Persons)</td>
<td>17,732</td>
<td>18,149</td>
<td>19,499</td>
<td>19,117</td>
<td>20,043</td>
<td>20,431</td>
</tr>
<tr>
<td>Proportion of female managerial positions (non-consolidated) (%)</td>
<td>1.8</td>
<td>1.9</td>
<td>2.0</td>
<td>2.7</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Proportion of female managerial positions (under age of 45) (%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10.4</td>
<td>11.6</td>
<td>7.9</td>
</tr>
<tr>
<td>Proportion of female assistant managers (non-consolidated) (%)</td>
<td>2.2</td>
<td>2.6</td>
<td>3.8</td>
<td>2.9</td>
<td>2.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Number of participants in Global Coaching Program (Persons)</td>
<td>1,752</td>
<td>2,370</td>
<td>2,394</td>
<td>1,506</td>
<td>960</td>
<td>972</td>
</tr>
<tr>
<td>Accident frequency rate (Japan, consolidated)</td>
<td>0.25</td>
<td>0.34</td>
<td>0.09</td>
<td>0.10</td>
<td>0.15</td>
<td>0.20</td>
</tr>
<tr>
<td>Accident severity rate (Japan, consolidated)</td>
<td>0.011</td>
<td>0.003</td>
<td>0.001</td>
<td>0.007</td>
<td>0.001</td>
<td>0.012</td>
</tr>
<tr>
<td>Number of participants in BCP management simulation training (Persons)</td>
<td>77</td>
<td>71</td>
<td>72</td>
<td>73</td>
<td>34</td>
<td>94</td>
</tr>
<tr>
<td>Number of participants in compliance drill (Persons)</td>
<td>8,774</td>
<td>2,072</td>
<td>3,137</td>
<td>3,350</td>
<td>4,110</td>
<td>4,491</td>
</tr>
<tr>
<td>Number of patent applications (outside Japan) (Applications)</td>
<td>1,451</td>
<td>1,392</td>
<td>1,452</td>
<td>1,493</td>
<td>1,557</td>
<td>1,635</td>
</tr>
<tr>
<td>Number of patents held (outside Japan) (Patents)</td>
<td>4,545</td>
<td>4,988</td>
<td>5,501</td>
<td>6,429</td>
<td>6,870</td>
<td>6,710</td>
</tr>
<tr>
<td>Social contribution expenditure (Billions of yen)</td>
<td>111</td>
<td>103</td>
<td>107</td>
<td>138</td>
<td>159</td>
<td>263</td>
</tr>
<tr>
<td>Number of Directors (including Outside/ Female/Foreign Directors) (Persons)</td>
<td>7 (4/0/0)</td>
<td>8 (2/1/0)</td>
<td>9 (6/1/1)</td>
<td>9 (6/1/1)</td>
<td>11 (5/1/2)</td>
<td>11 (5/1/2)</td>
</tr>
</tbody>
</table>

*3: For the scope of the third-party assurance of environmental and social data, refer to p.91. *4: We have revised the definition from ECO-products until FY2015, and we have newly indexed the revenue ratio of Environmental Conscious Products. *5: Data covers major domestic production sites. *6: We have revised the definition from ECO-products until FY2015, and we have newly indexed the revenue ratio of Environmental Conscious Products. *7: Data covers major domestic production sites. *8: The numbers of sites and companies have been expanded (from 32 sites at 14 companies in FY2015 to 43 sites at 24 companies in FY2017). http://www.hitachi-chem.co.jp/english/csr/stakeholder/environment/plan-3rd.html. *9: The selected substances for investigation have been expanded from 41 substances to 77 substances. *10: Non-consolidated basis. *11: Business Continuity Plan. *12: Non-consolidated basis. As of the end of June of every fiscal year, 10 persons (5/1/2) as of the end of June 2018.
**Main products and the overview of fiscal year 2017 of each segment**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Major Products</th>
<th>Revenue</th>
<th>Related business areas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional Materials</strong></td>
<td><strong>Electronic</strong> Materials</td>
<td>Molding compounds, die bonding materials, CMP slurry</td>
<td>96 billion yen (105% of previous year’s level)</td>
</tr>
<tr>
<td></td>
<td><strong>Inorganic</strong> Materials</td>
<td>Anode materials and carbon materials for lithium-ion batteries</td>
<td>30.6 billion yen (125% of previous year’s level)</td>
</tr>
<tr>
<td></td>
<td><strong>Resin</strong> Materials</td>
<td>Molding resin, circuit-connecting films for displays</td>
<td>62.2 billion yen (106% of previous year’s level)</td>
</tr>
<tr>
<td></td>
<td><strong>Printed Wiring Board</strong> Materials</td>
<td>Copper-clad laminates, photosensitive films</td>
<td>83.3 billion yen (118% of previous year’s level)</td>
</tr>
<tr>
<td><strong>Advanced Components and Systems</strong></td>
<td><strong>Automotive</strong> Components</td>
<td>Molded plastics, friction materials, powder metal products</td>
<td>141.6 billion yen (114% of previous year’s level)</td>
</tr>
<tr>
<td></td>
<td><strong>Energy Storage Devices and Systems</strong></td>
<td>Automotive batteries, industrial batteries</td>
<td>176 billion yen (152% of previous year’s level)</td>
</tr>
<tr>
<td></td>
<td><strong>Electronic</strong> Components</td>
<td>Printed wiring boards</td>
<td>42.2 billion yen (117% of previous year’s level)</td>
</tr>
<tr>
<td></td>
<td><strong>Others</strong></td>
<td>Diagnostic reagents and devices, research reagents and kits / services for regenerative medicine</td>
<td>12.3 billion yen (272% of previous year’s level)</td>
</tr>
</tbody>
</table>
Global Network of Solution Operations under Concept of “Near Customer Site”

Hitachi Chemical group has opened its manufacturing, sales and research sites outside of Japan in order to provide best solutions to our customers. In addition, we have established regional headquarters in China and the U.S. to build an organizational structure to agilely respond to market needs.

**FY2017 Revenue and number of employees by region**

**Japan**
- Manufacturing: 12
- Sales and servicing: 5

**Asia (except Japan)**
- Manufacturing: 34
- Sales and servicing: 15

**Europe and U.S.**
- Manufacturing: 18
- Sales and servicing: 15

*Number of companies
*As of the end of March, 2018

To view details on our Group companies, access Hitachi Chemical's website ▶ About Hitachi Chemical ▶ Corporate Profile.
Strategy Development Process

Backcasting from “where we want to be in ten years’ time”
In fiscal year 2015, as a first step towards the next 50 years, we outlined our “where we want to be in ten years’ time” and settled on the 10-year Strategy to implement it. Backcasting from there, we formulated our 2018 Medium-term Management Plan. We regularly conduct gap management on the progress of this three-year medium-term management plan and review the annual plan. We also conduct materiality analysis every three years and reflect it in our medium-term management plan.

2012~2013 (50th Anniversary)
Formulating “Management Message Looks to the Future”
When we celebrated our 50th anniversary in 2012, we held a communication workshop attended by all staff members of the Hitachi Chemical Group. We formulated “Management Message Looks to the Future” by summarizing our business by anticipating 50 years in the future to the value offered, the way we want to be and our DNA that will drive our actions. The message was shared among all staff members.

Establishment of the Hitachi Chemical Group Identity and start of WOW-BB activities
We repeated discussions by anticipating 50 years in the future. Hitachi Chemical Group Identity, consisting of our “Mission,” “Founding Spirit” and the “Hitachi Chemical Group Vision,” was established in fiscal year 2013. To embody the Hitachi Chemical Group Vision, we have started WOW-BB activities that consist of the WOW Global Awards, in which the entire Group workforce can participate to create an aggressive corporate culture, as well as our 10-year Strategy.

2015
Formulation of our 10-year Strategy and the 2018 Medium-term Management Plan
With the aim of delivering the Hitachi Chemical Group Vision, we drew a blueprint for what we want to be in 10 years’ time and formulated our 10-year Strategy for making the blueprint come true. The value that Hitachi Chemical should deliver through its operations is defined as the enhancement of quality of life (QOL) and the achievement of a sustainable environment. In this way, we pursue growth that goes beyond simply an extension of our existing growth. Starting from “where we want to be in 10 years’ time,” the 2018 Medium-term Management Plan shows where we will be three years from where we were in 2016.

Materiality of Hitachi Chemical (2015)
In pursuit of long-term, sustainable growth, Hitachi Chemical conducts a materiality analysis to identify the priority issues that we should undertake in the three-year period of the next Medium-term Management Plan. The analysis is utilized in our business management. The following describes the materiality analysis in fiscal 2015.

Materiality Analysis Strategy Formulation

2015

50th Anniversary (2012)


2019

2021 Medium-term Management Plan
Delivering the Hitachi Chemical Group Vision

2025
Where We Want to Be in Ten Years’ Time

2018
Formulating 2021 Medium-term Management Plan

Currently, Hitachi Chemical is committed to materiality analysis in an effort to formulate the 2021 Medium-term Management Plan. We specify materiality for the purpose of ensuring sustained long-term growth. Joined by our Executive Officers and Directors and after hearing opinions from experts, we will push forward with the materiality analysis that aims to serve as the basis or starting point of our discussion of the Medium-term Management Plan.

Materiality Analysis Process

Step 1: Issue identification
- Analyze ESG trends both domestically and abroad, and identify key issues relevant to our business strategy
- Assessment of identified issues by external experts

Step 2: Priority evaluation by Executive officers
- Executive Officers’ evaluation of importance of issues assessed in Step 1 from the view of the Company and stakeholders
- Prioritize issues utilizing the materiality matrix on the left

Step 3: Management team approval
- Executive Officers at the level of Vice President and above, as well as Executive Officers in charge of management strategies and finance, attend a management strategy meeting to approve the priority issues.

For the details of “Management Message Looks to the Future,” refer to Hitachi Chemical’s website ➤ About Hitachi Chemical ➤ CSR ➤ Social Report Engagement with Stakeholders ➤ Stakeholders’ Dialogue ➤ “Moving Ahead the Next 50 Years.”

For the Hitachi Chemical Group Identity, refer to P.02.

For the WOW Global Awards, refer to P.14.

For the 2021 Medium-term Management Plan, refer to P.28.

For detailed information, refer to Hitachi Chemical’s website ➤ About Hitachi Chemical ➤ CSR ➤ Governance and CSR Management ➤ Hitachi Chemical’s Value Creation and Materiality.
Value Creation Process

To realize the Hitachi Chemical Group Vision, Hitachi Chemical is refining its core competencies and creating a wide range of technologies. Driven by this, we will implement “Working On Wonders” through our four businesses and provide value to stakeholders in terms of “Improve Quality of Life (QOL)” and “Realize Sustainable Environment.”

**Input**
Hitachi Chemical’s strengths

- **Financial capital**
  Stable financial base for expanding our operations
  ➨ P.10

- **Manufacturing capital**
  Global production base for capturing the growing market
  ➨ P.18

- **Intellectual capital**
  Extensive, in-depth know-how and core technologies that straddles organic and inorganic chemistry amassed through four original products
  ➨ P.03-04

- **Human capital**
  Diverse and global human resources that bring about innovation and solutions “World Class Professionals” ➨ P.38
  Pioneering mindset to work on “wonders” for society and customers, developed through “WOW-BB activities” ➨ P.05-14

- **Social and relationship capital**
  Cooperative relationships with many different stakeholders developed through open innovations (utilization of Open Laboratory and Innovation Center) ➨ P.29-36

- **Nature capital**
  Efficient use of resources and energy based on sustainable engineering ➨ P.11-12,37

**HC-Way of Marketing and Sales**
Become a person (group) that can discuss ideal future image with customers

**Core Competencies** ➨ P.29-33
Various Core Technologies + Business Conceptualization Ability

**HC-Way of Production**
Meet various customers’ requirements without fail by promptly providing solutions

**Analysis of Risks and Opportunities**

For other indicators, please refer to P.15-16.
Financial Results (FY2017)
Revenue 669.2 billion yen
Operating Margin 6.9 %
ROIC 7.7 %
ROE 9.4 %

Social and Environmental Impact (FY2017)
Reduction of CO₂ emissions aimed at preventing global warming
CO₂ emissions*1 96 %
Promotion of diversity and inclusion as part of management
Proportion of female managerial positions*2 7.9 %

*1: Per unit of sales compared to the FY2016 results
(major domestic production sites including those of Group companies)
*2: Non-consolidated, under age of 45
10-year Strategy

In order to realize the Hitachi Chemical Group Vision, we conceived a hypothetical future with a long-term outlook in our “where we want to be in ten years’ time,” then formulated the 10-year Strategy for its actualization.

Key Businesses Going Forward

Having analyzed medium- and long-term changes in the business climate and major industry trends, we see that “high efficiency” and “smart” will be important keywords for future markets. Further, utilizing various core technologies that constitute our core competencies, we will provide solutions in line with customer needs with materials, components and devices, as well as systems and services, promoting our key businesses such as Functional Materials, Automotive Products, Energy Storage Devices and Systems, and Life Sciences.

Where We Want to Be in Ten Years’ Time

A globally developing innovative solutions beyond the boundaries of chemistry, with advanced Functional Materials as core and extending to devices, systems and services

2015 ➔ 2025 Growth Target

A globally active innovator providing high value-added solutions unattainable by other companies, demonstrating performance that will prevail in global competition

Operating margin: 14%+

Forecast of Macro Environment

Industry Trends

- Electronics/Automobiles
- Aircraft/Environment
- Energy
- Social infrastructure (Construction)/Agriculture/Life Sciences

High Efficiency

- Acceleration
- Lighter
- No waste

Smart

- Individualization
- Diversification
- Connected

Improve Quality of Life (QOL)

Realize Sustainable Environment

Materials

Parts/Devices

Systems/Service

Core Competencies: Various Core Technologies + Business Design

Packaging Materials

- De facto standardization by providing total solution

Automotive Products

- Access to European and American manufacturers

Energy Storage Devices and Systems

- Globalization
- Propose systems

Life Sciences

- Expand business area (Europe and America)
- Expand lineup of highly functional resins

Anisotropic Conductive Film

CMP Slurry

Anode Materials

For information on Various Core Technologies, refer to P.03–04.
Long-term Growth Milestones

<table>
<thead>
<tr>
<th>Four businesses</th>
<th>Short-term (1–3 years)</th>
<th>Medium-term (4–6 years)</th>
<th>Long-term (7 years+)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional Materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Packaging materials/High functional resins, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fast product cycles, but areas that can generate short to medium-term cash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strengthen electronics packaging materials</td>
<td>• High functional products for new electronic devices (Next-generation packaging materials such as 3D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strengthen top share products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Automotive Products</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Areas with many new business opportunities for materials that will support stable growth for the next 10 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Preparation</td>
<td>• Lighter weight materials Adhesives Heat management materials IoT-related materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Energy Storage Devices and Systems</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Areas that can grow as a base business through business expansion from global developments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Preparation</td>
<td>• Lead/LiB (hybrid) storage battery systems Energy management systems Materials for new energy (Hydrogen/wind power)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Life Sciences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Areas that will contribute to long-term growth beyond 10 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Preparation</td>
<td>• Genetic diagnosis Regenerative medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Change How We Compete, Reflecting Changes in Business Climate

**Business climate**
- Present: Japanese companies are market drivers
  - Key is close ties with winner customers
- In the future: Business becoming borderless
  - A global, multifaceted approach is essential

**Value provided**
- Present: Distinctive materials
- In the future: Solution functions
  - Erecting higher barriers to entry
  - Business model appeal

**Business style**
- Present: Material properties/Process differentiation
  - Best product appeal
- In the future: Ability to discern true needs
  - Ability to offer Business Design
  - Business conceptualization ability

**Core competencies**
- Present: Materials technologies that bring forth function/Process products/Evaluation technologies to translate needs
  - Various core technologies
- In the future: Various core technologies

Promotion of ESG Management

**Present**
- Importance to Stakeholders
- Importance to Business
  - Conduct Materiality Analysis and engage in ESG from both perspectives

**In the future**

In addition to the above, we will disclose information in a timely and appropriate manner while taking into account the UN Sustainable Development Goals (SDGs) and further enhancing the initiatives.

**Environment (E)**
- Carbon Management Strategy (reduce CO2 emissions)
- Reduce water usage
- Reduce waste
- Promote sustainable engineering

**Society (S)**
- Promote diversity
- Promote occupational health and safety
- Respect human rights
- Promote activities that contribute to local community

**Governance (G)**
- Secure shareholder rights and equality
- Appropriate collaboration with stakeholders
- Secure appropriate disclosure and transparency
- Fulfill responsibilities such as Board of Directors meetings
- Dialogue with shareholders

For detailed information on ESG management, refer to P.37–48.

For information on Materiality Analysis, refer to P.19–20.
2018 Medium-term Management Plan

Basic Policies

- Strengthen Global Business
  - Cultivate top share business by changing method of competition
  - Accelerate commercialization through Open Innovation

- Strengthen Management Base
  - Build global management infrastructure
  - Establish cost structure as a global business leader

Key Measures

- Expansion of global top share business through reforms to Niche and Cluster business structures
- Accelerate commercialization by “Collaborative Creation” using outside resources
- Acquire technologies and business platforms from outside the Group and accelerate growth

Promotion of ESG management

- Reducing CO₂ emissions in the Group
- Promoting career opportunities for female employees
- Reinforcing corporate governance based on efficacy evaluations
- Rebuilding compliance structures and thoroughly implementing training in order to prevent recurrence of cartel issues

Outcomes and Forecasts of the 2018 Medium-term Management Plan

<table>
<thead>
<tr>
<th></th>
<th>FY2016</th>
<th>FY2017</th>
<th>FY2018 Target</th>
<th>FY2018 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>554.1 billion yen</td>
<td>669.2 billion yen</td>
<td><strong>CAGR 7-8% (FY2015–FY2018)</strong></td>
<td>710 billion yen</td>
</tr>
<tr>
<td>Operating margin</td>
<td>9.6% (9.8%)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>6.9% (8.5%)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>11%</td>
<td>8.3% (9.2%)&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>ROIC</td>
<td>12.3%</td>
<td>7.7%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Functional Materials:</td>
<td>30.1%</td>
<td>29.8%</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Automotive Products:</td>
<td>7.0%</td>
<td>5.8%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Energy Storage Devices and Systems:</td>
<td>6.0%</td>
<td>1.5%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>11.1%</td>
<td>9.4%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>CO₂ emissions&lt;sup&gt;1&lt;/sup&gt;</td>
<td>101%</td>
<td>96%</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td>Proportion of female managerial positions&lt;sup&gt;2&lt;/sup&gt;</td>
<td>11.6%</td>
<td>7.9%</td>
<td>12.0%</td>
<td></td>
</tr>
</tbody>
</table>

*1: CO₂ emissions: Per unit of sales compared to the FY2014 results (domestic production sites)

*2: Proportion of female managerial positions: Non-consolidated, under age of 45

*3: Operating margin: Operating margin without other income and expenses
## Reflections on FY2017 and Initiatives for FY2018

### FY2017 Progress

- Acquired global business bases and increased the scale through M&A
- Expanded sales of Niche products (anode material, CMP slurry)
- Proposed and adopted new packages for the packaging material cluster
- Expanded the mass production of formed resin for molded exterior products
- Started the mass production of copper-free disk brake pad
- Entered agreements on the contracted manufacturing of regenerative medicine products

### Issues

- Failure to respond in a timely fashion to the rapid decline in demand for mobile devices
- Deterioration of the product line due to delays in launching new products and withdrawing non-core products
- Delay in responding to the rapid increase in raw material prices
- Insufficient synergy with merged and acquired companies
- Fines and compensations paid (approximately 10 billion yen) over capacitor cartel

### Initiatives for FY2018

- Reap results from Niche and Cluster businesses
- New businesses and new products to contribute to profitability
- Make a comprehensive, bold shakeup of the product line
- Secure profitability through synergy generated with new consolidated subsidiaries
- Improve productivity globally
- Build a global management infrastructure

### Strategies for Key Businesses

<table>
<thead>
<tr>
<th>Functional Materials</th>
<th>Automotive Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen key businesses through Niche and Cluster Strategies</td>
<td>Strengthen base to become a global top supplier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Energy Storage Devices and Systems</th>
<th>Life Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish presence in global markets through increased scale</td>
<td>Cultivate future foundation business based on materials technology and diagnostic reagent business</td>
</tr>
</tbody>
</table>

### Investment Strategy

**Basic Policy**
Invest in growth areas as much as 1.5 times the previous Medium-term Plan

- Relocation and expansion of Packaging Solution Center
- Expand nanoceria slurry production capacity
- Work Life Innovation for indirect operations (IT investment, etc.)

#### Investment Amount

<table>
<thead>
<tr>
<th>Year</th>
<th>Life Sciences</th>
<th>Energy Storage Devices and Systems</th>
<th>Automotive Products</th>
<th>High Functional Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2016</td>
<td>Investment amount</td>
<td>39.9 billion yen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY2017</td>
<td>Investment amount</td>
<td>42.6 billion yen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY2018</td>
<td>Investment amount</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Accelerate investment in growth fields and cost structure improvements

For the progress of strategies for key businesses and the focus of efforts in fiscal year 2018, refer to the following pages.

- Automotive Products: P.31-32.
- Energy Storage Devices and Systems: P.33-34.

For detailed information, refer to Hitachi Chemicals Website ► About Hitachi Chemical ► News release.
Jan.12, 2017: Relocating and Upgrading the Open Laboratory that Promotes Open Innovation for Semiconductor Packaging Materials and Processes
**Strengthening Our Management Base**

### Accelerate action in line with the business development on a global basis

#### Global improvements in productivity

<table>
<thead>
<tr>
<th>FY2017 Progress</th>
<th>Initiatives for FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promote advanced manufacturing processes leveraging IoT and AI</strong></td>
<td>Use AI to automate parts of the production process</td>
</tr>
<tr>
<td>Used an IoT system to ensure appropriate inventory levels for automotive batteries</td>
<td></td>
</tr>
</tbody>
</table>

#### Building global management infrastructure

<table>
<thead>
<tr>
<th>FY2017 Progress</th>
<th>Initiatives for FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increase the speed of decision making, reinforce corporate governance</strong></td>
<td>Further develop businesses in Greater China and the ASEAN region</td>
</tr>
<tr>
<td>Built up the coordination capabilities of our regional headquarters in North America</td>
<td></td>
</tr>
</tbody>
</table>

### Promotion of ESG Management

<table>
<thead>
<tr>
<th>Environment (E)</th>
<th>Initiatives for FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reducing CO₂ emissions in the Group</strong></td>
<td>Target: 96%</td>
</tr>
<tr>
<td>96%*1</td>
<td>Further strengthen energy conservation activities</td>
</tr>
<tr>
<td>Focused on energy-saving measures in facilities where emissions per unit of production deteriorated</td>
<td></td>
</tr>
<tr>
<td>• Simulated the activities of the Energy Conservation Committee</td>
<td></td>
</tr>
<tr>
<td>• Moved forward with steady “Carbon Management Strategy”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social (S)</th>
<th>Initiatives for FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promoting career opportunities for female employees</strong></td>
<td>Target: 12.0%</td>
</tr>
<tr>
<td>7.9%*2</td>
<td>Accelerate the retention and training of candidates for management positions</td>
</tr>
<tr>
<td>Secured and trained candidates for management positions</td>
<td></td>
</tr>
<tr>
<td>Created an environment where female employees can play active roles</td>
<td></td>
</tr>
<tr>
<td>• Further promoted flexible working styles including teleworking and discretionary working systems</td>
<td></td>
</tr>
<tr>
<td>• Continued training to raise awareness, and changed behavior of female managers</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Governance (G)</th>
<th>Initiatives for FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reinforcing corporate governance based on efficacy evaluations</strong></td>
<td></td>
</tr>
<tr>
<td>Efficacy evaluation of Board of Directors</td>
<td>Held interviews, particularly with Outside Directors</td>
</tr>
<tr>
<td>Holding off-site meetings</td>
<td>All Directors and Executive Officers took part in meetings for the first time</td>
</tr>
<tr>
<td>Selecting and developing candidates for next-term successors by Board of Directors</td>
<td>Began implementing the selection / development process</td>
</tr>
<tr>
<td>Audit of Group companies by Outside Directors</td>
<td>Continued to visit and inspect business sites in Japan and abroad</td>
</tr>
</tbody>
</table>

| Rebuilding compliance structures and thoroughly implementing training in order to prevent recurrence of cartel issues |
Dividends

- Dividend payout ratio (%) - Dividend per share (yen)

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend Payout Ratio</th>
<th>Dividend per Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2014</td>
<td>33%</td>
<td>¥36</td>
</tr>
<tr>
<td>FY2015</td>
<td>27%</td>
<td>¥50</td>
</tr>
<tr>
<td>FY2016</td>
<td>29%</td>
<td>¥55</td>
</tr>
<tr>
<td>FY2017</td>
<td>34%</td>
<td>¥60</td>
</tr>
</tbody>
</table>

Dividend increased by 5 yen in FY2017

Continue policy to pay stable dividends targeting dividend payout ratio of around 30%

Approach for 2021 Medium-term Management Plan

External Environmental Changes
- Changes in market structure through artificial intelligence, digitalization, automated driving
- Coordination between different industries through growth of ICT (business ecosystems)
- Creation of Society 5.0 (supply necessary services/items only when needed, as needed)
- Promotion of SDGs globally, accelerating the realization of a sustainable society

Impact on Our Company

QOL improvements
- Automated driving / progress on ADAS
- Greater use of IoT, AI
- Introduction of high-speed communications (5G)
- Development of preventative / advanced medical treatment
- Further improvements in fuel efficiency
- Shift to EVs
- Reduced burden on environment (greenhouse gases / reduce contaminants, renewable energy)

Realization of a sustainable environment

Our Contribution

<table>
<thead>
<tr>
<th>Environmental changes</th>
<th>Issues</th>
<th>Required characteristics</th>
<th>Our technologies / products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated driving ADAS</td>
<td>Sensor diversification</td>
<td>Next generation semiconductors, displays, packaging materials</td>
<td>Technology for packaging materials</td>
</tr>
<tr>
<td>Greater use of IoT, AI</td>
<td>High-speed communications (5G)</td>
<td></td>
<td>Technology for packaging processes</td>
</tr>
<tr>
<td>Improved quality of medical services</td>
<td>Large capacity storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhanced preventive medicine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanded regenerative medicine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stable cell supply</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental changes</th>
<th>Issues</th>
<th>Required characteristics</th>
<th>Our technologies / products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift to EVs</td>
<td>Safety, longer continuous driving distance</td>
<td>Improved performance of storage batteries</td>
<td>Anode materials / electrolytes</td>
</tr>
<tr>
<td></td>
<td>Further fuel efficiency improvements</td>
<td>Heat management</td>
<td>Thermal insulation material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electronic control</td>
<td>Power semiconductor material</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weight saving</td>
<td>Plastic molding</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adhesives</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lightweight metals</td>
</tr>
<tr>
<td></td>
<td>Greater use of renewable energy</td>
<td>Improved efficiency of energy usage</td>
<td>Energy management systems</td>
</tr>
</tbody>
</table>

Our Strategy

ICT
Information and Communication Technology

Society 5.0
Refers to a human-centered society that supports economic development and the solution of social issues at the same time, based on a system that closely integrates a virtual space with a physical space (the Cabinet Office).

ADAS
Advanced Driver Assistance Systems

EV
Electric Vehicle
Functional Materials

Basic Policies of the 2018 Medium-term Management Plan

Strengthen key businesses through Niche and Cluster Strategies

Strengths

- A wide array of material technologies
- Product functions and design excellence of product forms
- Semiconductor packaging materials, process technologies and state-of-the-art simulation evaluation facilities
- Ability to offer proposals suited to customer needs

Weaknesses

- Delay in taking actions toward the diverse needs by overemphasizing the self-sufficiency principle
- Dispersion of development/marketing resources through multi-axial deployment of businesses

Opportunities

- Expansion of markets for electrification, 5G and automatic driving
- Growth in the semiconductor package market
- Increase of highly functional adhesives and anode materials in the automotive market

Threats

- Increased competition (products, services, and prices) in main product areas
- Rise in the risk of slowed growth in Chinese economy

M&A/Alliance strategies

The Functional Materials Business will focus on “expanding alliances across the entire value chain” and “gaining global competitive advantage through increased scale,” and will acquire technologies, business platforms and foundations from outside resources.

ROIC (FY2017)

29.8% (FY2018 Target: 27%)

ROIC is managed by referring to the ROIC of our competitors. We plan to further improve our ROIC going forward.

Fiscal Year 2017 Progress

In Niche products, we expanded sales of nanoceria slurries to contribute to the miniaturization of semiconductor devices. The nanoceria slurries use finer abrasive grains than those of conventional products and boast a technological advantage that no other company can imitate. They are increasingly applied to the most advanced area of semiconductors, a growing product category. QD (quantum dot) films, a new product, match the market needs for compatibility between high definition and the reduction of environmental burdens. Our QD films were introduced to next-generation 4K and 8K displays. In the Cluster businesses, great demand is expected in highly functional laminate materials for semiconductor devices and modules for use in AI, automatic driving and 5G (next-generation radio technology), among others. Therefore, we decided to construct a new plant for copper-clad laminates at HCET, our subsidiary. This is intended to prepare for the establishment of a supply system. Furthermore, the Open Laboratory for Semiconductor Packaging Materials is increasingly gaining industry recognition and cooperative projects with clients, material manufacturers and device manufacturers are gradually expanding. Therefore, we decided to relocate the Open Laboratory to Shin-Kawasaki (Kawasaki-shi, Kanagawa), a convenient area in terms of transportation, in an effort to streamline research and development.

Key Measures for Fiscal Year 2018

Strengthen key businesses through Niche and Cluster Strategies

In Niche products, we will focus on growing fields in an effort to achieve further growth. The recent rise in demand for high-density semiconductor devices led to a rising need for nanoceria. The capacity of our production facilities in Japan and Taiwan will be reinforced so that our mass production capacity grows five times larger. (The facilities started operating in the summer of 2018.) In this way, we will proceed
Outputs and Strategies of the 2018 Medium-term Management Plan

<table>
<thead>
<tr>
<th>FY2017 Progress</th>
<th>Initiatives for FY2018</th>
<th>Goals for FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niche products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anisotropic conductive films</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Opened Integration Lab in Suzhou, China to increase our market share</td>
<td>• Set up an evaluation facility in Chongqing, China to capture demand</td>
<td>Niche and Cluster Strategies that take advantage of M&amp;As and alliances have had impact, and business is expanding at a pace exceeding the market growth rate.</td>
</tr>
<tr>
<td>• Received orders for high-definition displays in PAL-ACF</td>
<td>• Beat competitors to increase our market share in advanced fields</td>
<td>Niche products global top share has been maintained and expanded by erecting higher barriers for entry</td>
</tr>
<tr>
<td>CMP slurries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increased sales of nanoceria slurry that enables micro semiconductor devices</td>
<td>• Expand nanoceria slurry production capacity by 5 times (in Japan and Taiwan)</td>
<td>Semiconductor packaging materials de facto standardization is achieved in next-generation packaging technology through collaborative creation using outside resources</td>
</tr>
<tr>
<td>Carbon anode materials for lithium-ion batteries</td>
<td></td>
<td>High functional resins adhesives and insulating varnishes have entered the U.S. and European markets and sales have increased</td>
</tr>
<tr>
<td>• Captured strong demand for xEV</td>
<td>• Build a supply system to capture growing global demand</td>
<td></td>
</tr>
<tr>
<td>Cluster businesses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semiconductor packaging materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Proposed and adopted new packages based on open lab strategies</td>
<td>• Relocate Packaging Solution Center improve its function</td>
<td></td>
</tr>
<tr>
<td>• Accelerate development collaboration with customers, material suppliers, and device manufacturers</td>
<td>• Continue acceleration of development collaboration with customers, material suppliers, and device manufacturers</td>
<td></td>
</tr>
<tr>
<td>High functional resins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Focused on the growth area of automotive application to boost sales</td>
<td>• Maintain focus on automotive application for business expansion on a global basis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Build a development center for plastic products in Johor, Malaysia to strengthen our ability to capture demand in Asia</td>
<td></td>
</tr>
</tbody>
</table>

with sales expansion on a global scale. Our QD films will be increasingly introduced to 4K and 8K displays and their sales will therefore expand.

Hitachi Chemical has a wide selection of semiconductor packaging materials to the extent they can provide an overview of the semiconductor packaging process. We boast the top share of such materials in the industry. To strengthen our advantage, we will aggressively push forward by cooperating with outside resources through the strengthened function of the Open Laboratory, and will establish a process for new semiconductor packages. Also, we will continue to discuss and consider the launch of a new project using open innovations such as M&A and alliances with other companies.

Strengthening our capabilities to create customer-tailored proposals through our Open Laboratory

The Packaging Solution Center of the Open Laboratory has the most-advanced equipment and evaluation devices for use in the back-end process of semiconductor manufacturing. Engineers of our customers, device manufacturers and material manufacturers can work together in the Laboratory to experimentally make and evaluate new semiconductor packages. We will serve as a solution provider in the development of processes, for example, by making proposals on optimal combinations of packaging materials for different processes and on the use of the packages, including the process conditions. In this way we will strive to establish an unshakable position in the industry.

Using the most advanced material technologies, Hitachi Chemical develops products that will help to solve many different problems. For example, 4K and 8K displays are expected to have a wider range of color. This can be achieved using Hitachi Chemical’s QD films without increasing the consumption of electric power. There is large market potential in China, South Korea and other Asian countries, all of which are the main target of the TV market. Also, Hitachi Chemical launched Hitachi Wrap—Blue Type, commercial-use wrap that is designed to be easily distinguishable to identify any film pieces mixed in with food. Subsequently, three-color wrap with characters from the popular picture book Barbapapa launched in April 2018 to provide consumers or households with greater fun in their kitchen.
A number of initiatives were taken under the slogan of "strengthen base to become a global top supplier." The Company’s exterior plastic molded foam products were used in the new SUBARU XV SUV, expanding to mass production. In Thailand, the opening of a new design center for powder metal products helps secure new orders in India and Southeast Asia. For friction materials, the Group has established production and supply systems in Japan as well as China, Thailand and Mexico amid expectation of rising demand in the future, such as the copper-free friction materials being used in Ford Motors’ Fusion.

Additionally, by making ISOLITE GmbH a consolidated subsidiary, the Hitachi Chemical has strengthened the global expansion of insulation materials that address the needs to comply with environmental regulations, including the sale of ISOLITE products in Japan and the use of ISOLITE’s sales locations in Europe to expand sales of Hitachi Chemical products.

**Key Measures for Fiscal Year 2018**

**Active development of European markets**
As an European regional strategy, the Group will leverage the European manufacturing and sales channels of ISOLITE in an effort to expand global sales of Hitachi Chemical products based on the insulating materials business, including friction materials, powder metal products and plastic gears. Additionally, the Group will augment its sales and marketing resources primarily through the Detroit office of HCA, and pursue its North American regional strategy with products such as friction materials, powder metal products, molded plastic, insulating materials.

**Expanding the Automotive Business through a fusion with Functional Materials**
With sights set on future automotive business trends, the Group will seek to expand the Automotive Business through a fusion with Functional Materials. To achieve this, Hitachi Chemical has launched a
To expand businesses, a system that will maintain Hitachi Chemical’s competitive advantage is in place. The number of customers has increased due to the cultivation of new customers. Production has begun at alliance partners.

### Outputs and Strategies of the 2018 Medium-term Management Plan

<table>
<thead>
<tr>
<th>FY2017 Progress</th>
<th>Initiatives for FY2018</th>
<th>Goals for FY2018</th>
<th>Goals for the 10-year Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies for environmentally friendly products at the world-class level</td>
<td>Molded products</td>
<td>• Expand the mass production of Exterior plastic molded foam products</td>
<td>• Continue to respond to weight-saving needs</td>
</tr>
<tr>
<td></td>
<td>Powder Metal Products</td>
<td>• Established a design center in Thailand, received new local orders</td>
<td>• Successfully start up operations planned in FY2018</td>
</tr>
<tr>
<td></td>
<td>Friction materials</td>
<td>• Started the mass production of copper-free disk brake pads for U.S. auto manufacturers</td>
<td>• Continue to respond to market needs for copper-free disk brake pads</td>
</tr>
<tr>
<td>Globally extending sales, development and production sites</td>
<td>M&amp;A</td>
<td>• Made ISOLITE a consolidated subsidiary</td>
<td>• Expanding global sales of insulating materials in response to demands for environmental regulatory compliance</td>
</tr>
</tbody>
</table>

marketing project spanning multiple divisions and is conducting market analysis and research. In fiscal year 2018, the Group will develop strategies and technologies aimed at further participation in the HEV market, and expand into EV market as its next target.

### Strategies for environmentally friendly products at the world-class level

An automobile’s environmental soundness, including lighter weight, restrictions on pollutant emissions and thermal management, is expected to become increasingly critical. Hitachi Chemical has a wide range of eco-friendly products in the molded plastic products, powder metal products and friction materials fields, and we will continue to focus on increasing sales of these products. Moreover, in the field of thermal management, we will focus on creating a synergy between the technologies of ISOLITE and Hitachi Chemical.

#### ISOLITE Thermal Insulations

ISOLITE, which was made a consolidated subsidiary in fiscal year 2017, is engaged in the manufacturing and sale of insulating components for automobiles, aircraft and industrial applications and is highly regarded for its unique and highly effective insulating components. With demand for environmentally sound products on the increase, Hitachi Chemical will continue to expand the businesses of both companies through cross-selling, accelerate the development of eco-friendly products through synergies in insulating technologies, and strengthen its proposals for thermal management solutions for products such as engines and exhaust system components.
Capturing demand in growth areas of industrial use business

In our global operations, we will reap synergies with HCEN and FET and pursue initiatives to increase profitability. We will also increase sales of next-generation monitoring system operated by storage batteries (Gen.2.0) to customers such as data centers and telecommunication base stations. In capacitators business, we will put the transition to high performance capacitors on track, continuing to focus on medical, social infrastructure and energy fields.

We will also invest resources into new batteries such as nickel-zinc batteries as an alternative to lead-acid batteries, to meet new market needs.

Fiscal Year 2017 Progress

The basic policy of the Energy Storage Systems Business is to “establish a presence in global markets through increased scale.” By fiscal 2017, we had successfully acquired a global network of manufacturing bases, brands and business flow in Europe and ASEAN through M&A. In fiscal 2017, we acquired shares in TSB, a Thailand battery manufacturer, laying the foundations to strengthen our automotive and lead-acid storage battery business for industrial use in Southeast Asia. Meanwhile, in the domestic automotive battery business, we were able to expand sales of ISS-equipped vehicle batteries.

We put in place a framework that will enable us to demonstrate synergies with TSB, HCTD, FET and HCEN over the globe including Japan. We completed the “Smart Community Demonstration Project in the Federal Republic of Germany” held in the German city of Speyer as one of NEDO (New Energy and Industrial Technology Development Organization)’s demonstration projects in Europe. We demonstrated that our integrated system improved the self-consumption rate of electricity produced by photovoltaic panels and also helped reduce CO₂ emissions.

However, the effects of rising prices for lead raw materials and the appreciation of the Taiwan dollar led to lower profitability. To address this, we worked on building a business base that is less sensitive to raw material prices, especially lead prices.

Key Measures for Fiscal Year 2018

Forecast market for industrial batteries
(Source: Hitachi Chemical)

<table>
<thead>
<tr>
<th>Year</th>
<th>Renewable energy/ systems, others</th>
<th>Mobile</th>
<th>UPS/ Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>1,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outputs and Strategies of the 2018 Medium-term Management Plan

<table>
<thead>
<tr>
<th>FY2017 Progress</th>
<th>Initiatives for FY2018</th>
<th>Goals for FY2018</th>
<th>Goals for the 16-year Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increased business scale in Europe and ASEAN through M&amp;A (Outside Japan revenue ratio 60%)</td>
<td>• Increase the profitability of TSB and FET by demonstrating synergies (improved manufacturing, etc.)</td>
<td>• Regional strategies: Manufacturing synergy (Optimization of bases) Put the new industrial and automotive battery businesses in Europe and ASEAN into on track</td>
<td>• To become one of the global top three manufacturers of automotive and industrial batteries and capacitors</td>
</tr>
<tr>
<td>• Promoted to establish a business foundation that is less susceptible to influences from fluctuations in raw material prices</td>
<td>• Assess the development of lithium-ion batteries and new batteries through a project framework</td>
<td>• Sales strategies: Sales synergy Utilize branding and maximize cross-selling</td>
<td></td>
</tr>
<tr>
<td>• Insufficient synergy effect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Industrial batteries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increased sales in the areas of mobile devices and UPS/telecommunications</td>
<td>• Strengthen the global supply system</td>
<td>• Product strategies: Development synergy (High value-added products) • Industrial: Development of new products that generate synergy</td>
<td></td>
</tr>
<tr>
<td>• Launched a monitoring system of battery conditions (current, voltage, temp. etc.)</td>
<td>• Shift to maintenance services through the monitoring system</td>
<td>• Automotive: Expansion of our ISS batteries in Europe</td>
<td></td>
</tr>
<tr>
<td><strong>Automotive batteries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ASEAN: acquisition of new sales channels/brands</td>
<td>• TSB: Appropriate pricing and transfer of Japanese manufacturing technology</td>
<td>• Capacitors: Shift to high-performance products</td>
<td></td>
</tr>
<tr>
<td>• Achievement of the target of high performance batteries for ISS vehicles</td>
<td>• FET: Expand our market share in Europe by sharing the Company’s ISS technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capacitors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Continuation of product shift through the shift of resources to high functional products</td>
<td>• Put the shift to high performance capacitors on track (continue focusing on medical, social infrastructure and energy fields)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Storage Battery Monitoring System

This system enables users to quickly know any battery problems in important facilities such as telecommunication base stations and to reduce maintenance man-hours. Hitachi Chemical began increasing sales of the system to data centers in fiscal 2016 and has introduced a new product (Gen2.0) in fiscal 2018. The characteristics of the new product compared to the conventional product (Gen 1.0) are as follows.

- Enables measurement of the capacity of lead-acid storage batteries for telecommunications and UPS in cells (in 2V cells)
- Improves frequency change function in the event of communication difficulties and otherwise improves the reliability of wireless communication

Capture global demand in automotive battery business

To enable us to demonstrate Group synergy, we will take advantage of FET’s sales networks and brand strength in Europe, while at the same time seeking to expand our share of the European market by rolling out our environmentally friendly ISS battery technologies to meet strong demand for environmentally friendly products. We will also introduce the Group’s manufacturing technologies to TSB and seek to improve its business performance in line with market expansion in the ASEAN region.

Meanwhile, Hitachi Chemical will work on expanding sales of European Norm (EN) batteries as well as ISS batteries.

**Tuflong G3**

ISS vehicles are rapidly expanding, especially in Japan and Europe. Hitachi Chemical’s Tuflong G3 battery for ISS vehicles won the Nippon Brand Award category in the 14th ‘CHO’ MONODZUKURI Innovative Parts and Components Awards in November 2017, in recognition of its durability that helps improve fuel economy and reduce CO2 emissions. Tuflong G3 also won the METI Minister’s Award in the 17th GSC Awards in June 2018.

‘CHO’ MONODZUKURI Innovative Parts and Components Awards

These awards are presented by MONODZUKURI Nippon Conference and Nikkan Kogyo Shimbun, Ltd. to enterprises whose parts play a significant role in supporting Japanese industry and society, with the spotlight directed on parts and members playing a behind-the-scenes role as a source of manufacturing competitiveness.

GSC Awards - METI Minister’s Award

Awarded by Japan Association for Chemical Innovation (JACI) to individuals and organizations that make an outstanding contribution to green sustainability chemistry (GSC). The METI Minister’s Award is awarded to individuals and organizations that have contributed to the development of industrial technology.

**UPS**

Uninterruptible Power Supply

An uninterruptible power supply (UPS) is a power source apparatus. Since it incorporates a apparatus such as a secondary battery to store electrical power, it provides emergency power to an external load during a definite period of time with set output when the input power source fails.

**ISS**

Idling Stop System

NEDO European Verification Projects

Hitachi Chemical is participating in three NEDO verification projects in Europe. One such project, a demonstration project conducted in the Germany city of Speyer, was completed in fiscal year 2017. This project used a hybrid storage system combining lithium-ion batteries and lead-acid batteries.

**Forklift batteries**

We will roll out our forklift battery technology that has been tried and tested in Japan to TSB. We will gradually start production of new batteries with better low temperature performance and battery life than TSB’s conventional products.
Building our business foundation by utilizing external resources through M&A, alliances and other methods brought us a good result.

In the regenerative medicine business, we invested nearly ¥2 billion and opened a new facility for the development and contract manufacturing for regenerative cells in Yokohama. This is one of the largest facilities of its kind in Japan. We also successfully received orders from clients. Entering into agreements for contract cell manufacturing with two companies, Daiichi Sankyo Co. Ltd. and SanBio Co. Ltd., we laid the foundation for the full-scale launch of our contract cell manufacturing business. Moreover, we concluded a technical license agreement with Accellta Ltd., an Israeli company with advanced technology for making culture media.

In the diagnostic reagents business, Kyowa Medex Co., Ltd., a company that specializes in diagnostic reagents for diseases such as diabetes and dislipidemia, has become our consolidated subsidiary through which we have a robust foundation for our diagnostic reagents. We have launched efforts including the mutual utilization of business locations and sales networks, improvement of our product lineups and addition of specialized personnel.

Kyowa Medex Co., Ltd.
Kyowa Medex has an extensive lineup of products such as diagnostic reagents used in tests for dyslipidemia, diabetes, cancer and renal diseases. In particular, the company has large shares in Japan related to dyslipidemia, and diabetes.

M&A/Alliance strategies
Hitachi Chemical has been focusing on the establishment of infrastructure in the field of diagnostic reagent business and regenerative medicine through the acquisition of technologies and business foundations from the outside.

Kyowa Medex Co., Ltd.
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HCATS
Hitachi Chemical Advanced Therapeutic Solutions, LLC (formerly PCT Cell Therapy Services, LLC) is highly skilled in the development of regenerative products technologies for manufacturing and testing as well as business operations.

Executive Officer
General Manager
Life Science Business Headquarters
Masato Yoshida

Life Sciences

Basic Policies of the 2018 Medium-term Management Plan

Cultivate future foundation of business based on materials technology and diagnostic reagent business

Strengths
• Business experiences in Life Science field (pharmaceutical and diagnostics business)
• Accumulation of applicable technologies to the Life science field (wiring board technologies and material technologies)
• Collaboration with other companies, other businesses and the Hitachi Group

Weaknesses
• Inadequate interaction between R&D and building business models

Opportunities
• Rapid growth in the regenerative medicine markets
• Expansion of personalized medical care (treatment) (including genetic diagnosis)
• Expansion of health care-related markets

Threats
• Aggressive competition among various players, including major players and venture businesses
• Policies for reduction in medical spending

Fiscal Year 2017 Progress
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Key Measures for Fiscal Year 2018

Establish business foundations for regenerative medicine
The worldwide market of regenerative medicine is expected to exceed ¥3 trillion in 2025. We will strive to establish our presence in partnership with the Hitachi Group to develop technology for the mass production of regenerative products and by leveraging HCATS’ fully automated cell production technology. Contract cell manufacturing from Daiichi Sankyo Co., Ltd. and SanBio Co., Ltd. will launch on a full scale. The addition of clean rooms is also planned with the aim of speedily addressing our clients’ needs for contract cell manufacturing.

We will also build a system for streamlining our manufacturing practices using Accellta’s latest culture media technology.

Cultivation process of cancer immunotherapy and scope of our business

Blood collection Separation Cultivation Examination Infusion

Cell sorters (Fully automatic blood cell separators)
Consumables (culture media)
Cell counters
Injectable solutions (pharmaceutical companies)

Our business domain
(Development of manufacturing methods and contracted manufacturing of regenerative medicine products, and development and sale of consumable supplies)
## Initiatives for FY2018

### Regenerative Medicine
- Laid the business foundations and began developing manufacturing methods and contracted manufacturing of regenerative medicine products (entered contracted manufacturing agreements with SanBio Co., Ltd. and Daiichi Sankyo Co., Ltd.).
- Proceed with project launch in Japan (open contract manufacturing facility in Yokohama, which started business in April 2018)
- Fully launch contract cell manufacturing with SanBio Co., Ltd. and Daiichi Sankyo Co., Ltd.
- Additionally establish a contract cell manufacturing facility in Yokohama for receiving new orders
- Establish a system for PMI (Post-merger Integration) process for generating a synergy effect
- Complete grand design towards global expansion
- Start developing manufacturing methods and contracted manufacturing of regenerative medicine products in Japan

### Immuno- and Genetic Diagnostics
- Obtain a business foundation for diagnostic reagents through M&A (turning Kyowa Medex Co., Ltd. into our consolidated subsidiary)
- Laid the business foundations and began developing manufacturing methods and contracted manufacturing of regenerative medicine products (entered contracted manufacturing agreements with SanBio Co., Ltd. and Daiichi Sankyo Co., Ltd.).
- Continue efforts to establish a business foundation for genetic diagnostic reagents
- Establish a system for immunodiagnostic and POCT diagnostic reagents
- Establish a PMI (Post-merger Integration) process for generating a synergy effect
- Complete grand design towards global expansion
- Start developing manufacturing methods and contracted manufacturing of regenerative medicine products in Japan

### Goals for the 16-year Strategy
- Become a global player in the development of manufacturing methods and contracted manufacturing of regenerative medicine products
- Commercialize regenerative medicine consumables
- Develop profitable businesses in the growing markets, such as immuno-/genetic diagnostics and POCT

### Establish business platforms for immune, POCT and genetic diagnostics
Now that Kyowa Medex is our consolidated subsidiary, we have built a foundation for our domestic projects. In addition to mutual supplementation of product lineups, Hitachi Chemical’s technological strengths and sales network in the United States will be utilized in an effort to explore markets for immune, POCT and molecular diagnosis, which concern high-value added diagnostic reagents. Kyowa Medex will function as the core of the Hitachi Chemical Group’s diagnostic reagents. Also, in partnership with the HCA R&D Center, a facility characterized by its geographic advantage in the United States, we will build a system for generating a synergy effect when launching new themes in molecular diagnostics, immunodiagnosis and POCT.

### Product examples

#### Diagnostics and Instruments of Kyowa Medex Co., Ltd.

**Reagents for clinical chemistry analyzers**
These products are test reagents used in analyzers of biological sample material such as human serum, plasma and urine. Kyowa Medex offers a product lineup that addresses a wide range of testing needs, including measuring LDL cholesterol and neutral fat levels for diagnosing dyslipidemia and blood sugar levels and hemoglobin A1c used to diagnose diabetes.

**Immunological test reagents and analyzers**
These products are reagents and analyzers that utilize antibody immune responses to analyze biological materials such as human serum, plasma and urine. Measurements include tumor markers, cardiovascular risk markers, infection-related markers, hormones, markers of bone turnover, and faecal occult blood (bowel cancer screening).

**Multi-allergen simultaneous test (MAST Immuno Systems)**
This product measures the levels of allergen-specific IgE antibodies in human serum, which helps physicians identify the allergens responsible for the patients’ symptoms. The system simultaneously measures 48 IgE antibodies including antibodies to pollen and food allergens, enabling the collection of a large amount of data in a single test.

**POCT (Point of Care Testing) products**
These are products that enable test results to be obtained quickly and simply in a variety of healthcare settings. Products include A1CiGear Quick K for glycohemoglobin, UrinoSL for urine analysis, Tear Total IgE Detection Kit for allergic conjunctivitis and Quick Chaser Flu A, B for influenza virus.

### Outputs and Strategies of the 2018 Medium-term Management Plan

#### FY2017 Progress

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Goals for the 16-year Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laid the business foundations and began developing manufacturing methods and contracted manufacturing of regenerative medicine products (entered contracted manufacturing agreements with SanBio Co., Ltd. and Daiichi Sankyo Co., Ltd.).</td>
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</tr>
<tr>
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<td>Commercialize regenerative medicine consumables</td>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Start developing manufacturing methods and contracted manufacturing of regenerative medicine products in Japan</td>
<td></td>
</tr>
</tbody>
</table>

### HbA1c
A form of hemoglobin that binds to glucose. Similar to blood glucose level, it is used in the diagnosis of diabetes.

### HbAtc
Hemoglobin Atc
A form of hemoglobin that binds to glucose. Similar to blood glucose level, it is used in the diagnosis of diabetes.
Environment

To achieve a sustainable society in harmony with the global environment, Hitachi Chemical will globally promote the reduction of the environmental burden in its business activities, products and services and the solution of environmental issues as typified by climate change.

For detailed information on environmental management, refer to Hitachi Chemical’s website About Hitachi Chemical » CSR » Environmental Report.

Engaging in Environmental Management

Fiscal Year 2017 Initiatives

Regarding harmony with the global environment as one of the top priority issues of management, Hitachi Chemical is promoting a range of initiatives to reduce the environmental burden associated with its business activities and the environmental burden of its products and services through their life cycle by establishing its own policies and action plans on the premise of Hitachi’s Environmental Vision, which is a framework common to the Hitachi Group, that consists of “Low-carbon Society,” “Resource-efficient Society,” “Harmonized Society with Nature” and “Hitachi Environmental Innovation 2050.”

We have established numerical targets for CO₂ emissions in the 2018 Medium-term Management Plan. We have achieved the targets for fiscal year 2017 as a result of working as one to reduce greenhouse gas emissions through the Carbon Management Strategy by which we engage in management by assessing the financial impact of CO₂ emissions on Hitachi Chemical from a management perspective.

In its products and services, Hitachi Chemical promotes the sustainable engineering that will create environmentally friendly products and technologies through the integration and fusion of core technologies. We are creating products and businesses that can contribute to reducing the environmental burden in the value chain while meeting customers’ needs. In fiscal year 2017, the revenue of Environmental Conscious Products accounted for 58% of total revenue.

In addition, we are also calculating the greenhouse gas emissions of the 18 major product families through the product life cycle based on LCA (Life Cycle Assessment) since fiscal year 2016. The LCA has been completed for 12 product families until fiscal year 2017.

Plan for Fiscal Year 2018

Our Environmental Conservation Action Plan for 2016 to 2018 includes a total of 12 action plans in the category of “High-standard Eco-factories and offices,” “Provision of next-generation products and services,” and “Promotion of environmental management.”

In fiscal year 2018, the final year of the Action Plan, we will aim to achieve the targets for all items and proceed with the preparations for establishing the next action plan so that we will be able to work to further reduce the environmental burden through concerted efforts as the Group in the next action plan.

Environmental Conservation Action Plan for 2016 to 2018 (some of the main items)

<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
<th>Objective</th>
<th>Description</th>
<th>FY2017</th>
<th>FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent global warming</td>
<td>Improve energy consumed per production unit from FY2005 base year</td>
<td>Contribute to measures against global warming by improving the efficiency of energy use and promoting the reduction of CO₂ emissions and activities to suppress emissions</td>
<td>13.3%</td>
<td>20.0%</td>
<td></td>
</tr>
<tr>
<td>Use resources effectively</td>
<td>Improve water usage per production unit from FY2005 base year</td>
<td>To resolve the water scarcity problem, which is a worldwide concern, promote efficient water usage by strengthening water risk management</td>
<td>26.8%</td>
<td>28.8%</td>
<td></td>
</tr>
<tr>
<td>Manage chemical substances</td>
<td>Improve chemical substances released into atmosphere per production unit from FY2006 base year</td>
<td>Reduce atmospheric emissions of chemical substances such as volatile organic compounds (VOCs) that have an impact on the human body and ecosystem by improving processes and providing alternative solutions</td>
<td>41.7%</td>
<td>44.9%</td>
<td></td>
</tr>
</tbody>
</table>


*2: Major business sites (Global)
*3: Major business sites (Japan only)
To deliver “wonders” that exceed the expectations of customers and society, Hitachi Chemical emphasizes active dialogue and communication with stakeholders and strives for sincere and honest corporate management throughout the value chain.

For detailed information on Society, refer to Hitachi Chemical’s website ▶ About Hitachi Chemical ▶ CSR ▶ Social Report.

Diversity and Inclusion

**Fiscal Year 2017 Initiatives**

By positioning diversity and inclusion as one of its management strategies for securing a competitive advantage, Hitachi Chemical is working on a range of initiatives from the perspectives of management attitude, the environment, awareness and institution by establishing a specialized organization to promote diversity and inclusion in its head office. The management team takes on the role of promoting diversity and inclusion in a tangible manner with the Executive Officers serving as the owners of the Diversity Promotion Project under the themes of change in mindset, foreign employees, LGBT, nursing care and disability, and the Outside Directors speaking about the importance of diversity at the corporate governance workshop for the employees.

In the 2018 Medium-term Management Plan, we have set a numerical target for the proportion of female managerial positions (non-consolidated basis, under the age of 45), and it was 7.9% in fiscal year 2017. We have also made a plan for developing female employees for each department to build the pipeline of female employees in career-track positions and monitor it by setting a target for the hiring rate and the resignation rate of new female engineering graduates, etc. As a result of a range of initiatives, awareness has been changing steadily among both female employees and managers, as seen in the rising scores related to the orientation toward female managers in career-track positions and the cultivation of female managers in a diversity attitude survey. Hitachi Chemical has also become the company with the highest ratio of patents in which female inventors are included among the 100 Japanese companies with the largest number of international patent applications in 2017 (WIPO survey).

In addition, Hitachi Chemical has also set World Class Professional (WCP) as its vision for human resource development. It is indispensable to improve one’s skills in dialogue to become a world-class professional. This is why we promote the utilization of the KT method and the strengthening of English-language skills on the Group-wide basis and conduct the Global Coaching Program. In fiscal year 2017, a total of 927 people participated in the Program from 12 countries and regions.

**Plan for Fiscal Year 2018**

Hitachi Chemical will continue to set specific numerical targets for diversity and inclusion and publish them inside and outside the Company so that each employee will correctly understand diversity and inclusion as a management strategy and change their behavior as a result. We will continue to execute the PDCA cycle by quantitatively measuring the impact of each initiative.
Governance

Hitachi Chemical will carry out management in the interests of shareholders and all other stakeholders by establishing the Hitachi Chemical Corporate Governance Guidelines in order to achieve sustainable growth and increase corporate value.

Reinforcing Governance

Measures to Strengthen Corporate Governance Structures

In order to achieve a high level of agility, objectivity and transparency in its management, Hitachi Chemical adopts the “company with a nomination committee and other committees” structure that separates executive and supervisory functions. To maximize the advantages of this structure, Hitachi Chemical established an executive framework which enables timely and firm decision-making; it also set up three Board of Directors’ committees—Nomination, Compensation and Audit Committees—with the majority of the members of each committee being Outside Directors, to exercise appropriate supervision over management.

Furthermore, Hitachi Chemical has ensured diversity among Directors and reflect in management opinions capitalizing on their respective extensive experience and knowledge. We are also reinforcing operational aspects of the Board of Directors through means such as the introduction of a system for evaluating effectiveness. Additionally, in order to attain sustainable growth and increase corporate value, we have established the Hitachi Chemical Corporate Governance Guidelines and prepared the Corporate Governance Report for submission to the Tokyo Stock Exchange.

For the purpose of bolstering oversight functions over Group companies, we dispatch Directors and Auditors to Group companies as necessary and conduct periodic internal audits of business sites and Group companies.

Changes in corporate governance structures

<table>
<thead>
<tr>
<th>Changes in corporate governance structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Japan’s Stewardship Code announced</td>
</tr>
<tr>
<td>2002 Establishment of structure of company with committees</td>
</tr>
<tr>
<td>2006 Companies Act enacted</td>
</tr>
<tr>
<td>2015 Revised Companies Act comes into effect Corporate Governance Code introduced</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2010</td>
</tr>
</tbody>
</table>

- **Company with a nomination committee and other committees**
  - Starting in FY2003
- **Female Directors appointed**
  - Starting in FY2013
- **Foreign Directors appointed**
  - Starting in FY2014
- **Board of Directors’ evaluations conducted**
  - Starting in FY2015

Corporate governance structure (As of the end of June 2018)

For detailed information on corporate governance, refer to Hitachi Chemical’s website About Hitachi Chemical Corporate Profile Corporate Governance.

Composition of the Board of Directors (As of the end of June 2017)

- Percentage of non-executive Directors: 80% (8 out of 10 Directors)
  - * Chairman of the Board does not concurrently serve as an Executive Officer.
- Percentage of Outside Directors: 50% (5 out of 10 Directors)
- Percentage of Outside Directors in Nomination, Compensation, and Audit Committees:
  - Nomination Committee: 60% (3 of 5 members)
  - Compensation Committee: 60% (3 of 5 members)
  - Audit Committee: 83% (5 of 6 members)

* Changed name to EY ShinNihon LLC from July 1, 2018.
Ensuring the Effectiveness of Audits by the Audit Committee

The Audit Committee consists of six Directors including five Independent Outside Directors, under whom three staff members in positions equivalent or subordinate to general managers of departments are assigned. The Audit Committee holds a meeting every month and determines audit policies, audit execution plans, etc. Also, together with Independent Outside Directors, it conducts auditing activities including interviewing Executive Officers, attending important internal meetings and performing audits at the head office, division, business sites and Group companies. In fiscal year 2017, audits were performed at five business sites, three regional and branch offices and 29 Group companies.

We are also ensuring the effectiveness of audits through collaboration secured by frequent meetings and interviews with the external Independent Auditor and the internal audit section.
Evaluation of Effectiveness of the Board of Directors

In accordance with the Hitachi Chemical Corporate Governance Guidelines, Hitachi Chemical has been evaluating the effectiveness of the Board of Directors every year in order to ensure the effectiveness of the Board’s management oversight function and decision-making function. Based on the evaluation results, the Company takes measures to improve governance every year according to the results of the evaluation of effectiveness.

As a result of undertaking a self-evaluation using a questionnaire survey in the evaluation of effectiveness of the Board of Directors in fiscal year 2016, “Development of a successor to the President and CEO” and “Deliberation of important strategies” were cited as challenges. In light of these challenges, we promoted new initiatives including holding the Off-site Meeting at which the Directors and Executive Officers deliberated important strategies in December 2017.

In fiscal year 2017, we also introduced an interview, in addition to a questionnaire, to evaluate the effectiveness of the Board of Directors that consisted of Directors who were elected at the Annual General Shareholders Meeting held in June 2017. With respect to the effectiveness, the result showed that it was “Generally effective.” Given that some issues were also identified in the evaluation, we will make efforts to improve the effectiveness in fiscal year 2018 based on the evaluation of effectiveness in fiscal year 2017.

Overview of the Evaluation of Effectiveness of the Board of Directors in FY2017

Overview

We conducted a self-evaluation of all 11 Directors using a questionnaire survey as in the past in cooperation with outside advisors. We then held interviews with seven Directors (one Chairman, five Outside Directors and one President and CEO) based on the results of the questionnaire. Based on the analytical findings in the responses, we held discussions at the Board of Directors Meeting in May 2018.

Results of Analysis and Evaluation

1. Given that positive evaluations of effectiveness accounted for more than half (61%) while negative evaluations made up a small amount (7%) in the results of the questionnaire, we have determined that the effectiveness of the Board of Directors has been generally secured (also improved from the evaluation last year (I agree (55%), I don’t agree (11%)).

2. As a result of the interviews, it was established that the following are key issues to address in the future: “Structure of the Board of Directors based on the direction of medium- to long-term management strategies,” “Strengthening of monitoring over business operation and governance under the business division profit system” and “Implementation of more effective audit activities by the Audit Committee.”

Given the results above, we have confirmed that the Board of Directors of the Company fulfills the roles and duties stipulated in the Guidelines for the sustainable growth of the Group and the enhancement of its corporate value and evaluates that the Board of Directors was “generally effective” in fiscal year 2017 as well.

Efforts to Improve Effectiveness

As a result of performing the evaluation of effectiveness, Directors expressed numerous constructive opinions about issues and measures for increasing effectiveness.

The Company will ensure the effectiveness of the operation method and the management oversight function and decision-making function of the Board of Directors and continue to achieve a high level of agility, objectivity and transparency in its management by revising the Guidelines, etc. by reference to the constructive opinions expressed by the Directors.
Implementation of Plan to Develop Successors

Hitachi Chemical is making efforts to elaborate “Leaders to Win” by securing the management leaders that are necessary for achieving its growth strategies globally on a group-wide basis.

With respect to the excavation and selection of candidates for successors by the Executive Officers, taking diversity into consideration along with plans for their development, the Nominating Committee holds discussions and undertakes confirmation based on the Hitachi Chemical Corporate Governance Guidelines, and the Board of Directors exercises the continuous oversight of the overall efforts by obtaining advice from the Nominating Committee.

- **Roles of the Nominating Committee**
  - Discussion of human resources requirements for the President and CEO
  - Confirmation of the profile and development policy of candidates
  - Confirmation of the individual development of candidates for the President and CEO, and the status of their assignment

- **Roles of the Board of Directors**
  - Discussion of human resources requirements for the President and CEO and the development policy of candidates <consultation from the Nominating Committee>
  - Confirmation of the individual development of candidates for the President and CEO, and the status of their assignment <report from the Nominating Committee>
  - Determination of appointment standards for Executive Officer
  - Overall process management and progress management of candidates for Executive Officer

Appointment of Directors and Executive Officers and Independence of Outside Directors

With regard to the reasons for selecting Directors, the Nomination Committee nominates candidates and eligible persons based on its standards, and the General Shareholders’ Meeting makes decisions by resolution. Decisions regarding the appointment of Executive Officers are made by the Board of Directors based on standards.

Independent Outside Directors are independent from Hitachi Chemical and ask questions, present opinions and give advice, etc., as appropriate from the perspective of ensuring the lawfulness, appropriateness and efficiency of management and raising corporate value based on their extensive experience and knowledge at the Board of Directors Meeting, etc. The Nomination Committee determines the independence of Outside Directors based on its standards for determining their independence.

Directors’ and Executive Officers’ Compensation

The compensation of Directors and Executive Officers is determined in accordance with policies for recruiting diverse and exceptional human resources, in order to provide management motivation to pursue higher corporate value not just over the short term, but also over the medium to long term. The Compensation Committee discusses and determines compensation of Directors and Executive Officers based on the Policy for Determination of Directors’ and Executive Officers’ Compensation on an annual basis.

- **Directors’ and Executive Officers’ Compensation (FY2017)**
  - **Type of management position**
    - Directors (excluding Outside Directors)
    - Executive Officers
    - Outside Directors
  - **Total compensation (Millions of yen)**
    - Directors: 114
    - Executive Officers: 632
    - Outside Directors: 81
  - **Compensation by category (Millions of yen)**
    - Monthly base salary
    - Performance-based reward and term-end bonus
    - Directors: Monthly base salary 101, Performance-based reward and term-end bonus 13
    - Executive Officers: Monthly base salary 414, Performance-based reward and term-end bonus 218
    - Outside Directors: Monthly base salary 72, Performance-based reward and term-end bonus 9
  - **Number of eligible persons**
    - Directors (excluding Outside Directors): 8
    - Executive Officers: 15
    - Outside Directors: 6
Shareholding Status

Hitachi Chemical has decided to hold shares of other companies if the Company has determined based on the Hitachi Chemical Corporate Governance Guidelines that there is a reason for holding shares from the standpoint of business operation and that the continuous holding will contribute to the enhancement of corporate value. We do not hold shares of other companies merely for investment purposes. We hold 39 stocks as of the end of June 2018, and their total amount on the balance sheet is ¥9,804 million. Whether or not we can acquire shares of other companies is determined by the Executive Officers or Board of Directors, which is the decision-making body, in accordance with the Standards for Submissions to the Board of Directors.

We also regularly check the aim and reasonability of important cross-held shares through deliberations at the Executive Officers’ Meetings and report the checking results to the Board of Directors.

Relationship with Parent Company and Ensuring Equality Among Shareholders

As a member of the Hitachi Group, Hitachi Chemical continues to maintain cooperative relationships with Hitachi, Ltd. and other Hitachi Group companies through business activities such as management information exchange, R&D, and sharing product supply, and effectively uses management resources including the Hitachi brand strength to increase its corporate value. In order to ensure independence in business operations and transactions, we also pay due consideration to ensure that Directors, who concurrently serve as Director of the parent company or its Group company, constitute minority of the Board of Directors, as well as developing measures and an environment to ensure the rights of shareholders and equality among them, including making it our policy to give consideration to minority shareholders.

Thorough Practicing of Compliance

We define compliance as more than just strict adherence to laws and regulations, and understand it to include observance of industry standards as well as employees’ routine activities to comply with and enhance corporate ethics and social norms. Compliance is positioned at the heart of Hitachi Chemical’s CSR activities. We distribute the Hitachi Chemical Group Codes of Conduct Handbook—an easy-to-understand explanation of the Codes of Conduct, which serve as a guide for conduct—to all employees and require them to periodically reread and comply with the Handbook. We have also specified every October as Corporate Ethics Month, in which a message from the top management translated in 11 languages is conveyed for all the Group employees, and a wide range of awareness-raising activities are carried out.

We conduct training and audits to reinforce compliance. In fiscal year 2017, the Risk Management Center provided trainings 113 times, in which 4,491 employees participated. Audits were conducted with respect to 2 companies in Japan and 11 overseas companies, and guidance and education were provided to improve compliance management systems. Plans for fiscal year 2018 include audits of 12 Hitachi Chemical business sites in Japan and overseas.

We have also set up the “Global Hotline,” a whistleblowing system in which reports can be made in three languages (Japanese, English and Chinese), with points of contact established inside Hitachi Chemical as well as outside (at a law firm). In fiscal year 2017, 32 inquiries/reports were received including those from overseas, none of which would have led to serious breach of laws or regulations.
Strengthening of Risk Management

Hitachi Chemical requires its officers and employees to keep an eye on various risks and act by being mindful of preventing such risks from arising. In regards to risks that may have a particularly substantial impact on management, we have established countermeasures by making their financial impact visible in the form of a risk assessment table based on a scenario specifying the types, responding division, scale of damage and frequency of occurrence through risk assessment. These are reported to the Executive Officers’ Meeting and the Board of Directors and are also described as “Business-related Risks” in the Securities Reports. Having established the Risk Management Center as an independent organization that reports directly to the President and CEO, we are making efforts to further improve governance systems from the viewpoint of compliance, business continuity, export controls and internal audits.

### Risk Management Process

- **Monitoring**
  - Internal audits and routine self-audits

- **Identification of risks**
  - Identification of major risks and division-specific risks

- **Evaluation of risks**
  - Summary of risks and evaluation of impact

- **Risk financing**
  - Expansion of internal reserves, insurance policies

- **Risk control**
  - Institutionalization and organization (response by each division)
  - Education, disciplinary actions, drills

#### Main Risks and Countermeasures

<table>
<thead>
<tr>
<th>Category</th>
<th>Main Risks</th>
<th>Countermeasures</th>
</tr>
</thead>
</table>
| Health & safety continuity   | Damage caused by earthquakes and tsunamis, Infection with diseases, pandemics | • Develop manuals on initial response that varies from business site to business site, formulate BCP and conduct drills  
  • Formulate BCP against worldwide new-strain influenza, make alternate production arrangements, support preparedness of overseas Group companies |
| Stable revenue               | Recessions, fall in demand, intensified competition, Failure to detect product defects, leaks to outside | • Formulate medium/long-term strategies, dynamic business operations by each business division  
  • Application to quality management systems, stringently enforce manufacturing processes |
| Social responsibility        | Unfair trading (bidrigging, bribery), Leakage of customer/client information | • Promote audits, education, various compliance programs  
  • Thoroughly manage information through the development of rules and self-auditing, raise awareness by e-learning  
  • Evaluate Information security and execute measures to improve Information security |

### Business Continuity Management

In order to meet the expectations of customers and society, we are seeking to improve the standard of business continuity management through such efforts as periodic business continuity plan (BCP) simulation drill. In fiscal year 2017, a simulated emergency drill was conducted at Hitachi Chemical’s Yamazaki Works to respond to a direct-hit earthquake and a worldwide new-strain influenza pandemic scenario. The learnings from these exercises were reported to the Executive Officers’ Meeting, shared among the entire management including Executive Officers and utilized to improve next year’s BCP.

#### Past Cartel Acts related to the Capacitor Business

Since 2014, the Company has been investigated by the competition authorities in several countries and regions regarding its past cartel acts related to the capacitor business of the Group, and it was ordered by the European Commission to pay financial penalties in March 2018 because the Company had violated the European competition law. In the United States, civil suits to seek compensation for damages because the Company was involved in a cartel and had violated the US anti-trust law were filed by plaintiffs who had purchased capacitors, and the Company concluded a settlement agreement to pay settlement compensation in fiscal year 2017.

We offer our heartfelt apologies to all the affected parties, including our shareholders, for the concern and inconvenience caused. The Group has deep remorse on its involvement in the cartel acts and will continue to fully enforce measures to prevent recurrence and regain our trust by enhancing training and governance in the Group.

* Please refer to the page 12 for more information on inappropriate entries of figures in inspection reports of some products among lead-acid batteries for industrial use.
### Board of Directors and Executive Officers

(As of the end of June 2018)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Reasons for selection</th>
<th>Significant concurrently held positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazuyuki Tanaka</td>
<td>Chairman of the Board</td>
<td>Mr. Tanaka has a wealth of experience and excellent management capabilities as a management executive of Hitachi Chemical and Hitachi Group companies. He is expected to enhance the Board of Directors’ decision-making functions by sharing information as a member of the Board.</td>
<td>Director &amp; Audit Committee Member of Hitachi, Ltd.</td>
</tr>
<tr>
<td>Takemoto Oto</td>
<td>Outside Director</td>
<td>Mr. Oto is expected to enhance the Board of Directors’ functions by reflecting, in the management of the Hitachi Chemical Group from a standpoint independent from the Hitachi Group, his extensive expertise in personnel and general affairs and the broad insight he has gained as a management executive as well as outside auditor of other companies.</td>
<td>Outside Director (Audit &amp; Supervisory Committee Member) of A.D.Works. Co., Ltd., Outside Corporate Auditor of Imperial Hotel, Ltd.</td>
</tr>
<tr>
<td>George Olcott</td>
<td>Outside Director</td>
<td>Dr. Olcott is expected to enhance the Board of Directors’ functions by reflecting, in the management of the Hitachi Chemical Group from a standpoint independent from the Hitachi Group, his wealth of experience and broad insight as an academic expert and management executive.</td>
<td>Guest Professor, Faculty of Business and Commerce, Keio University Outside Director of The Dai-ichi Life Insurance Co., Ltd., Outside Director of DENS Corporation, Non-executive Director of JPMorgan Japanese Investment Trust plc</td>
</tr>
<tr>
<td>Masayuki Sarumaru</td>
<td>Outside Director</td>
<td>Mr. Sarumaru is expected to enhance the Board of Directors’ functions by reflecting, in the management of the Hitachi Chemical Group from a standpoint independent from the Hitachi Group, his wealth of experience and broad insight as a management executive of an international enterprise.</td>
<td>Chairman of YKK Corporation</td>
</tr>
<tr>
<td>Richard Dyck</td>
<td>Outside Director</td>
<td>Dr. Dyck is expected to enhance the Board of Directors’ functions by reflecting, in the management of the Hitachi Chemical Group from a standpoint independent from the Hitachi Group, his wealth of knowledge and experience in semiconductors and the broad insight he has gained as a management executive.</td>
<td>Representative Director of TSK K.K.</td>
</tr>
</tbody>
</table>

For the list of the Executive Officers, please refer to Hitachi Chemical’s website ▶️ About Hitachi Chemical ▶️ Corporate Profile ▶️ Board of Directors & Executive Officers. For the brief background of Directors, please refer to the “Notice of Annual General Shareholders’ Meeting,” Hitachi Chemical’s website ▶️ Investor Relations ▶️ Stock Information ▶️ Notice of Annual General Shareholders’ Meeting.
## Top Message

### At a Glance

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<th>Significant concurrently held positions</th>
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<th>Compensation Committee</th>
<th>Audit Committee</th>
<th>Independent Director</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chieko Matsuda</td>
<td>Outside Director</td>
<td>Dr. Matsuda is expected to enhance the Board of Directors’ functions by reflecting, in the management of the Hitachi Chemical Group from a standpoint independent from the Hitachi Group, her extensive expertise in business economics and accounting/finance and the broad insight she has gained as an university professor and management executive.</td>
<td>Professor, Graduate School of Management, Tokyo Metropolitan University, Professor, Faculty of Economics and Business Administration, Tokyo Metropolitan University, Outside Corporate Auditor of Kirin Holdings Co., Ltd.Outside Director of SATO HOLDINGS CORPORATION, Outside Director of Foster Electric Co., Ltd.</td>
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<tr>
<td>Yoshihito Kitamatsu</td>
<td>Director</td>
<td>Mr. Kitamatsu has a wealth of operational experience and expertise in accounting and finance. He is expected to enhance the Board of Directors’ decision-making functions by sharing information as a member of the Board.</td>
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<tr>
<td>Yoshihiro Nomura*</td>
<td>Director</td>
<td>Mr. Nomura has broad business experience and knowledge, having been engaged in the management of Hitachi Chemical’s core businesses such as advanced performance materials business and energy storage &amp; automotive products business as well as overseas Group companies. He is expected to enhance the Board of Directors’ decision-making functions by sharing information as a member of the Board.</td>
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</tr>
<tr>
<td>Hisashi Maruyama*</td>
<td>Director</td>
<td>Mr. Maruyama has a wealth of experience, proven track record and excellent management execution capabilities, having been engaged in the management of Hitachi Chemical and its Group companies. He is expected to enhance the Board of Directors’ decision-making functions by sharing information as a member of the Board.</td>
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<tr>
<td>Koji Tanaka</td>
<td>Director</td>
<td>Mr. Tanaka has a wealth of experience and broad insight as a management executive, having been engaged in management in a broad ranges of areas including the electricity business and the life science business. He is expected to enhance the Board of Directors’ functions by reflecting them in the management of the Group from a broad perspective.</td>
<td>Advisor of Hitachi, Ltd., Chairman of the Board and Outside Director of Hitachi Transport System, Ltd. and Director of Hitachi Construction Machinery Co., Ltd.</td>
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*Concurrently serving as Executive Officer  Committee Chairman
SRI Ratings

MSCI
2018 Constituent
MSCI Japan ESG
Select Leaders Index

FTSE4Good

MSCI
2018 Constituent
MSCI Japan Empowering
Women Index (WIN)

FTSE Blossom
Japan

MS-SRI
Member of Global Sustainable Growth
2015

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Vegetable oil INK
for waterless printing
Non VOC INK Version 2

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