Realizing THE KAITEKI COMPANY with a truly global recognition

Modern society is facing a variety of social challenges such as climate change, water shortages, resources and energy problems, and mounting medical care costs accompanying aging populations. On the other hand, the pace at which science and technology are developing is accelerating in fields such as information and communications technology (ICT), artificial intelligence (AI), robotics, mobility, medical care and health, and such advances harbor the potential to lead to the creation of major innovations.

In light of this environment, we at Mitsubishi Chemical Holdings (MCHC) Group view it as our mission to continue to provide solutions to these social challenges by mobilizing the group’s innovation strengths inside and outside Japan. In order to continue to be a company that is trusted by its stakeholders and also contributes to the sustainable development of people, society and the Earth through corporate activities, in partnership with our approximately 70,000 employees we conduct broad-ranging and global operations in over 30 countries and regions in the three domains of Performance Products, Industrial Materials and Health Care, and on the basis of our value criteria of “Sustainability,” “Health” and “Comfort.”

Our corporate slogan of “KAITEKI Value for Tomorrow” expresses our powerful will and resolve to seize the initiative by engaging in “realizing KAITEKI,” a sustainable condition which is comfortable for people, society and the Earth.

In order to meet the responsibility that we have been entrusted with by our stakeholders, we will make a determined and strenuous effort to consolidate the Group’s comprehensive strengths, maximize corporate value, and be THE KAITEKI COMPANY with a truly global recognition.

Hitoshi Ochi
Representative Corporate Executive Officer, President & CEO
Through our three business domains, Performance Products, Industrial Materials, and Health Care, we offer a wide range of solutions, based on the values of sustainability, health, and comfort.

**Performance Products**
We contribute to realize a sustainable society by providing differentiated, high-performance solutions utilizing the Group’s wide range of products and technologies.

**Industrial Materials**
Our products and technologies support a variety of industries and societies. We are proceeding with the diversification of raw materials, including renewable resources and strengthening our business structures.

**Health Care**
Capitalizing on the Group’s comprehensive capabilities and network, we develop businesses for pharmaceuticals, diagnostic reagents and instruments, clinical testing, healthy support service, support for new drug development, active pharmaceutical ingredients and intermediates, pharmaceutical formulation materials such as capsules, pharmaceutical equipment.

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Focus markets / businesses

1. **Automobile, Aircraft (Mobility)**
   - Lightweight member
   - Material for environmental application

2. **Environment, Energy**
   - LIB materials
   - Water treatment
   - Separation/purification
   - Agri solutions
   - Infrastructure

3. **IT, Electronics, Displays**
   - Displays
   - Semiconductor materials (Gas, and others)
   - Cleaning agent, cleaning services
   - Thermal management materials

4. **Medical, Food, Bio Products**
   - Implant materials, infusion bags, capsules
   - Sugar ester formulation
   - Lactic acid bacteria *LACRIS*

5. **Packaging, Labels, Films**
   - Barrier application
   - High-performance films

6. **Healthcare**
   - Ethical pharmaceuticals
   - Regenerative medicine
   - Healthcare, medical ICT
What We Do

We contribute to realize a sustainable society by providing differentiated, high-performance solutions utilizing the Group’s wide range of products and technologies.

Performance Products

Main Products

Performance polymers
A broad array of products, such as olefin based thermoplastic elastomers, PVC compounds and bio compounds, which enable customer innovation in applications ranging from medical and industrial use to daily necessities.

Engineering polymers
With the increasing demand for various applications including automobiles and electronics, globally expanding the business by integrating our proprietary manufacturing process technologies with polymer design technologies and compound technologies.

Sustainable resources
Biobased engineering plastic “DURABIO(TM)”, with excellent transparency, optical properties, and weatherability.
Biobased, biodegradable and renewable polymer “BioPBS™”, which is compostable to H₂O and CO₂ by microbes.

Performance chemicals
Chemicals that provide solutions to fields such as coatings, electronic materials, and health care based on polymer design and coating technologies.

Performance materials
Providing products that fulfill diverse needs by combining our original materials and technologies such as organic chemistry based on epoxies and acrylics, and silicon-based inorganic chemistry.

Food ingredients
Providing high level solutions to the food industry with a diverse product lineup, under the motto “Tasty, Healthy & Convenient”.

Polyester film
Global expansion in Japan, U.S., Germany, China and Indonesia for a wide array of applications including FPD, electric and electronic parts, industrial use, and packaging.

Poly-vinyl alcohol film for LCD
Special film for polarizing plate that is indispensable for LCD panels to display image.

High performance films
Expand uses in medical & food packaging by high functional films, such as multilayer co-extruded and gas barrier films etc.

Water treatment system & services
Promoting broad ranging projects worldwide, from component sales to system solutions, as a global leading company in water treatment.
What We Do

**Engineering plastic products**
Global leader of engineering plastic stock shapes

With promoting metal replacement by high performance engineering plastic, we provide solutions, such as lighter weight, improvement of productivity, for industrial market.

**Carbon fiber & composite materials**
Expand uses in industries and automobiles by maximizing the capabilities of carbon fiber with composite materials and processing technologies

**Alumina fibers**
With excellent heat insulation, durability performance, and cushioning properties achieved by our world leading technologies, used globally in automotive exhaust gas treatment devices and heating furnaces in steel industry

**Lithium ion battery materials**
We provide formulated electrolyte and anode materials, which are key materials. Formulated electrolyte for automotive batteries are sold globally.

**Energy transduction materials**
We provide LED phosphors and products of X-ray scintillators, which utilize proprietary technologies, globally.

**Others**
- Imaging materials
- OLED materials
- Semiconductor materials & services
- Groundwater Membrane Filtration System
- Artificial spa generator
- Agricultural materials
- Industrial materials, construction and civil engineering materials
- Fibers & Textiles
- Golf shaft
- Composite materials etc.

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**Main Products**

**Industrial Materials**

Our products and technologies support a variety of industries and societies. We are proceeding with the diversification of raw materials, including renewable resources and strengthening our business structures.

**Coke**
Crafted technologies supporting core industries
World-class production capacity as a merchant coke producer

**Needle coke/Tar**
World-class quality through integrated production

**Polyolefin**
High-function, high-quality lineups of products based on proprietary catalyst and process technologies
Supply for variety of grades applying to automotive, medical, food packaging etc.

**Industrial gases**
As industrial gas professionals, we offer powerful support to various industries by providing industrial gases safely in the most appropriate way.

**Others**
- Ethylene Oxide / ethanol
- Octanol / normal butanol
- 1,4-butanediol / γ-butyrolactone
- Acrylonitrile / acrylonitrile derivative etc.
What We Do

Main Products

Health Care

Capitalizing on the Group’s comprehensive capabilities and network, we develop businesses for pharmaceuticals, diagnostic reagents and instruments, clinical testing, healthy support service, support for new drug development, active pharmaceutical ingredients and intermediates, pharmaceutical formulation materials such as capsules, pharmaceutical equipment.

Pharmaceuticals
Helping improve quality of life for numerous patients worldwide by developing pharmaceuticals that address unmet medical needs

<Main Products>
Remicade  Anti-TNFα monoclonal antibody
Simponi  Anti-TNFα monoclonal antibody
Tenelia  Type 2 diabetes treatment
Canaglu  Type 2 diabetes treatment
Lexapro  Anti-depressant treatment
Rupafin  Allergy treatment

Vaccines
Periodic vaccines for children and preventive vaccines for influenza and other infectious diseases

Clinical testing, diagnostic reagents and support for drug development
Contracted clinical testing, support for health checkups, food inspections, development, manufacturing and distribution of diagnostic reagents and instruments, non-clinical studies, clinical trials, environmental risk evaluation, etc.

Doping testing
Analysis of doping controls for sports under the World Anti-Doping Code by Anti-Doping Laboratory of LSI Medience, Japan’s only WADA (World Anti-Doping Agency) accredited laboratory

Active pharmaceutical ingredients and intermediates
Providing health care products, including pharmaceutical ingredients and intermediates for cost-competitive, highly safe pharmaceutical products

Capsules and pharmaceutical equipment
Providing high-quality, high-function hard capsules along with designing, developing and manufacturing pharmaceutical equipment and offering related technical services

Jibun Karada Club™
A portal site that supports health self-checks from various aspects including health condition checkups using a blood self-sampling kit, exercise, diet, nutrition and beauty

Others
- OTC products
- Food hygiene tests
- Safety tests and research for chemical products
- Biomarker research
- Advanced medication etc.
Global Network

Number of Subsidiaries and Affiliates

Broad geographical coverage

Total 708

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>91</td>
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<tr>
<td>Japan</td>
<td>318</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>218</td>
</tr>
<tr>
<td>North America</td>
<td>72</td>
</tr>
<tr>
<td>Central-South America</td>
<td>8</td>
</tr>
<tr>
<td>Africa</td>
<td>1</td>
</tr>
</tbody>
</table>

Sales by area

*Year ended March 2018

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas</td>
<td>41.6%</td>
</tr>
<tr>
<td>Japan</td>
<td>58.4%</td>
</tr>
</tbody>
</table>

(As of March 31, 2018)

*Year ended March 2018
Innovation

At the MCHC Group, we consider environmental and social issues along with market needs in leveraging our core technologies to create new value chains and innovative lifestyles. We provide and realize comprehensive solutions. Our efforts extend beyond component and material research and development of technologies. We pursue innovation in manufacturing processes and distribution channels, and find new uses for existing solutions. In this pursuit, we create value for our customers and our business partners throughout the value chain, in all regions in which the MCHC Group is active.

Environmental and Social Issues
- Business Opportunities
- Corporate Brand
- Evaluation and Reputation
- Governance

MOS (Management of Economics)
- Impacts on Society
- Enhancement of Social Capital
- Fulfillment of Social Responsibility

MOT (Management of Technology)
- Environmental and Social Issues (Needs)

MOE (Management of Sustainability)
- Product/Technology Competitiveness
- Solutions

Profitability
- Business Model and Business Processes
- Allocation of Research Resources

Core Technologies
- Business Opportunities
- Corporate Brand
- Evaluation and Reputation
- Governance

The MCHC Group maintains a wide range of unique technologies and expertise—our core technologies—which are the source of tens of thousands of products and services from materials to consumer goods. Moreover, we continually strive to strengthen our foundation and create new technologies to address rapidly changing market needs and offer solutions to social issues.

R&D expenditures
(Billion of yen)

<table>
<thead>
<tr>
<th></th>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016*</th>
<th>FY2017*</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D</td>
<td>134.3</td>
<td>132.2</td>
<td>138.4</td>
<td>126.3</td>
<td>138.8</td>
</tr>
</tbody>
</table>

*IFRS base from FY2016.

Early Commercialization of Next-Generation Businesses

To secure our growth during FY2020-FY2025, we promote commercialization of next generation businesses, reflecting trends in our focus markets.
Management Philosophy

**Mission**
We create innovative solutions globally based on our core values of Sustainability, Health and Comfort, striving for the well-being of people, society and our planet Earth.

**Vision**
Realizing KAITEKI

**Value**
Sustainability, Health, Comfort

MOS Indices

Since FY2011, the MCHC Group has used the MOS Indices as the Group’s new management index for visualizing the degree to which our corporate activities contribute to the sustainability of people, society and the Earth.

We aim to achieve all targets of MOS indices by FY2020, the final year of our medium-term management plan.

Please see our website for details of our achievements regarding this matter.

Promotion of KAITEKI Management

To realize KAITEKI, we have adopted an approach called “KAITEKI Management”. It is a management approach to enhancing corporate value based on three types of management. Two of them, Management of Economics (MOE) and Management of Technology (MOT), have been traditionally emphasized. MOE promotes to optimize capital efficiency within our company, and MOT strives to create innovations for society. And the third management approach, Management of Sustainability (MOS), has a new perspective and aims to improve the sustainability of people, society and the Earth.

KAITEKI Management is unique, and we call the value created from the three kinds of management “KAITEKI Value”. We believe that enhancing KAITEKI Value will lead to the realization of KAITEKI. We promote this management approach aiming to generate revenue and develop ourselves sustainably while contributing to solving environmental and social issues as a company.

<table>
<thead>
<tr>
<th>MOS Indices</th>
<th>Index that need to be achieved</th>
<th>Initiatives</th>
<th>Related SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S Index</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1</td>
<td>Contribute to reducing the environmental impact</td>
<td>15.5.1, 15.5.4, 13.2.1</td>
<td></td>
</tr>
<tr>
<td>S-2</td>
<td>Efficient use of resources and energy</td>
<td>7.1, 7.2, 7.3</td>
<td></td>
</tr>
<tr>
<td>S-3</td>
<td>Contribute to the sustainability of the environment and resources through products and services</td>
<td>13.2.1, 13.2.2</td>
<td></td>
</tr>
<tr>
<td><strong>H Index</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H-1</td>
<td>Contribute to medical treatment</td>
<td>3.8.1, 3.8.2</td>
<td></td>
</tr>
<tr>
<td>H-2</td>
<td>Contribute to the prevention and early detection of diseases</td>
<td>3.8.3, 3.8.4</td>
<td></td>
</tr>
<tr>
<td>H-3</td>
<td>Contribute to achieving healthy and hygienic lives through products and services</td>
<td>3.8.5, 3.8.6</td>
<td></td>
</tr>
<tr>
<td><strong>C Index</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-1</td>
<td>Endeavor to earn greater recognition of corporate trust from society</td>
<td>16.3.1</td>
<td></td>
</tr>
<tr>
<td>C-2</td>
<td>Promote communication and work in concert with stakeholders</td>
<td>16.3.2</td>
<td></td>
</tr>
<tr>
<td>C-3</td>
<td>Contribute to achieving a more comfortable living environment and lifestyle</td>
<td>16.3.3</td>
<td></td>
</tr>
</tbody>
</table>
Approaching to KAITEKI

KAITEKI SQUARE
——The showroom of MCHC Group

KAITEKI SQUARE was established in October 2012 in our Palace Building headquarters as a showroom for the MCHC Group. It is an important platform for communication with our customers and clients, a place where we can interact and exchange ideas about a better future.

KAITEKI SQUARE is comprised of three zones. The first zone is the special Exhibition Zone, which focuses on the role of science and technology in solving various challenges facing 21st century society. The second zone is the Permanent Exhibition Zone, which introduces the technological capabilities and collective strength of the MCHC Group by showcasing products and technologies that the group is working on that are aimed at realizing KAITEKI. The last is the Concept Zone, an interactive video exhibition that offers people a glimpse into future society.

We look forward to welcoming more and more people to our showroom, and having meaningful discussions on how to realize KAITEKI in the future together.

The Corporate Message

Communicating with customers

KAITEKI Value for Tomorrow

The sustainable well-being of people, society and our planet Earth – we call it KAITEKI.

Through our core values of Sustainability, Health and Comfort, we create innovative solutions globally realizing KAITEKI.

Creating KAITEKI Value today we ensure a bright future for tomorrow.

We are THE KAITEKI COMPANY.
The KAITEKI Institute, Inc.

We established The KAITEKI Institute, Inc. (TKI) on April 1, 2009, as a global institute for research and investigation focused on meeting 21st century challenges in the areas of “healthcare” and “society”. The keywords that guide TKI’s activities are “Vita (Life) and Societas (Society)”, which represent our main research areas. TKI operates with a long-term perspective of 20 to 30 years to address some of the most difficult challenges that future generations of mankind will face. By functioning much like an antenna within the MCHC Group, TKI promotes research and investigation that will contribute to solving global issues and pioneer new business frontiers.

TKI is partnering with a global information networks of scientific and academic institutions, national laboratories, venture companies, and private research institutes to identify potential approaches, execute research programs, and develop science-based solutions.

Learn more about the KAITEKI Institute, Inc. @ http://www.kaiteki-institute.com/english
## Group Outline

### Organization

(Mitsubishi Chemical Holdings

(Function-sharing companies)
- The KAITEKI Institute, Inc.
- Mitsubishi Chemical Holdings America, Inc.
- Mitsubishi Chemical Holdings (Beijing) Co., Ltd.
- Mitsubishi Chemical Holdings Europe GmbH
- Mitsubishi Chemical Holdings Corporate Staff, Inc.

(Operating companies)

(MITSUBISHI CHEMICAL

- Mitsubishi Chemical Corporation (Established on April 1, 2017)
  - Head Office: 1-1 Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8251, Japan
  - Line of Business: Performance products, industrial materials, and others
  - Sales Revenue: JPY 2,548.1 billion
  - Number of Employees (consolidated): 40,290

-Life Science Institute, Inc.
  - Company Name: Life Science Institute, Inc.
  - Head Office: THE KAITEKI Building, 13-4 Uchikanda 1-chome, Chiyoda-ku, Tokyo 101-0047, Japan
  - Line of Business: Healthcare and Medical ICT, Next Generation Healthcare, Drug Discovery and Development solution
  - Sales Revenue (consolidated): JPY 132.3 billion
  - Number of Employees (consolidated): 4,709

-Mitsubishi Tanabe Pharma Corporation
  - Company Name: Mitsubishi Tanabe Pharma Corporation
  - Head Office: 2-10 Dosho-machi, 3-chome, Chuo-ku, Osaka 541-8505, Japan
  - Line of Business: Ethical pharmaceuticals and other pharmaceuticals
  - Sales Revenue (consolidated): JPY 433.8 billion
  - Number of Employees (consolidated): 7,187

- TAIYO NIPPON SANSO CORPORATION
  - Company Name: TAIYO NIPPON SANSO CORPORATION
  - Head Office: Toyo Bldg., 1-3-26 Koyama, Shinagawa-ku, Tokyo 142-8588, Japan
  - Line of Business: Industrial gases and related equipment/devices, others
  - Sales Revenue (consolidated): JPY 646.2 billion
  - Number of Employees (consolidated): 16,746

*IFRS base

(As of March 31, 2018)