

Strategies Aimed at Creating New Value

New Business and Product Creation Strategy

The creation of new businesses and products is essential to the transformation of the Group's business portfolio and achieving operating income of ¥100 billion around 2020, two key objectives under the 2014 Mid-Term Business Plan.

The Mitsui Chemicals Group is promoting marketing-driven R&D. To create new businesses and products, the Group is focusing its attention on uncovering where market opportunities lie and identifying exactly what customers need. (p. 53)

Building Technology Platforms

The Mitsui Chemicals Group maintains a wealth of technological expertise that serves as the wellspring of its product and service creation capabilities. When creating new businesses and products, the Group draws on the strengths of its individual and combined proprietary technologies. In areas where the Group is weak, considerable importance is also placed on combining its internal resources with external technologies through a process of open innovation. To this end, the Group has taken stock of its internal technologies and put in place technology platforms. Efforts to strengthen and acquire technologies and to develop human resources are based on these technology platforms. In addition, the Group's technology platforms are playing a key role in accelerating product development that combines multiple technologies, materials, and solution proposals.

Objectives for Building Technology Platforms

- Take stock of existing technologies in order to uncover areas that need to be strengthened and identify technologies that need to be acquired while implementing measures aimed at reinforcing and securing technologies
- Develop and acquire necessary human resources and build a development pipeline
- Accelerate the pace of composite product development by combining multiple technologies

Realizing an Organizational Structure That Ensures Effective Solution Proposals

The Mitsui Chemicals Group established the R&D Center in fiscal 2015 in order to strengthen collaboration across the Group's network of laboratories and ensure the efficient application of its various technologies. In addition, business segments have adopted a revised market-oriented organizational structure while the various R&D divisions have been reorganized by function and technology.

Through this reorganization, the Mitsui Chemicals Group has put in place a comprehensive structure that recognizes the need to advance solution proposals that combine the strengths of the Group's technologies, materials, and services to address market needs.

Looking ahead, the Mitsui Chemicals Group will continue to put forward solutions based on material and product innovation as it strives to address a wide range of social issues by promoting increasingly close-knit ties between research and marketing.

Mitsui Chemicals Named as Thomson Reuters 2015 Global Top 100 Innovators

Mitsui Chemicals was named one of 2015's Top 100 Global Innovators by Thomson Reuters, one of the world's leading information services companies. Based on patent data, the Top 100 Global Innovator Award recognizes the world's preeminent companies in terms of intellectual property.

Of the four selection criteria, Mitsui Chemicals received particularly high marks for exceptional growth in "global reach" and "invention influence." In particular, Thomson Reuters recognized how Mitsui Chemicals' aggressive intellectual property strategy focused on the international market and the commercialization of its innovations is having profound effects on the global market.

The aim of Mitsui Chemicals' intellectual property strategy is to build up and maintain an intellectual property portfolio that will give it a sustainable competitive advantage, an outcome closely related to the successful transformation of its business portfolio. Mitsui Chemicals appreciates Thomson Reuters' recognition of its efforts and will continue to pursue the creation of new customer value through innovative R&D as well as intellectual property activities. (p. 54)

2015 THOMSON REUTERS
TOP 100
GLOBAL INNOVATORS

Shigeru Isayama

CTO & Senior Managing Executive Officer



The Mitsui Chemicals Group reorganized its development operations across the board in fiscal 2016. Restructuring and newly establishing platforms, the Group has put in place the four New Mobility Business Development, New Health Care Business Development, Next Generation Business Development and Robot Materials Business Development divisions with the aim of accelerating new business creation.

TOPICS
Next Generation Business
Development Division

The Mitsui Chemicals Group launched a new diagnostics and consulting business for photovoltaic power generation in March 2014.

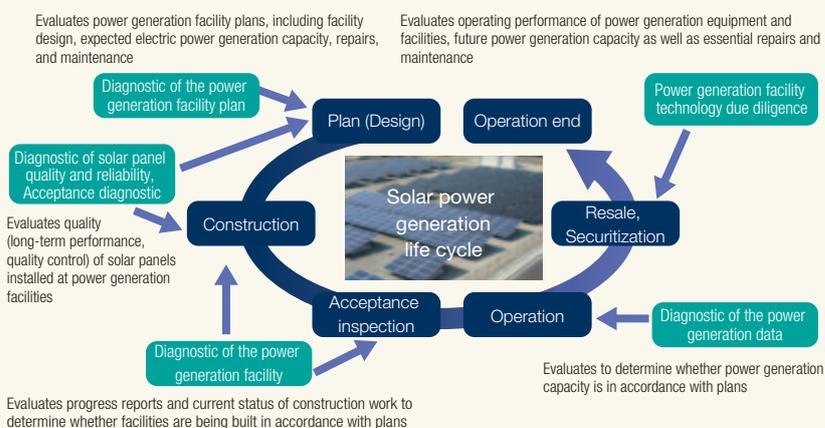
The Mitsui Chemicals Group has been providing the world with encapsulant sheets for solar cells for more than 25 years. Drawing on this proven track record, the Group is well-versed in the damage that long-term outdoor exposure can have on solar panels. In addition, the Group maintains several solar power generation facilities, including the Tahara Solar-Wind™ solar power generation facility. The Group thus boasts considerable expertise in key areas related to the development of power generation facilities, including their repair and maintenance. Applying this knowledge and in tune with the life cycles of photovoltaic power generation facilities, we also provide consulting services from a third-party perspective.

The feed-in tariff (FIT) scheme for renewable energy was launched in July 2012. As a result, activities in connection with the planning and construction of photovoltaic power generation facilities have risen dramatically. Because a significant percentage of the photovoltaic power generation facilities constructed since 2015 have been located on sites with a considerable incline, including golf courses and mountainous regions, construction and maintenance costs associated with such facilities have increased. At the same time, electricity purchase prices under the FIT scheme have declined. For these reasons,

interest in the Group's power generation facility plan diagnostic services has grown as both domestic and international business operators with a high degree of expertise in the field increasingly enter the market.

The Tokyo Stock Exchange established a new market for infrastructure funds in April 2015 and saw the first public listing of a photovoltaic power generation facility fund in June 2016. This triggered considerable activity in the secondary market and an acceleration in the purchase and sale of photovoltaic power generation facilities. Due to a rise in the incidence of defects resulting in a drop in power generation capacity at facilities while online, the Group is enjoying a steady increase in requests for the performance of due diligence (asset value assessment) from entities active in the secondary market.

Through this business, the Mitsui Chemicals Group will contribute to the stable development and operation of photovoltaic power generation, which plays an important role in the renewable energy field.



TOPICS
Robot Materials Business
Development Division

Robots are attracting attention as a method for alleviating social problems, such as declines in working populations as well as lower birthrates, and growing numbers of the elderly. Robots are already assisting people in a variety of settings, and some researchers predict that a society in which people and robots coexist is not too far in the future. With regard to industrial and service robots, there are emerging needs, including for stringent safety precautions when considering their co-existence with people as well as for better performance.

Aiming to respond to those needs, the Mitsui Chemicals Group established the Robot Materials Business Development Division in April 2016. Transcending organizational boundaries, the new division integrates the Group's materials, processing, and analysis technologies and, when advantageous, proactively pursues collaborative activities with entities from other industries as well as projects involving academic and government concerns. Working to provide not only materials but also robotic parts processing, we will furnish total solutions to the robot industry.

In the field of industrial robots, we began the supply of soft exterior covers for robots that work with people. Our products were chosen for their achievement of a superior balance between the design specifications, elasticity, and durability demanded by the customer. Moreover, aiming to strengthen the international competitiveness of Japanese industrial robots, we have joined a multi-industry project team set up within the Japan Robot Association (JARA) that is researching such elemental technologies as next-generation robot materials.

In the field of service robots, we are advancing the development of sensors that ensure robots are aware of people and their surrounding

environment. For example, for Tsukuba Challenge 2016, in which autonomous mobile robots were tasked with clearing various hurdles while coexisting with people in urban settings, we provided shock-absorbing bumpers equipped with built-in in-house developed piezoelectric fiber sensors and are now evaluating those sensors' usefulness. In addition, we have deployed a service robot created by the Robot Materials Business Development Division at exhibitions and other events that is playing a role in uncovering issues and gathering feedback that can be used to develop new technological breakthroughs and reveal potential needs relating to materials.

With regard to cooperation between industry and academia, we are progressing with basic research on pneumatically driven robotic arms in collaboration with Professor Sadao Kawamura (a former president of The Robotics Society of Japan) of Ritsumeikan University and Professor Yoshiro Tajitsu of Kansai University. This research is expected to lead to the creation of new robotic arms that will be able to work side by side with people.

We are confident that these initiatives will not only lead to improvements in robot safety and performance, but help robots spread to every corner of society and contribute to social development.



Photo courtesy Mitsubishi Electric Corporation

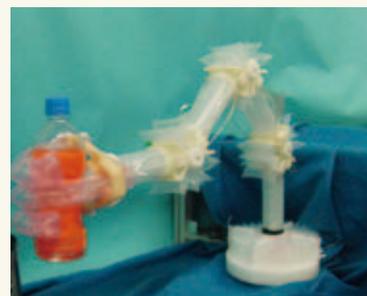


Photo courtesy Ritsumeikan University