

September 2013

KANEKA CORPORATION



INTELLECTUAL PROPERTY REPORT 2013

April 2012 to March 2013

kaneka

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Introduction



Kimikazu Sugawara, President

I offer my greetings with the issue of KANEKA Group's *Intellectual Property Report 2013*.

KANEKA Group drew up its long-term management vision, "DECLARATION OF KANEKA UNITED for the Future," in September 2009 and aims to become a truly global enterprise whose presence is felt in the world market as a "Farseeing and collaboratively value-creating group" and a "Dreamology Company." Japan's economy has seen a progressive correction of the strong yen situation and rise in stock values, and there is increasing expectancy for an early recovery from deflation. In this context, we of KANEKA Group intend to make further innovative changes in our business configurations and to return to a growth track early, as we press on toward realizing our long-term management vision.

Strategic creation, protection, and utilization of intellectual property are indispensable to achieving innovative changes in our business configurations. Carrying out management strategies that unite business strategies, research and development strategies, and intellectual property strategies, and maintaining well-developed management of our intellectual property portfolios, we will redouble our efforts to improve the value and quality of our intellectual property and to build up our intellectual property strength abroad.

We hope that *Intellectual Property Report 2013* serves to deepen your understanding of our intellectual property strategy and actions relating to it. We ask for your ongoing and increased support.

September 2013

Farseeing and collaboratively value-creating group
(Dreamology Company)

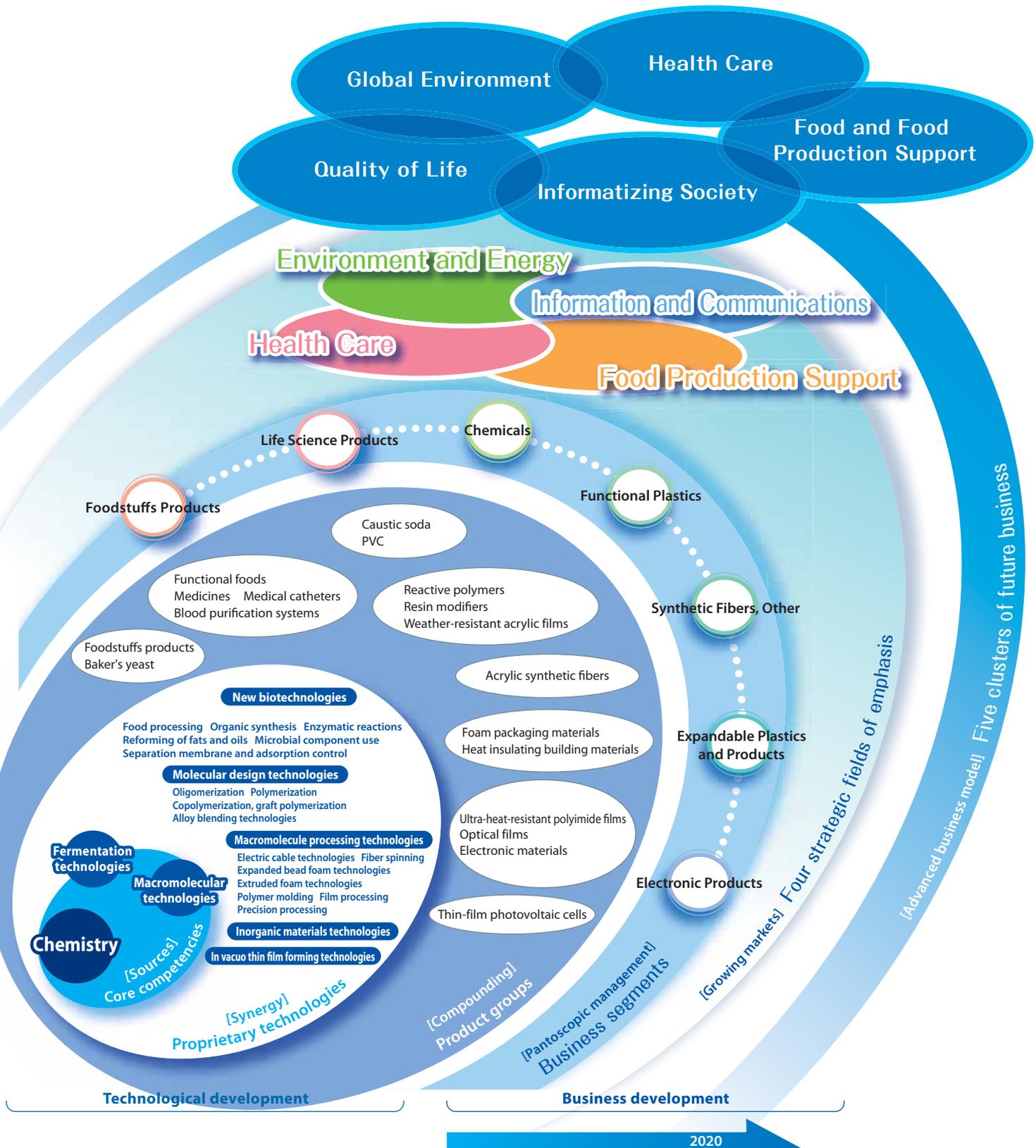


Fig. 1

KANEKA's technological and business development

1. Core Competencies and Business Model

Since its foundation, KANEKA has promoted technological development with macromolecular and fermentation technologies as its core competency fields (Fig. 1). We have created our highly specialized product groups through these multiple proprietary technologies and their synergetic effects.

KANEKA has integrated a variety of technical capabilities

and business models under a new idea called "Pantoscopic Business Management." Starting with this, and looking from the perspectives of customers, a materials-to-sale value chain, and globalization, we will construct business models that flexibly respond to the changing environment with new businesses and products.

2. Strategic Fields of Emphasis and Business Strategy Direction

Figure 1 shows the strategic fields of emphasis, current business segments, and an outlook on future business clusters.

There are four strategic fields of emphasis, in which KANEKA will make concentrated investments of resources as we move toward 2020. These are "Environment and Energy," "Health Care," "Information and Communications," and "Food Production Support." These fields are future growth markets and domains where KANEKA can contribute to society.

At present, we operate in the seven business segments of Chemicals, Functional Plastics, Expandable Plastics and Products, Foodstuffs Products, Life Science Products, Electronic Products, and Synthetic Fibers, Other. Each segment will expand its business enterprises in the strategic fields of emphasis by creating new

businesses and by M&A. In the future, KANEKA intends to evolve these into five major business clusters. In 2020, we plan to have five new business clusters, namely: a "Business cluster contributing to the Global Environment," a "Business cluster contributing to Health Care," a "Business cluster contributing to Food and Food Production Support," a "Business cluster contributing to an Informatizing Society," and a "Business cluster contributing to Quality of Life."

The total amount of research and development expenditures by KANEKA Group was 21.4 billion yen for fiscal 2012 (Fig. 2). Of this, 75% (16.0 billion yen) was directed to the four strategic fields of emphasis for promoting business development (Fig. 3).

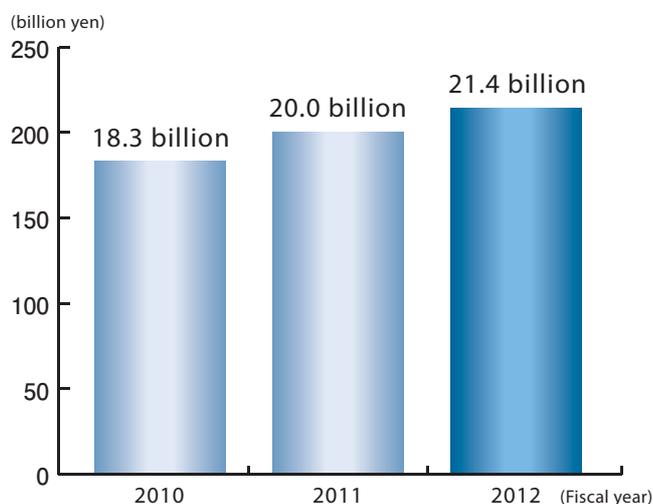


Fig. 2 Transition of research and development expenditure (by KANEKA Group)

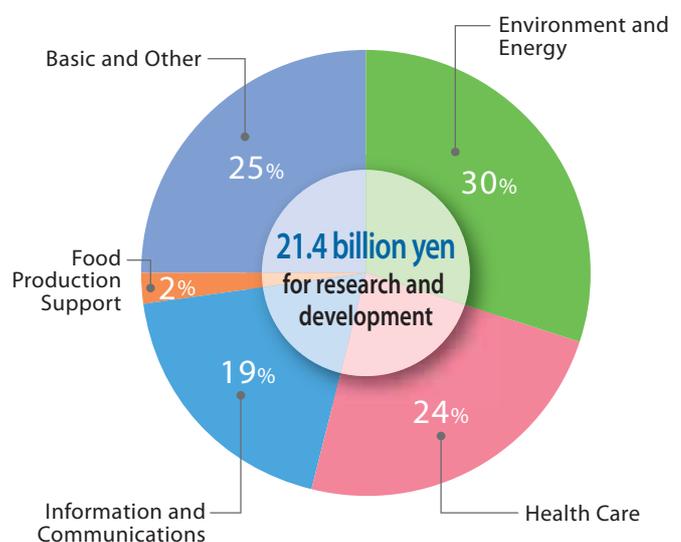


Fig. 3 Research and development expenditures by KANEKA Group in fiscal 2012, divided by strategic field of emphasis

3. Strategic Fields of Emphasis and Overview of Intellectual Property

What lies at the heart of our corporate philosophy, "By a creative integration of people and technology, we will collaboratively create value that breaks fresh ground for the future and contribute to the global environment and to quality of life," is sustainable development, for which innovation is indispensable. We recognize that it is intellectual property (rights) which supports innovation. Guided by this basic recognition, we will carry out our business strategies as a research and development enterprise by uniting business strategies, research and development strategies, and intellectual property strategies.

Our basic policy concerning the execution of intellectual property strategy lies in contributing to competitive business development based on intellectual property portfolio management and in creating new business. To do this, we will build up a system enabling us to pour

our efforts into the strategic fields of emphasis, promote globalization, *strengthen* group management, and promote M&A.

In the strategic fields of emphasis, we are promoting patent applications and registrations globally, especially in the significantly developing Asia region.

KANEKA Group's published domestic patent applications in fiscal 2012 numbered 480, of which 298 (62%) were in the four strategic fields of emphasis (Fig. 4).

At the end of March 2013, KANEKA Group possessed 2,388 domestic patents, of which 1,600 (67%) were in the four strategic fields of emphasis, and 2,420 foreign patents, of which 1,476 (61%) were in the four strategic fields of emphasis (Fig. 5).

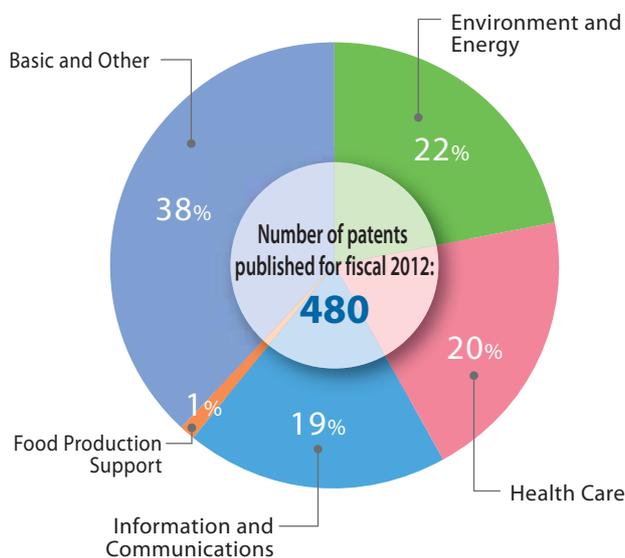


Fig. 4

Number of domestic patents published for KANEKA Group in fiscal 2012, divided by strategic field of emphasis

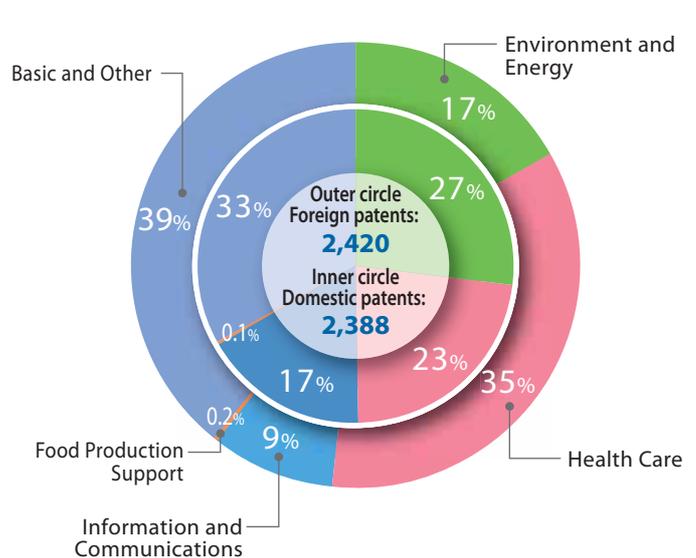


Fig. 5

Numbers of patents possessed by KANEKA Group as of the end of March 2013, divided by strategic field of emphasis

4. Analysis of Marketability of Technologies and Dominance in Markets

KANEKA aims to be a research and development enterprise. All its employees are making efforts to develop innovations that benefit society and are developing new products and new markets using new technological developments and strengthening of

existing technologies.

Here we describe our company's competitive edge and market growth potential, along with our strategies for the four strategic fields of emphasis.

Environment and Energy

Our company holds technologies and raw materials related to the environment and energy, such as high-conversion efficiency thin-film photovoltaic cells and peripheral businesses, organic EL lighting devices, and battery materials for fuel cells and lithium-ion rechargeable batteries. We have diverse potential for developing products such as the world's first soft heat-resistant biopolymer of 100% plant origin (KANEKA Biopolymer AONILEX) and expandable plastic products whose themes are "weight-saving" and "energy-saving." Regardless of whether they are new or existing businesses, we will further expand areas where we can contribute to the environment and energy savings. In fiscal 2012, we developed antiglare photovoltaic cell modules, which cut down on the glare of reflected light. We added such cell modules for use in conventional homes to our line of available photovoltaic cell products from fiscal 2013. In addition, we developed a method of installing photovoltaic generation systems on ceramic roof tiles of conventional homes and began sales thereof from fiscal 2012.

Health Care

We are promoting our business in the Health Care field primarily with medical equipment, medicinal bulk intermediates, and functional foodstuffs business, but we also will expand our business using M&A and other activities. Also, we will create new markets and products with our proprietary biotechnologies and material technologies, using our business in regenerative medical devices, medical polymers, biologics, and materials for preventative medicine and nursing care, among others. We succeeded in developing an enzyme-digested *azuki* bean product containing azuki peptides. This product is obtained by digestion of *azuki* beans using enzymes derived from *koji*-mold and is able to lower blood sugar levels quickly. We began selling it as a functional foodstuff in fiscal 2012. We also began selling the antibody drug purifying material Protein A Chromatography Resin, which exhibits high antibody adsorbing capacity and alkaline resistance, in fiscal 2012.

Information and Communications

We are developing new businesses in areas such as opto-electro chemicals used in LED lighting and elsewhere; thermal solution materials able to deal with high heat problems in increasingly compact and high-capability devices; and transparent conductive films (ITO films), using macromolecule technologies. Meanwhile, we will advance our electronics technologies and ultra-heat-resistant polyimide film, optical film, and other materials technologies to create new products that will support society in the future. In fiscal 2012, we produced base resin with high thermal conductivity, developing technology to give plastic materials high thermal conductivity while using only small amounts of filler additive.

Food Production Support

KANEKA has wide-ranging potential to cope with the issue of food shortages caused by population increases. We will create new business through functional feed material and other stockbreeding and cultivation support materials, plant supplements, and other farm production support materials. High-safety KANEKA Coenzyme Q10, derived from yeast, is being used domestically and abroad as a basic ingredient in feed for poultry, swine, cattle, and other livestock. We began selling it for the animal industry in Vietnam in fiscal 2012.

5. Research and Development-Intellectual Property Relational Diagram; Research and Development Cooperation and Affiliation

Figure 6 shows the relationship of research and development to intellectual property in KANEKA. KANEKA's research and development system is managed by five research institutes, which report directly to the president. The individual institutes are functionally linked to the research organizations of the business segments and aim for the distribution, effective application, and synergistic effect of research and development resources such as personnel, materials, funds, and information, and are working to advance their respective research and development themes.

As a system under direct control of the president, the Intellectual Property Department develops intellectual property strategies and manages intellectual property portfolios for the entire KANEKA Group. In addition, we have assigned an intellectual property committee member as an intellectual property portfolio manager to each Research and Development institute and each business segment, in order to drive intellectual property efforts effectively.

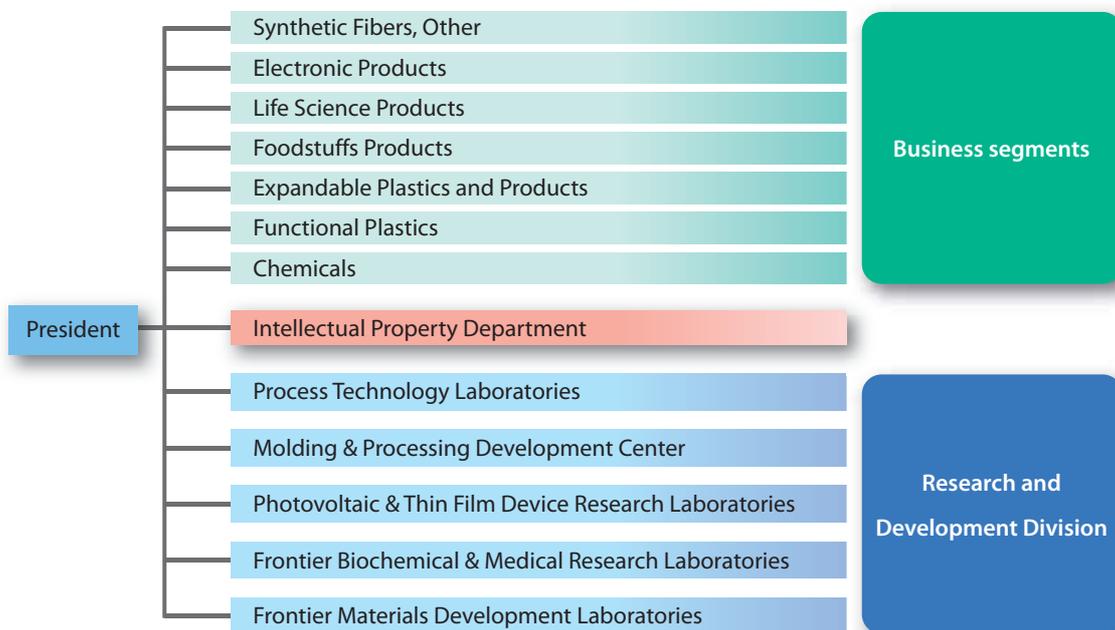


Fig. 6 Relational diagram of Research and Development Division and Intellectual Property Department

As for research and development efforts, we are globally developing open innovation, including by acquisition and development of overseas research and development bases. By creatively combining external technologies, we are promoting innovative changes in research and development and process innovation in the form of innovation in production methods to develop and propose earth-friendly processes.

We have been involved in joint research with the Japan Aerospace Exploration Agency (JAXA) materials development group led by Dr. Rikio Yokota. In this research, we succeeded in adding thermal adhesiveness as a quality to the only heat-resistant polyimide that had been in use for spacecraft polymer membrane material, without detracting from its tolerance of space environment conditions. In joint research with the fatigue research team led by Special Appointment Professor Yasuyoshi Watanabe of

Osaka City University, we found that a reduced form of Coenzyme Q10 can improve symptoms of people suffering from Chronic Fatigue Syndrome (CFS) showing long-lasting fatigue, tiredness, etc. with unknown cause.

We succeeded in providing both shock absorbability and shock diffusivity to the shock absorbing pads in our "KANEKA hip protector" underwear, on sale from October 2012. We accomplished this using our unique configuration of material, excellent for dispersing shock and developed in joint research with Professor Eiichi Tanaka of Nagoya University and Associate Professor Sota Yamamoto of Shibaura Institute of Technology. Furthermore, with the cooperation of deputy director Atsushi Harada of the National Hospital for Geriatric Medicine, NCGG, we further perfected our hip protectors by reflecting results of practical evaluations of the product held at the same Hospital.

6. Policies Concerning Acquisition and Control of Intellectual Property, Control of Trade Secrets, and Prevention of Technology Leaks

KANEKA has established intellectual property control regulations and taken care to carry out appropriately the creation, protection, and utilization of intellectual property.

The Intellectual Property Department has established as its operations policy concerning acquisition and control of intellectual property the slogan "High-quality, speedy, and global." It aims to strengthen a system for acquiring and utilizing foreign patents, and at the same time to enrich the companywide workflow of intellectual property operations using its intellectual property control system to accelerate the intellectual property business process, strengthen documentation control, and improve work efficiency.

We control trade secrets by having the employees thoroughly informed of the contents of the compliance guidebook edited by the CSR Committee, as well as of employment regulations and know-how management procedures.

To encourage excellent inventions, we have instituted a commendation system for outstanding inventions. In this system, we recognize outstanding inventions, placing emphasis on quality, within 2 years after the

patent applications for said inventions are filed.

We commended 13 outstanding inventions during fiscal 2012.

Regarding remuneration for an employee's invention, we determine the amount according to the results of an examination by the Remuneration Review Committee based on invention remuneration regulations and based on the working profit for the preceding three years and royalty income. The result of the review is released within the company. No upper limit is set to the remuneration amount. In fiscal 2012, when the remuneration program was implemented, we gave remuneration to 58 employees.

We have posted a full-time intellectual property manager at our Americas umbrella company, Kaneka Americas Holding, Inc., to promote globalization of our intellectual property activities.

7. Contribution of License-Related Activities to Operations

Generally, the main objectives for acquiring and controlling intellectual property rights are "to maximize the profit from one's own business" and "to gain direct profit from the intellectual property."

KANEKA's prime objective is "to maximize the profit from its own business." We will develop business operations to be as advantageous as possible, using patent rights as exclusive privileges.

On the other hand, we will use licenses if they will effectively expand markets where our technologies have been patented.

Also, as we work toward creating new businesses, we will actively build business alliances using licenses and cross-licenses.

8. Contribution of Patent Clusters to Operations

KANEKA seeks to make the most cost-effective use of intellectual property expenditures through filing and registration of foreign patent applications carefully selected within each business segment after an examination of their compatibility with a wide spectrum of domestic patent applications and business developments. We also strive to strengthen our foreign intellectual property rights in line

with the Asian shift of international business. As Figures 7 and 8 show, the Functional Plastics, Life Science Products, and Electronic Products segments take up large portions of KANEKA Group's published domestic patents and patents in effect. Also, as Figure 9 shows, our domestic and foreign patents are increasing yearly.

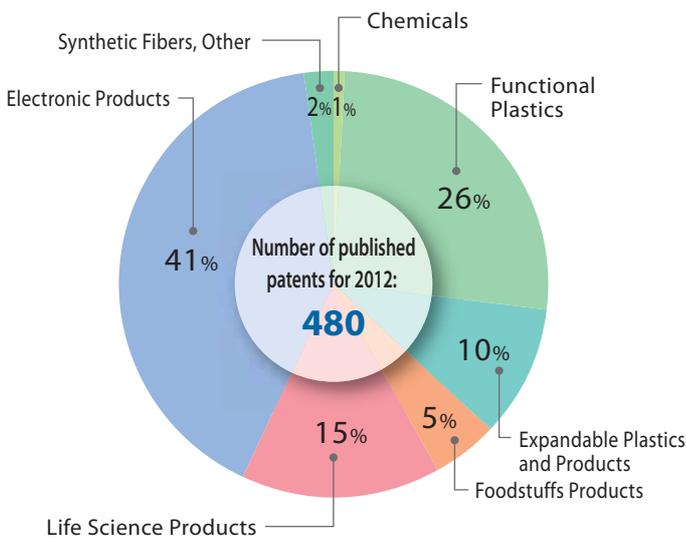


Fig. 7 Number of published domestic patents for KANEKA Group in fiscal 2012, divided by business segment

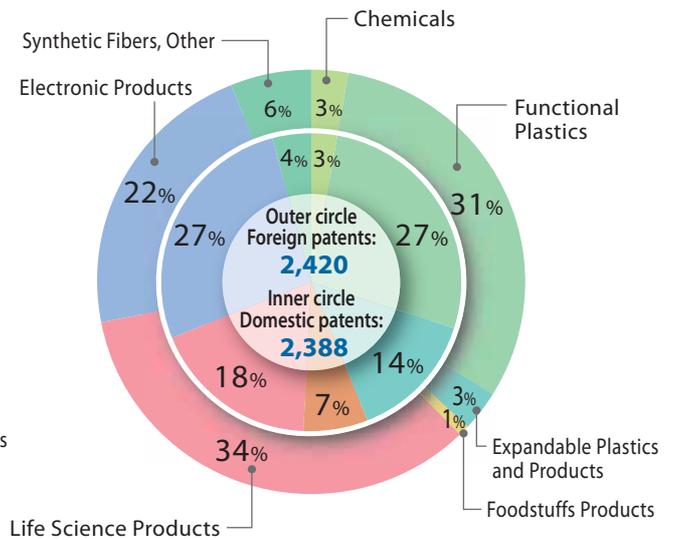


Fig. 8 Number of patents possessed by KANEKA Group at the end of March 2013, divided by business segment

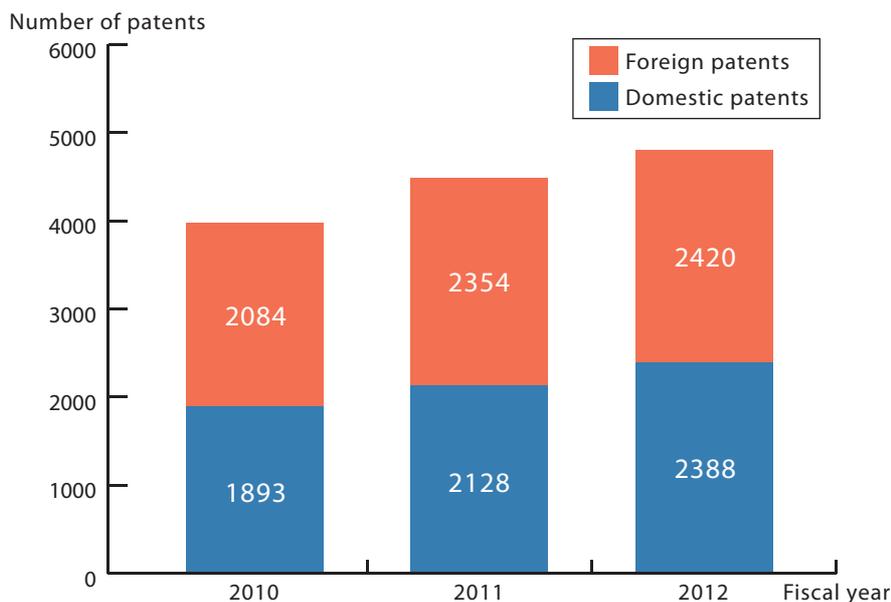


Fig. 9 Changes in number of patents owned by KANEKA Group

We have been filing strategic patent applications, aiming to construct strong patent networks that cover important themes in research and development for the strategic fields of emphasis.

An example of our patent networks is the one for "GRAPHINITY," a graphite sheet that serves as a thermal solution material. GRAPHINITY is a high thermal conductive material made by heat treatment of a polymer film at high temperatures. It provides excellent heat conductive properties compared to existing natural graphite sheets and metals (such as aluminum and copper).

It is suitable for use in thermal solutions as required by technological advances in the information and communications field, particularly in smartphones and cellular phones. As a result, demand for "GRAPHINITY" is rising yearly. Our company aims to increase GRAPHINITY's popularity in the market and looks forward to greater increased sales for this product.

GRAPHINITY is made from polyimide film. Armed with our distinctive graphite sheet technology that uses the advantages we have as a producer and seller of polyimide films, we have created a patent network of many patents, including for high ductility capability (Japan Patent No.

4521478) and high thermal conductive capability (Japan Patent No. 4684354).

We have filed 159 patent applications globally for this technology (of these, 42 in Japan and 13 abroad have been registered). We will continue to build up our patent network in order to deter entry into the market by competitors, while at the same time driving technological development that meets our customers' needs in accordance with the growing market in the information and communications field.



Fig. 10 Graphinity™ (high thermal conductive graphite sheet)

9. Intellectual Property Portfolio Policies

We hold that the pivotal issue for maintaining the cycle of intellectual property creation, protection, and utilization is management of intellectual property portfolios.

In the case of KANEKA, the key to intellectual property portfolio management is building up a strong patent network that contributes to our operating revenue, based on strong patents whose rights we can exercise.

In order to strengthen our intellectual property portfolio management, we implemented training programs that are based on our intellectual property curriculum as newly established in fiscal 2012. In this curriculum, we have renewed our previous intellectual property, patent specification writing, and other training programs; added a

basic intellectual property training program for sales personnel; and made other modifications. We aim to foster a corporate culture that places a high value on intellectual property and to strengthen "patent-mindedness" with these changes.

In addition, in our joint research with Kobe University under a comprehensive cooperation agreement, we are developing a method of evaluating the value of patents. We aim to use this method not merely to manage our patents numerically, but also to implement an evaluation index and help improve the quality of our patents. We also aim to develop a method to evaluate comparatively the value of our patents with competitors' patents.

10. Information on Handling Risks (Current State of Exercise of Rights)

To prevent disputes with other companies, KANEKA always conducts a patent search during presentation of any new theme, proposal for new business, change in specification, and other suitable occasions, and secures patent clearance. In addition, when necessary, we make use of advice from outside specialists to adopt the safest policy based on comprehensive judgment. On the other hand, we make it a policy to firmly stand against and promptly deal with any act of patent infringement or imitation by other entities, including with patent infringement lawsuits.

The patent infringement case filed by KANEKA Corporation in the Federal District Court, Central District of California on October 6, 2009 regarding one of our U.S. patents concerning a reduced form of Coenzyme Q10 concluded with a settlement on November 1, 2012. The defendant recognized that the pertinent patent was valid and could be enforced, recognized its past infringement, and settled on the condition that it would not practice sales, etc. of the product in question any more in the United States.

KANEKA Corporation had filed a request with the U.S. International Trade Commission (ITC) for investigation and Exclusion Order regarding products suspected of infringing a U.S. patent concerning a manufacturing method of an oxidized form of Coenzyme Q10. The ITC issued its notice and opinion on November 29 and December 6, 2012, concluding that although our patent was valid, evidence of infringement was insufficient. This position was made final at the end of January 2013. Extremely dissatisfied by this decision, we are continuing with the infringement case filed in the Federal District Court, Central District of California on March 22, 2011, whose deliberations resumed following the ITC's decision. Some of the defendants have filed a declaratory judgment action with the Federal District Court, Southern District of Texas, asking the Court to verify their claims of noninfringement on their part and invalidity of our patent. This case is also pending.

In addition, patent infringement cases--one in the Paris District Court, France (filed on October 28, 2010) and one in the Düsseldorf District Court, Germany (filed on April 13,

2012)--regarding one of KANEKA Corporation's European patents concerning a manufacturing method of an oxidized form of Coenzyme Q10 remain pending.

The patent infringement case filed by KANEKA Corporation in the Federal District Court, Eastern District of Texas on July 26, 2010 regarding five of our U.S. patents concerning polyimide film products and relevant manufacturing methods was later transferred to the Federal District Court, Central District of California. As an additional measure, we had filed a request with the ITC on April 1, 2011 for investigation and an Exclusion Order regarding products suspected of infringement. While the investigation was in progress, we had suspended the patent infringement case, but with the end of the investigation, the court case was reopened on December 10, 2012 and remains pending. The ITC recognized the validity of the patents and some of the claims of infringement of the patents, but rejected the request for Exclusion Order on the grounds that our industry utilizing the patents in the United States had not been demonstrated sufficiently, on October 5, 2012.

The patent infringement case filed by KANEKA Corporation in the Federal District Court, Northern District of Texas on July 20, 2010 regarding two of our U.S. patents concerning flame retardant polyester fiber for artificial hair is still pending, but on June 28, 2013 a favorable jury verdict was issued, recognizing our assertions that the defendants had infringed our patents and that we had borne loss because of that infringement.

At least one of the defendants had asserted that neither patent was valid, but the jury members deemed both patents valid.

As of the end of July 2013, no intellectual property lawsuit that would greatly affect operations has been filed against the KANEKA Group.

Cautions Concerning Prospect

Prospect, planning, policies, management strategies, determination of facts, descriptions concerning the future development, and items other than facts already realized are described based on forecasts, estimations, plans, etc. founded on the information we currently have.

In addition, when making a forecast, we use prescribed premises in addition to the facts already realized. There is no guarantee that such premises are objectively correct or will be realized in the future. The factors that affect the premises include technological and demand trends, the state of competition, the economic environment, fluctuation of the exchange rates, etc.

Policy Concerning Disclosure

This company firmly maintains its policy not to disclose matters of major uncertainty in the future or details of its important strategies. Accordingly, this material discloses no such matters.

KANEKA

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