Social Innovation

Using our years of experience and expertise to create new, valuable solutions to challenges faced by our customers and society is our mission and motivation. Konica Minolta continues to create new value for society by providing innovative solutions and products with a focus on social and environmental sustainability.

Our Concept

Focusing on Social Issues and Creating New Value

Social concerns such as climate change, resource depletion, and population decline have emerged in recent years. Against this backdrop, the Sustainable Development Goals (SDGs) were adopted at the United Nations Sustainable Development Summit in September 2015. Corporations are expected to play a role in achieving these goals, and positive corporate action has become more important.

Konica Minolta is proactively addressing this need by incorporating state-of-the-art digital technologies, such as the Internet of Things (IoT), artificial intelligence (AI), and robotics into its core technologies. The company is working to transform its business to focus on providing solutions to pressing global issues.

This transformation seeks to contribute not only to the achievement of the SDGs, but to enriching the lives of the individuals who make up society.
Business Development That Contributes to Solving Social Issues

### Background and Issues

To remain a company that is valued by society, Konica Minolta must continue to develop innovative technologies that contribute solutions to social issues. Based on this concept, the company is focusing on increasing its capacity to contribute solutions to social problems when making the decision to develop new businesses.

### Vision

Konica Minolta believes that reforming the workflow of people who work in offices, in medicine and industry leads to solutions for various social issues. The company seeks to leverage its technologies, human resources and networks to create a wide range of businesses that help to solve the issues faced by its customers and society.

### Key Measures

- Promoting new business development through core technologies and open innovation
- Promoting business development at the company’s five Business Innovation Centers (BICs)
- Establishing KPIs in the social outcomes of new businesses

### Major Initiatives

#### Open Innovation Platform Established at the Konica Minolta Hachioji SKT R&D Labs

Konica Minolta is developing new businesses that contribute to solving social issues by leveraging core technologies such as materials, imaging, optics and microfabrication.

The Konica Minolta Hachioji SKT R&D labs were built to serve as the core base for this effort. As a “space for intellectual co-creation,” they are engaged in R&D beyond the boundaries of business divisions, and in open innovation in collaboration with outside research institutes and companies.

#### Worldwide, Five Business Innovation Centers (BICs) with over 100 Projects

Konica Minolta operates BICs in the five major regions of the world—Japan, Asia Pacific, China, Europe, and North America—with the goal of creating innovative businesses with flexible thinking. The BICs recruits people with extensive outside expertise to serve as key members of each center. These centers are currently pursuing approximately 100 projects with local startups and research institutes. In fiscal 2016, multiple projects led to marketable ideas and steady results were recorded.

### Examples of Major New Businesses That Solve Social Problems

<table>
<thead>
<tr>
<th>Social Theme</th>
<th>Konica Minolta Business</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage of nursing care workforce</td>
<td>Care Support Solutions</td>
<td>Contribute to improving work efficiency and quality of nursing care by transforming workflow</td>
</tr>
<tr>
<td>Realizing a safe, secure society</td>
<td>Monitoring Solutions</td>
<td>Contribute to the realization of advanced security via monitoring systems with high detection accuracy</td>
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<td>Workstyle reforms</td>
<td>Workplace Hub</td>
<td>Support the construction of IT platforms for SMEs and contribute to improved work efficiency and productivity</td>
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<tr>
<td>Realizing personalized medicine</td>
<td>Fluorescent nanoimaging</td>
<td>Contribute to drug discovery research and clinical trials and improve success rate with highly accurate cancer detection</td>
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</table>
Social Issue

With an Aging Population, Japan’s Nursing Care Shortage is an Urgent Issue

Japan is currently facing a super-aging society where one in four people is 65 years or older, resulting in an increased need for nursing care. On the other hand, with the shrinking working-age population, the shortage of nursing care staff is becoming more acute, and the increasing burden on care staff has become a challenge.

Konica Minolta has developed Care Support Solutions, a monitoring system for rethinking nursing care workflow by monitoring and analyzing in detail the actual status of nursing care services.

The Sensor Box, the core of this system, performs 24-hour monitoring using near-infrared and microwave sensors. It operates regardless of the room’s brightness and the posture of the room’s occupant. If a resident sits up on the bed, leaves the bed, falls down, or falls out of the bed, nursing staff are notified via smartphone with video display. They can check the video of the resident, call the room, and then decide whether they need to rush to offer assistance. They can also predict resident behavior, which significantly reduces their workload. When used in an actual facility, there was a sharp decrease in both the quantity of nursing staff activity and working hours.

If the burden on nursing care staff and the number of staff needed can be reduced, more time can be devoted to caring for patients and other tasks, such as extra rehabilitation for residents. Further, the workload of maintenance workers.

Care Support Solutions Framework

Consequently, the danger of accidents and fires be reduced, but also workers can properly respond. Not only can the detects and reports gas leaks, even unskilled information such as leak location, concentration, and leakage quantity. Because it autonomously leaks that had been invisible visible, it provides in plants over a widespread area. By making gas those problems. This product monitors gas leaks gas flow; the ordinary camera (left) does not show global warming, through gas leakage inspection of shale gas mining equipment.

Social Impact of Care Support Solutions

Verified results at facilities where introduced

<table>
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<tr>
<th>Quantity of nursing care staff activity</th>
<th>Staff time needed to complete care records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day shift: 10% reduction</td>
<td>28% reduction</td>
</tr>
<tr>
<td>Night shift: 29% reduction</td>
<td></td>
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</tbody>
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17 care staff can handle the care service performed by 20 15% labor savings

If Care Support Solutions are introduced to 300 facilities with 50 residents and 20 care staff each, it would be the equivalent of freeing up 900 care staff, thus making it possible to open about 52 new facilities!
because care staff may be freed up to help at other facilities, this could lead to the opening of new nursing care facilities, thereby supporting the acceptance of more elderly residents.

According to Japan’s Ministry of Health, Labour and Welfare, there is also data that indicates there will be a shortage of 380,000 workers in the nursing care labor force in 2025. Konica Minolta will more widely provide its Care Support Solutions, striving to eliminate the nursing care staff shortage and build a society in which the elderly can receive nursing care with peace of mind.

### Care Support Solutions’ KPIs
(when newly introduced to a nursing care facility)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Day shift: 10% reduction; Night shift: 25% reduction (FY first introduced)</th>
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<tbody>
<tr>
<td>Quantity of nursing care staff activity</td>
<td>25% reduction (FY first introduced)</td>
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<tr>
<td>Staff time needed to complete care records</td>
<td>One or more per year</td>
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<tr>
<td>Number of caregiver satisfaction surveys conducted</td>
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#### Close Up 2

**Helping to Improve the Safety of Aging Plant Equipment**

**Social Issue**

**Increased Accident Risk Caused by Aging Plant Equipment and Loss of Veteran Workers**

In recent years, the increasing risk of accidents and fires caused by aging has become an issue at plants in Japan. On the other hand, many of the veteran workers with responsibility for maintaining parts of the plant are approaching retirement age, so upgrading maintenance and reducing the workload through use of IoT are urgent issues.

**Konica Minolta’s Innovation**

**A Gas Monitoring System That Makes Invisible Gas Visible and Monitors Even the Slightest Abnormalities Over a Wide Area**

Konica Minolta’s Gas Monitoring system solves those problems. This product monitors gas leaks in plants over a widespread area. By making gas leaks that had been invisible visible, it provides information such as leak location, concentration, and leakage quantity. Because it autonomously detects and reports gas leaks, even unskilled workers can properly respond. Not only can the danger of accidents and fires be reduced, but also the workload of maintenance workers.

The Gas Monitoring System also deploys environmental countermeasures, including against global warming, through gas leakage inspection of shale gas mining equipment.

**Voice of a Customer**

Because we can now check the situation in the resident’s room remotely, we have more time and manpower to deploy than we did before. This means we can spend more time on priority care, such as walking exercise and hydration. Also, as the staff smartphone gets a notification when the resident moves, the resident can be called immediately from the phone, which can help prevent falls. In addition, because the care support solution records the number of calls and video data, if there is a fall, we can use this data to establish evidence-based nursing care service policies. Going forward, we plan to pool various types of care data in order to enable us to provide predictive nursing care.

Akira Negishi
Care Director and Senior Caregiver
Wellcare Garden Kugahara