

How Long COVID Is Changing Healthcare

Newsweek

INTERNATIONAL

SPECIAL REPORT

CHINA'S EYES ON THE U.S.

TO QUASH DISSENT, BEIJING IS RAMPING UP SURVEILLANCE AND HARASSMENT—DEEP INSIDE IN AMERICA

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Yu Nakata, President and Representative Director, **KEYENCE Corporation**



Shinichi Taniguchi, President, Representative Director and COO, **Mabuchi Motor Co., Ltd.**



Masayoshi Fujimoto, President, Representative Director and CEO, **Sojitz Corporation**



Yasuhiro Takeuchi, President and Director, **Hitachi Industrial Equipment Systems Co., Ltd.**

best reputation in the world. Some of our European customers have said that the MSP is the best.”

Mabuchi Motor, the world's largest manufacturer by volume of small electric motors, also sees opportunities being presented by the CASE era. “In terms of EVs, in order to increase the battery efficiency and manage its temperature, we have this new technology called thermal management, where we install a motor into thermal management systems to control the temperature. When you look at the car as a whole, there is a need to cool down the battery, but we can also utilize the heat that is generated by the battery to warm up the car, for example,” explains president Shinichi Taniguchi.

He adds: “We are not going to produce any large-scale motor that will replace traditional internal combustion engines (ICE), however, when talking about mirrors, door locks, and power window lifters I think our motors will remain in the EV society. With increasing expectancy for EVs to run more efficiently and be able to drive further distances, everything needs to become more compact and lightweight. I think this is where our existing technology can come into play.”

Fine Sinter is a pioneer in powder metallurgy whose main client has historically been Toyota. President Yoichi Inoue is also optimistic about the future as the company looks to diversify its business. “Some in the industry have been joking that the only thing left for us to make will be the wheel axles, but I think that diversification not only for the automotive industry, but also hydraulic equipment, agricultural equipment, and industrial products, has meant that we are not putting all of our eggs in one basket. Beyond automotive, there are so many possible industries and opportunities for our manufacturing techniques. The only way to survive these harsh times is to diversify,” he explains, adding that there is great potential for the company's reactor core technology when it comes to next-generation batteries.

“The reactor core is for the inverter, and right now we are looking into new applications in battery charging. Battery charging, not just in automobiles, needs to have good features. People need shorter and faster charging times, and that itself is presenting a bright future for our type of inverter reactor core.”

Japan's chemical industry is also representative of the nation's industrial evolution, with Japanese companies leading the way in value-added, functional materials while the mass production of base chemicals has shifted to other countries. “The applications of functional materials include batteries, semiconductors, cellulose nanofibers and films. These products were developed to meet the demand of end-users and to provide added value to existing products,” says Matsu Kushida, President and Representative Director of N.E. CHEMCAT CORPORATION, a manufacturer of precious metal catalysts for a wide range of industries that is focused on developing materials for the new energy value chain in line with carbon neutrality goals.

“Japanese companies have grown by catering to ever-changing client needs. The functional material sector also grew because of the uniqueness of the Japanese market, which requires a short production cycle and high innovation. These are the driving forces that inspired Japanese companies to evolve. Private and public Japanese companies and research centers such as AIST have conducted research on functional materials to provide additional value, and this led to Japan receiving a Nobel Prize in the chemical sector. Japanese companies will continue to provide added value and not focus on mass production to stay competitive with countries such as China, Korea, Taiwan and other ASEAN countries.”

Katsumi Ishizaka, President and CEO of Fuji Silysia Chemical (FSC), shares a similar perspective on Japan's chemical industry. “Japanese firms are focusing on high value-added products and functional materials.

They are trying to cultivate superb technology, and it is the same with us when it comes to the specialized field of chemical R&D,” he explains.

FSC's products are used in a range of industries, including pharmaceuticals, foods, cosmetics, paints and plastics. “Our products are always evolving as we try to keep up with customer requirements. For example, with paints and plastics, they are making new technological innovations and our products are always needed for them, especially with paint, which is used everywhere,” adds Mr. Ishizaka. “With plastic, for example, think about plastic films. Many kinds of plastic film are needed for solar panels and smartphones, and our silica is always needed, so we need to keep up with client innovations through partnerships.”

Having previously formed part of the Bridgestone Group, Archem Inc. recently became an independent company and focuses on urethane materials to develop products across three areas: seat pads, chemical products and office automation. Satoru Kusano, Global CEO and Representative Director, is confident that focusing solely on the urethane business will give Archem an advantage as it looks to expand in the global market.

“In order to establish Archem as the No.1 in the urethane industry, to build a foundation to be recognized by stakeholders around the world, and to be recognized as a first-class company, we are focused on building a growth strategy for Archem as a whole and to developing human resources who can meticulously assemble and execute PR strategies. We are looking to raise the talent that will bring about change, thoroughly promote DX, and build a strong, globally diversified team. A single company focused only on the urethane business also increases the potential for new use cases and new business ideas to come to fruition quickly.”

Japan's pyramid-shaped industrial structure has been key to its success in manufacturing, with SMEs, known

as *chusho kigyos*, providing the materials, parts and technologies to larger companies higher up the value chain, while the nation's famous trading houses (or *sogo shosha*) have also played an important role.

“Typically SMEs, which can produce parts at lower costs than large enterprises, manufacture components and deliver them to large enterprises, which then assemble the parts,” says Toshihiko Kawai, President of Hanshin Metals Corporation. “This also helps large companies concentrate on marketing, design, assembly, and quality assurance. Since large companies are often publicly listed, they tend to be slow in making decisions to invest in new equipment. There are cases where smaller companies can get business opportunities by making quick decisions about investing in new equipment. Our company's role is to purchase materials from steelmakers and deliver finished products to our customers, including those SMEs in the fastest and most cost-effective way possible.”

Masayoshi Fujimoto, President and CEO of trading firm Sojitz Corporation, meanwhile, explains the important role of *sogo shosha* in Japan's manufacturing history. “We were able to make a significant contribution to Japan's enlightenment and industrialization through the establishment of a wide range of manufacturing businesses, and these trading firms then helped to sell Japanese products abroad.”

With 75-plus bases internationally through more than 300 interconnected companies, Sojitz is currently focusing on renewable energy development projects while it looks to expand its global reach. “My vision is for Sojitz to become a true global *sogo shosha* that pursues business initiatives based on unique regional needs,” adds Mr. Fujimoto. “In Japan, there are many companies which have been in existence for 100 to 150 years, continuing from the Meiji era to the present. My hope is that Sojitz will continue to evolve in different forms, while continuing its legacy as a *sogo shosha*.”

A new era for the urethane masters bringing comfort to people's lives

Freshly independent company Archem is challenging itself to maximize the possibilities of chemical materials in the areas of seat pads, chemical products and office automation.

Commencing its business in August 2022 with its head office in Tokyo and development center in Yokohama, independent company Archem uses urethane materials to develop products across three areas: seat pads, chemical products and office automation (OA).

"We are a urethane specialty company that recently became independent from Bridgestone," explains Satoru Kusano, Global CEO and Representative Director. "Archem is a coined word combining 'Arc' (signifying a comprehensive and broad range) and 'Chemicals'.



"We are thinking about expanding our business not only in Asia but in western regions, such as the U.S. or Europe."

Satoru Kusano,
Global CEO &
Representative
Director, Archem Inc.

talent that will bring about change, thoroughly promote DX, and build a strong, globally diversified team. A single company focused only on the urethane business also increases the potential for new use cases and new business ideas to come to fruition quickly.

"We plan to solicit and reward business plans from employees through an open application system, and this self-fulfillment of their own proposal will lead to happiness across the board."

With a clear employee-centric strategy, Archem is looking to get the word out on their aforementioned three-pronged business focus.

"Japanese *omotenashi* is the culture of meeting the expectations of the customer, and also something we value," says Mr. Kusano. "We are able to respond to our customers' needs through our integrated production process, from formulation to manufacturing technology and onto evaluation technology. We design products by quantifying the sensory and qualitative requirements of our customers through our evaluation technology."

"Our OA business also adapts to people's dramatically evolving lifestyles. Our strength lies in our product design and production technology that imparts electrostatic performance to urethane. The prod-



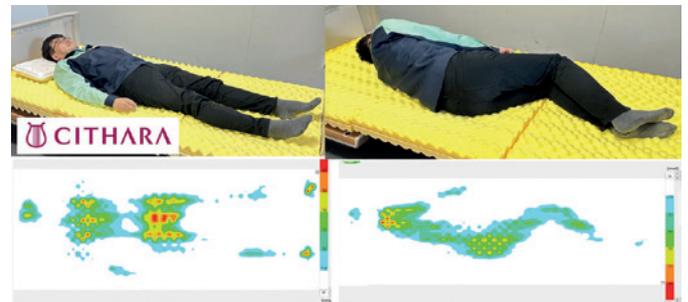
Simulator room with six axes that enables Archem to check vibration and tilting

uct mix is expected to change with teleworking more prevalent, resulting in demand for large office printers declining and that for home-use



Seat pad and CAD drawing

"In order to establish Archem as the No.1 in the urethane industry, to build a foundation to be recognized by stakeholders in the world, and to be recognized as a first-class company, we are focused on building a growth strategy for Archem as a whole and developing human resources who can meticulously assemble and execute PR strategies. We are looking to raise the



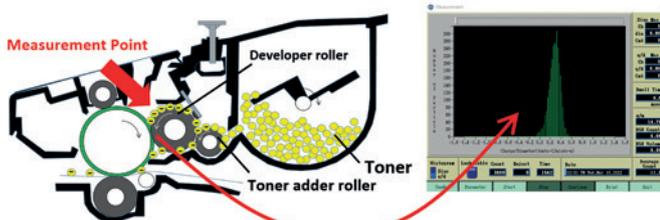
Pressure dispersion evaluation of Archem brand "CITHARA" mattresses

fields, including automotive, home bedding and general consumer goods including residential use. For example, we are able to quantitatively evaluate comfort and sleep and use this information in product design for home bedding.

"In addition to growth in health-consciousness, and the impacts of COVID 19, there is an increasing need for comfort in daily living. We hope to deliver more suitable products by approaching consumers directly, not just in the B2B market.

and small printers picking up. We are responding to these changes with agility, while utilizing our overseas bases in China and other regions where market growth is anticipated, transferring and expanding our operations to overseas production bases."

Toner cartridge diagram



Developer roller charge distribution measurement and measurement results

