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WORLD'S
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COMPANIES
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THE WORLD'S
LARGEST
CORPORATIONS

WORLD'S
TOP 500
COMPANIES
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BY REVENUE
AND PROFIT



JAPAN



A GLOBAL SPIRIT
IS TRANSFORMING
THE COUNTRY
FOR 2020
AND
BEYOND

TKYO 2020:
OLYMPICS TO LIFT
THE SPIRIT
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Q&A: FUTURIST AND
INNOVATION EXPERT,
MORINOSUKE KAWAGUCHI
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SPOTLIGHT ON THE FUTURE

A SILVER LINING TO JAPAN'S GOLDEN YEARS

Q&A *with* **MORINOSUKE KAWAGUCHI**



FUTURIST
MORINOSUKE
KAWAGUCHI

Futurist and innovation expert Morinosuke Kawaguchi advises the Japanese government and large Japanese corporations on how to deal with the technological and societal changes sweeping the country. Originally an engineer and later a management consultant, Kawaguchi

has authored many books, including Megatrends 2016-2025. We sat down with the futurist to discuss the challenges facing Japan.

What are Japan's most pressing problems today?

Probably the aging population. Japan went through great historical changes in a brief period of time, from the ashes of World War II to the heights of the bubble economy to a 20-year recession. It's a telescoped version of the life cycle of a modern economy. Today the Japanese are the world's oldest people, with an average age of 46. Japan is like a time machine giving a window on the future.

The forecasts for Japan after 2020 range from utopian to dystopian. Some say problems like cancer, aging, and sustainable energy will all be solved through IPS cells, robots, fusion,

and other technology. Others predict that the demographic crisis will seriously erode Japan's standard of living.

How can Japan prepare for a society with many more elderly people?

How to deal with the issue of aging and the resulting labor shortages is our biggest headache. One choice is immigration, but that's

not easy. Without immigration, more elderly people and women will have to work—and machines will have to do more work as well.

If we need people to work until age 75, we'll have to keep them healthy and motivated. One solution might be wearable robots such as those developed by Yoshiyuki Sankai of Cyberdyne. This is sophisticated mechatronics, which was once part of industrial robots, integrating with the human body. Another way is to improve the body itself from the inside via IPS [induced pluripotent stem cell] bio-tissue engineering. These are two hardware approaches.

On the software—or psychological—side, Japan needs to deal with problems like dementia. For that, we are already using communication robots that are smart but mechanically simple. An early example is Paro, the cute robot seal that was developed by a national research institute to interact with and comfort elderly people. The fact that our taxes are being used to develop robots for people with dementia shows that Japan is taking the aging issue seriously.

Big data and the Internet of Things can also be used to better understand the needs of seniors. Sensors can detect what elderly people are doing all day long as well as health information such as their heart rates. All this becomes big data to help us understand how to better meet the needs of the elderly.

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THE HOSPITALITY ON OFFER at traditional inns like this one is a value Japan should build on and export.



THERAPEUTIC ROBOTS named Paro, above, offer comfort to people suffering from dementia or depression. Softbank Robotics' humanoid companion robot Pepper, below, can detect and respond to human emotion.

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Japan failed to develop global consumer products in smartphones and drones. Is the country already too old to compete in the 21st-century consumer market?

Leadership in electronics has shifted from Europe to the U.S. to Japan to South Korea to China. When Japan was dominant, the pace of business was still slow, so we could make huge hierarchies for component manufacturing.

What's key for Japan now is to maintain this edge in the components market and on the B2B side. B2B products aren't exposed to consumer trends. There are fewer players, and the technologies are harder to copy.

What are Japan's greatest strengths going forward from 2020?

One is the Japanese desire to continue tradition. Fifty percent of the world's oldest companies are in Japan. That's because our goal in Japan is to keep going. Japanese businesses are not trying to make more money by eliminating the competition. They just want to continue the business so it can be passed down to the next generation. Japanese are more process- than results-oriented. The process itself is the purpose, and to enjoy the process is important.

Another Japanese strength lies in things like craftsmanship and hospitality.

Craftsmanship can be seen in everything from the making of traditional Japanese paper to the manufacture of condensers for air conditioners. Craftsmen are obsessive about what they do. In a way, so are the managers of traditional Japanese inns. The hospitality they provide is extraordinary. In both cases, the craftspeople and the inn managers are working in closed systems, limited to Japan.

The increasing importance of customization and individualism presents an opportunity for these small, near-field Japanese companies. If sophisticated artificial intelligence translation systems can connect them to the larger, English-speaking world, they'll be able to break out of the box and join the global market. That could be a source of growth.

How will Japan's demographics affect the 2020 Tokyo Olympics?

Japan is already a major tourist destination, but thanks to the 2020 Olympics, more people will come visit or see the country on TV. One thing that tourists are already noticing is how many elderly people work here. This is especially visible in the countryside, but even in Tokyo many people in their 80s are still on the job. By 2020, the number of active elderly will increase and the workforce for the Olympics is likely to reflect this trend.

Our population on average is 20 years older than it was when we hosted the 1964 Olympics. We had something to prove last time: It was two decades after World War II, and we built Tokyo Tower and the bullet train to make our mark. Now Japan is a mature country and it should show the world a mature Olympics. People are curious about us because we're their future as an aging society. We're on the front line of this phenomenon. Japan can offer the world a new, more positive attitude toward life and aging. ●

