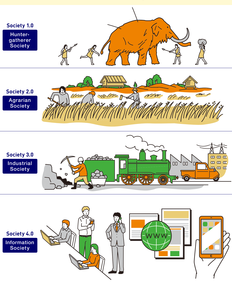
Realizing Society 5.0

We aim at creating a society where we can resolve various social challenges by incorporating the innovations of the fourth industrial revolution (e.g. IoT, big data, artificial intelligence (AI), robot, and the sharing economy) into every industry and social life. By doing so the society of the future will be one in which new values and services are created continuously, making people's lives more comfortable and sustainable.
This is Society 5.0, a super-smart society. Japan will take the lead to realize this ahead of the rest of the world.

The Road to Society 5.0

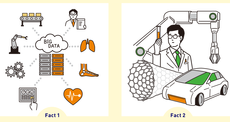


Defining Society 1.0 as the hunter-gatherer stage of human development, we have now passed through the agrarian and industrial stages, Society 2.0 and 3.0, and are moving beyond the information age, Society 4.0.

Entering Society 5.0

Big Data collected by IoT will be converted into a new type of intelligence by AI and will reach every corner of society. As we move into Society 5.0 all people's lives will be more comfortable and sustainable as people are provided with only the products and services in the amounts and at the time needed.

Japan has advantages that make Society 5.0 possible



Fact 1

Abundant accumulation of real data

Based in health and medical data from a universal health care system and a wealth of manufacturing robots in manufacturing facilities, Japan has an environment rich in real and usable raw data for use in the current market economy and industry.

Fact 2

Technology cultivated from "monozukuri"

Japan's advanced technology cultivated from "monozukuri" (Japan's excellence in the manufacturing field), as well as its strength in basic research, will work as advantages toward creating products using information technologies like Big Data and AI, which can then be released into our society.

By taking advantage of these unique factors, Japan will overcome social challenges such as a decrease in the productive-age population, aging of local communities and energy and environmental issues ahead of other nations. We will realize a vibrant economic society by improving productivity and creating new markets. By doing this Japan will play a key role in expanding the new Society 5.0 model to the world.

Society 5.0 will change the world

Healthcare

Issues

- Japan is facing an aging society ahead of other countries. The country is suffering from increasing medical and social security expenses and demands for caring for the elderly.

Solutions

- Connect and share information between medical data users including medical checkup records, as well as treatment and nursing care records.
- Provide optimal medical care services into practice.
- Use AI and robots at nursing-care facilities to support people's independence.

Before

After

By connecting and sharing medical data that is now dispersed in various hospitals, effective medical treatment based on data would be provided. Also, with remote medical checkups, that elderly people will no longer have to visit hospitals frequently. Also, you can measure and manage health data such as heart rate while at home, so that it will be possible to extend people's healthy life expectancy.

Mobility

Issues

- Population decline results in underpopulated rural areas which are unsuitable for public transportation.
  The fast growing e-commerce segment has seen a shortage of drivers.

Solutions

- Promote use of autonomous driving taxis and buses for public transportation to make public transportation more readily available.
- Improve distribution and logistics efficiency by introducing innovations such as a single driver cargo truck in a convoy using unmanned-following-vehicle system and by using drones.

Before

After

People in underpopulated areas find it difficult to shop and visit hospitals because of a lack of public transportation. However, autonomous vehicles will enable them to travel more easily while delivery drones will make it possible to receive whatever someone needs. A shortage of distribution labor will not be a worry.

Infrastructure

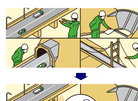
Issues

- Deterioration of public infrastructure developed during Japan's rapid economic growth period has created a shortage of skilled labor and an increase in the financial burden for inspection and maintenance.

Solutions

- Sensors, AI and robots will be used to inspect and maintain roads, bridges, tunnels and dams.

Before



After

By employing new technologies including Information and Communication Technology (ICT), robots, sensors for inspection and maintenance systems that require specialized skills, detection of places that need repair can be made at an early stage. By doing so, unexpected accidents will be minimized and the time spent in construction work will be reduced, while at the same time safety and productivity will increase.

FinTech

Issues

- A high proportion of Japanese money transactions are still conducted in cash and many procedures are cumbersome. Usage of IT in companies is limited and installation of cashless payment and convenient financial services is slow.

Solutions

- Use blockchain technology for money transfer
- Introduce open application programming interfaces (API) to FinTech firms and banks.
- Promote cashless payment.

Before

After

Overseas remittance is burdensome because you have to spend time and pay bank fees. Blockchain technology will reduce time and cost while assuring safety in global business transactions.

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