

Future Forecast Support Laboratory, DENTSU INC.

Survey of “Ordinary Citizens’ Vision of Life in 2028”

Toru Saito
Forecast Research Department
Solution Development Center
DENTSU INC.

Forecast Research Department, DENTSU INC. (Future Forecast Support Laboratory)

OFuture Forecast Support Laboratory provides various perspectives to analyze the future society, industries, and life, etc. after the Post-2020, by utilizing the “future forecast database” and the ideation method, etc.

Purpose of Survey

- The rapid technological innovation which is called the fourth industrial revolution has recently advanced in the fields of AI, robotics, IoT, sharing economy, FinTech, etc. Such innovation is expected to have a considerable influence on our lives in future.
- Also, the recent economic advancement in China, India, and Asian countries symbolizes the dynamic change of global economy in progress.
- Besides, in Japan, various domestic social issues, including the aging society with a decreasing population and the increase in the social gap between the rich and the poor, etc., have been arisen. Meanwhile, the importance of policy to realize the society where the diversity is respected and women, the young, and the elderly can play an active part has been recognized once again.
- In this survey, our purpose is to grasp how ordinary citizens actually consider various social changes and forecasted technology in the aforementioned “possible future”.
- This survey provides various perspectives regarding the vision of future which ordinary citizens regard as desirable, or the possible future which is expected to be realized.

Overview of Survey

- Date of survey: June, 2018
- Method of survey: Internet survey
- Target of survey: Men and women from 20 to 69 years old throughout Japan (1,000 samples)
Men and women are respectively divided into 5 groups (in their twenties, thirties, forties, fifties, and sixties), and each group has 100 samples.
- Number of questions: 32 questions (including one open-ended question)

“Desirable/Possible” Japanese Society in 10 Years

- ◆ Regarding the following 60 questions which describe the future society in Japan, we asked respondents about “desirability” and “possibility” of such future visions.

Japan	Japan will generate a new industry, and leap to the top of the world again.	Workstyle and Lifestyle	The evaluation of capability will become more proper, and a change of job will be regarded as natural.
	Japanese economy will get better, and Japanese citizens will enjoy an affluent lifestyle again.		Having a side job will be allowed in all companies, and the workstyle of having multiple jobs will be common to people.
	The social gap between the rich and the poor will be rectified, and the equal and appropriate distribution of social wealth will be realized.		The workstyle will be diversified (e.g. working at home, working at the countryside, etc.).
	People will have the thrifty mind in daily lives, and enjoy a simple lifestyle.		People will be able to feel happiness despite the low economic growth.
	Women will be encouraged to play further active role in the society, and the rate of women managers in companies will exceed 30%.		The labor productivity in Japan will be dramatically improved by the reform of work style.
	Japan will actively accept foreign immigrants, and an inclusive society is realized.		The married couple who both work full-time will be able to raise their children without difficulty.
	Japan will be at the top in the robotic development and the business where AI is utilized.		People will tend to choose their jobs to work for what they like rather than for money.
	Japanese contents business (e.g. animation, Otaku culture, etc.) will grow to be a major key industry of Japan.		The life in the countryside, rather than the life in Tokyo or other urban areas, will be regarded as the life with peace of mind.
	The number of tourists to Japan will drastically increase, and tourism will be a key industry of Japan.		The social system to enable the elderly to live with peace of mind will be realized.
	Japanese agriculture and food businesses will diversify into processing and distribution (the so-called sixth industrialization), and become key industries for the export and tourism.		The new style of living and housing which utilizes the increase of vacant houses will appear.
Society and Life	Japanese military defense capability will be increased, and it will gain worldwide recognition.	Technology	The electronic holography will be put to practical use, and the image where the technology of stereoscopy (3D) is utilized will be common to people.
	Patriotism and pride in Japan will be further bred.		If you blink at the wall screen, furniture, billboard, and even glasses and contact lenses, you will access to the Internet.
	Many industries, products, and services will be generated to solve the issue of aging society.		The technology of multilingual translation will be commonly used in daily lives, and TV phones and mobile devices with automatic translation functions will become a common sight.
	The ratio of renewable energy (e.g. wind power and geothermal power generation) will be drastically increased compared to the current level.		The automated driving system will be put to practical use in some fields in the workplace.
	The regional comprehensive care system will be socially established, and the issue of shortage of nursing care staff will be solved.		Electric vehicles and hydrogen vehicles will be low-priced and more common.
	The system to predict disasters in advance will be developed, so the damage can be minimized.		Generation, saving, and storage of energy (e.g. HEMS solar power generation) will be widely common to each family.
	Cyberterrorism will be eliminated by enhanced security countermeasures.		Environmentally friendly technology will be commonly used in many companies, factories, and cities.
	The drop in the birthrate will be stemmed, and the rate of decrease in population will be moderate.		The logistics and transportation where drones are utilized will be realized, and many drones will play an active role in the delivery of parcels.
	People will be more aware of health management in daily lives compared to the current society, and be aware of the importance to prevent diseases.		Humanoid robots will be introduced to the home life, and assist our daily lives.
	People will be aware of better choices and actions for environmental issues in daily lives.		AI will be commonly utilized in daily lives, and smartphones and AI speakers will play more important roles.
	All members of society who want to study will be able to have the opportunity of necessary education despite their ages.		Online orders of clothes, etc. will be easily available by utilizing our personal data.
	Sharing of assets in various fields (e.g. cars, houses, etc.) will be realized, due to the highly developed sharing economy.		The recommendation of food and exercise will be provided on the basis of the personal health data.
	Multigenerational people will support each other in their workplace and regional network (e.g. association with neighbors).		Every family will have a 3D printer at home, and be able to easily produce simple objects as necessary.
	Many nonprofit organizations will be established, and people will actively participate in the social contribution and volunteer activities.		The “smart house” where everything in the house is computerized will become a common sight, and the convenience in daily lives will be greatly improved.
	Companies, nonprofit organizations, and ordinary citizens will cooperate to solve environmental and social issues, beyond countries.		The solar power generation where the efficiency of power generation is drastically improved will be commonly used, and people will be able to generate most of the power energy to be used in their houses.
	Since many people will live longer and “the 100-year life” will be more realistic, the elderly will be able to choose various ways of working, consequently the age discrimination will be eliminated.		Robots with emotions will be introduced to people's houses.
	The gender discrimination and sexism will be eliminated, and people will be more aware of acceptance of diversity.		People will be able to purchase most food and daily necessities which are delivered from online supermarkets, without going to stores.
	The society will become friendly for people with disabilities in all aspects, including barrier-free designs.		A house will be able to be constructed by utilizing a big 3D printer.
	No one will have emotional resistance to the sexual minority including LGBT.		All purchasing actions will be cashless.
	The way of marriage will be diversified into the less restrictive relationship (e.g. trial marriage, commuter marriage, de facto marriage, etc.), compared to the conventional marriage.		

*In addition to the aforementioned questions, we also provided the option of “nothing is applicable”.

“Desirable/Possible” Japanese Society in 10 Years

Top 15 of “Desirable Japanese Society in 10 Years”

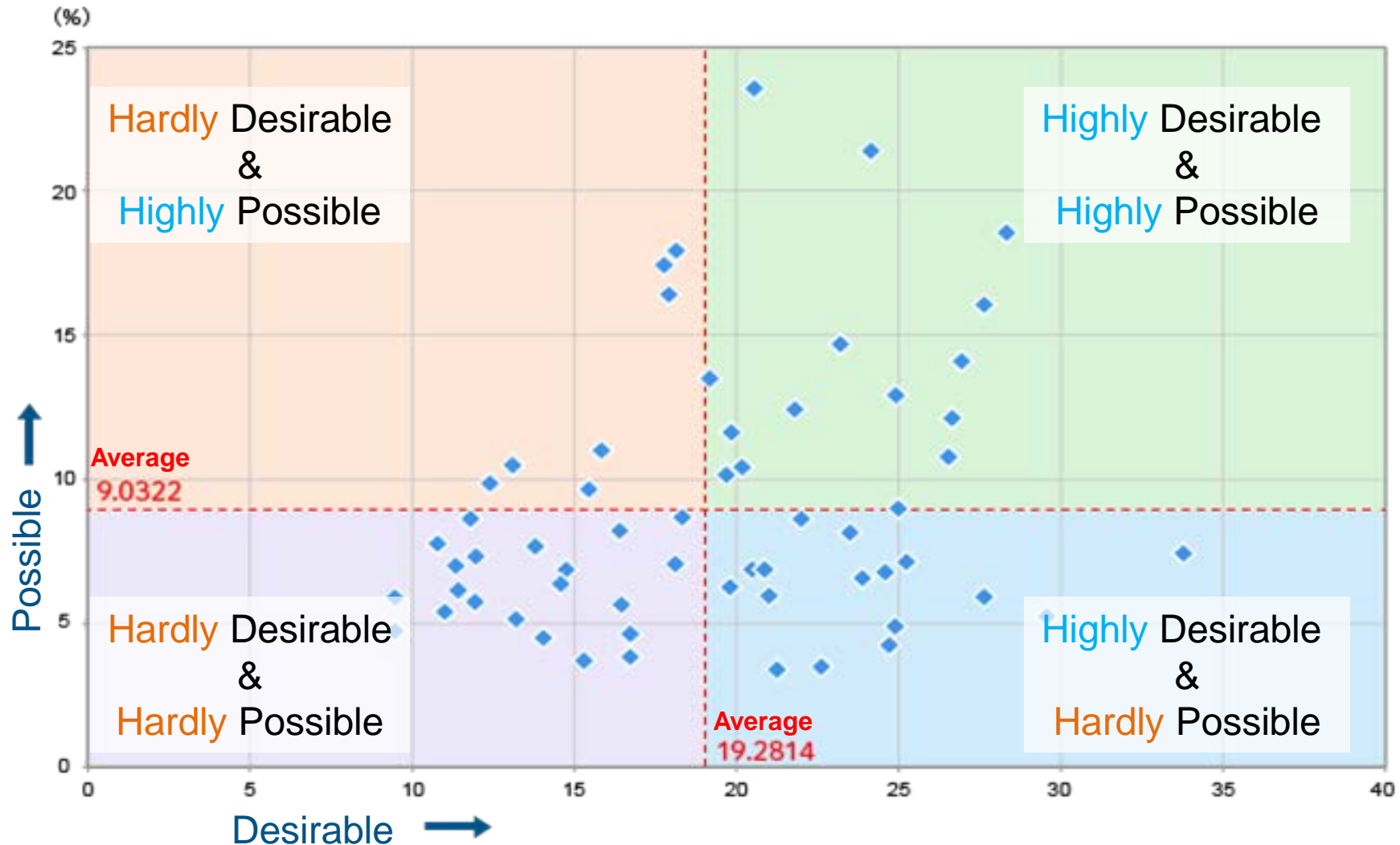
	Category	Details
1	Aging Society with Decreasing Population	The social system to enable the elderly to live with peace of mind will be realized.
2	Economy	Japanese economy will get better, and Japanese citizens will enjoy an affluent lifestyle again.
3	Technology	Electric vehicles and hydrogen vehicles will be low-priced and more common.
4	Workstyle and Lifestyle	The workstyle will be diversified (e.g. working at home, working at the countryside, etc.).
5	Economy	People will be able to feel happiness despite the low economic growth.
6	Aging Society with Decreasing Population	Many industries, products, and services will be generated to solve the issue of aging society.
7	Environment and Energy	The ratio of renewable energy (e.g. wind power and geothermal power generation) will be drastically increased compared to the current level.
8	Workstyle and Lifestyle	The married couple who both work full-time will be able to raise their children without difficulty.
9	Disaster Prevention and Security	The system to predict disasters in advance will be developed, so the damage can be minimized.
10	Diversity	The society will become friendly for people with disabilities in all aspects, including barrier-free designs.
11	Aging Society with Decreasing Population	The drop in the birthrate will be stemmed, and the rate of decrease in population will be moderate.
12	Workstyle and Lifestyle	The new style of living and housing which utilizes the increase of vacant houses will appear.
13	Disaster Prevention and Security	Cyberterrorism will be eliminated by enhanced security countermeasures.
14	Diversity	All members of society who want to study will be able to have the opportunity of necessary education despite their ages.
15	Technology	The automated driving system will be put to practical use in some fields in the workplace.

Top 15 of “Possible Japanese Society in 10 Years”

	Category	Details
1	Technology	People will be able to purchase most food and daily necessities which are delivered from online supermarkets, without going to stores.
2	Technology	The automated driving system will be put to practical use in some fields in the workplace.
3	Technology	Electric vehicles and hydrogen vehicles will be low-priced and more common.
4	Technology	All purchasing actions will be cashless .
5	Technology	AI will be commonly utilized in daily lives, and smartphones and AI speakers will play more important roles.
6	Technology	The logistics and transportation where drones are utilized will be realized, and many drones will play an active role in the delivery of parcels .
7	Workstyle and Lifestyle	The workstyle will be diversified (e.g. working at home, working at the countryside, etc.).
8	Workstyle and Lifestyle	Having a side job will be allowed in all companies, and the workstyle of having multiple jobs will be common to people.
9	Aging Society with Decreasing Population	Many industries, products, and services will be generated to solve the issue of aging society .
10	Technology	The technology of multilingual translation will be commonly used in daily lives, and TV phones and mobile devices with automatic translation functions will become a common sight.
11	Workstyle and Lifestyle	The new style of living and housing which utilizes the increase of vacant houses will appear.
12	Health and Nursing Care	People will be more aware of health management in daily lives compared to the current society, and be aware of the importance to prevent diseases .
13	Environment and Energy	The ratio of renewable energy (e.g. wind power and geothermal power generation) will be drastically increased compared to the current level.
14	Technology	Humanoid robots will be introduced to the home life , and assist our daily lives.
15	Technology	The “smart house” where everything in the house is computerized will become a common sight, and the convenience in daily lives will be greatly improved.

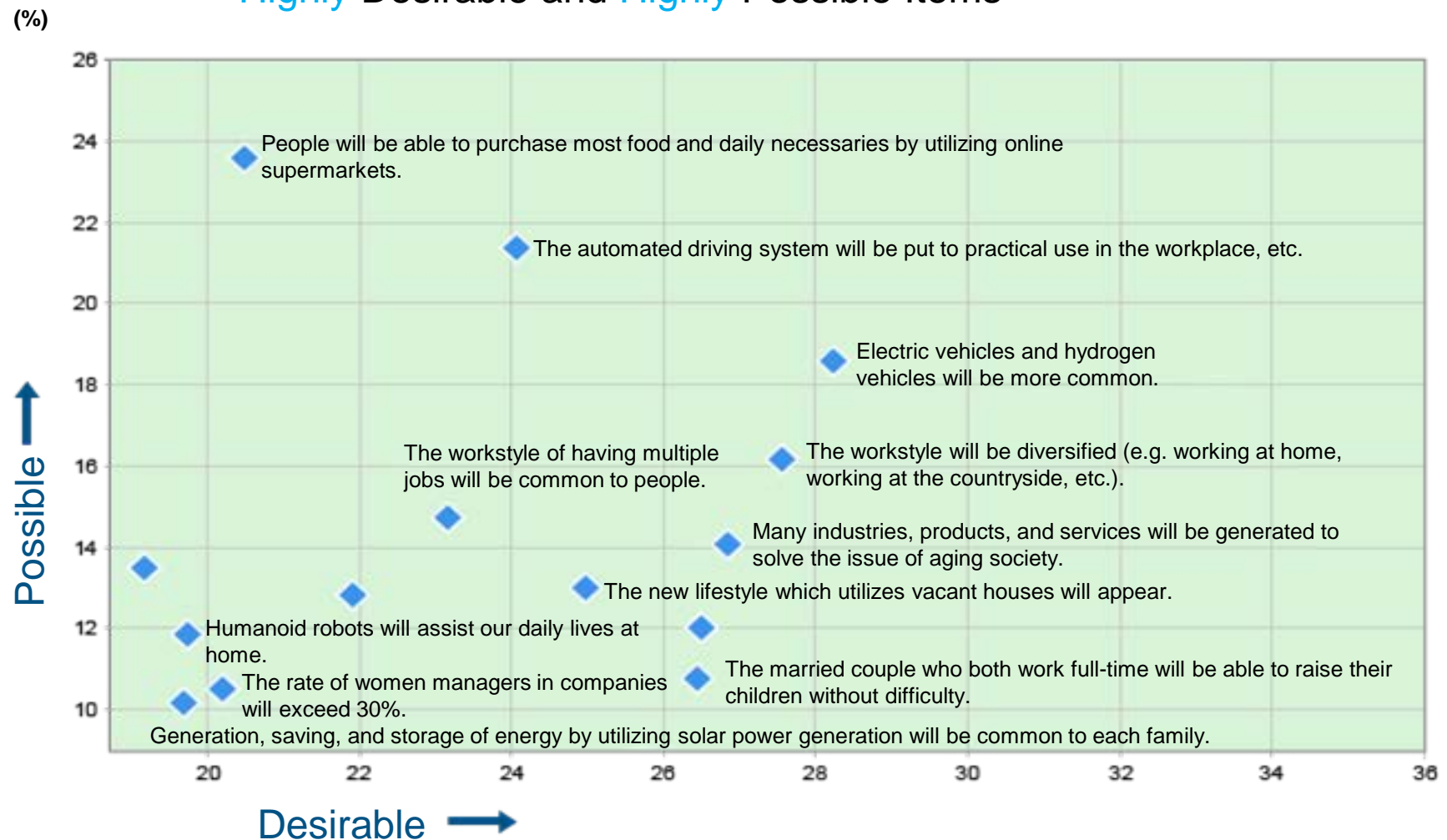
“Desirable/Possible” Japanese Society in 10 Years

◆ Answers of questions were plotted in the below figure with the degree of “possible” as the vertical axis and the degree of “desirable” as the horizontal axis.



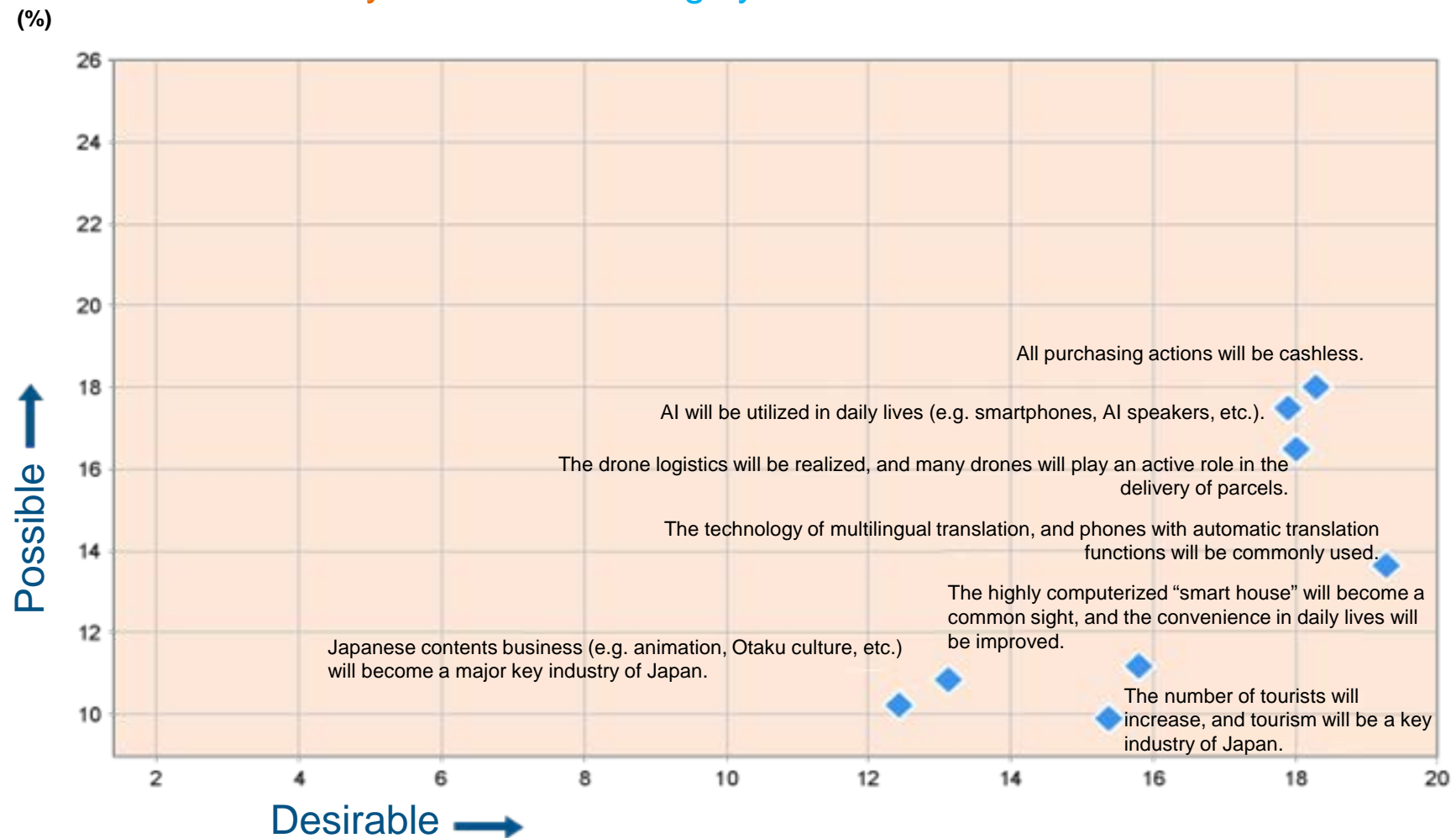
“Desirable/Possible” Japanese Society in 10 Years

Highly Desirable and Highly Possible Items



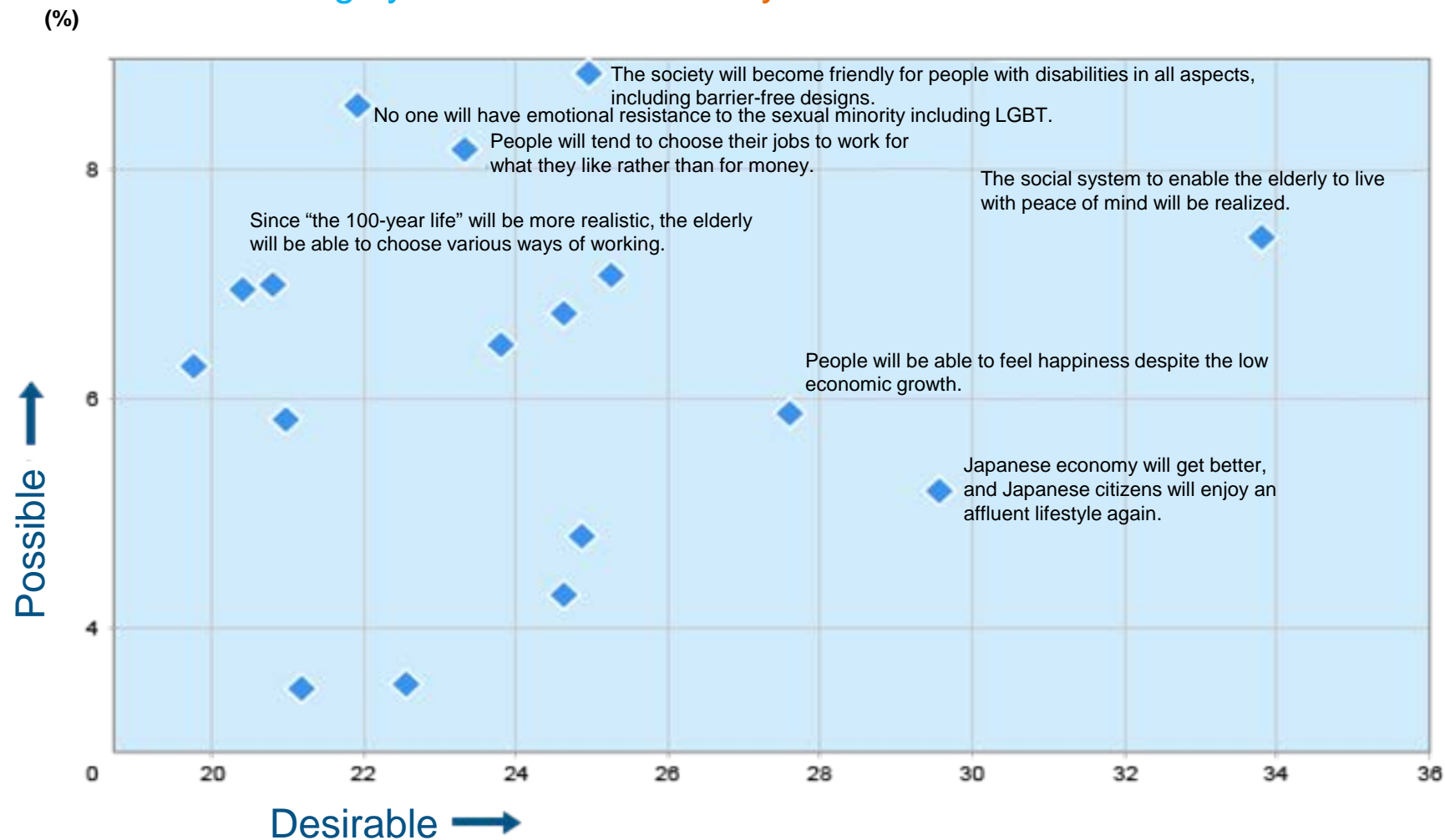
“Desirable/Possible” Japanese Society in 10 Years

Hardly Desirable but Highly Possible Items



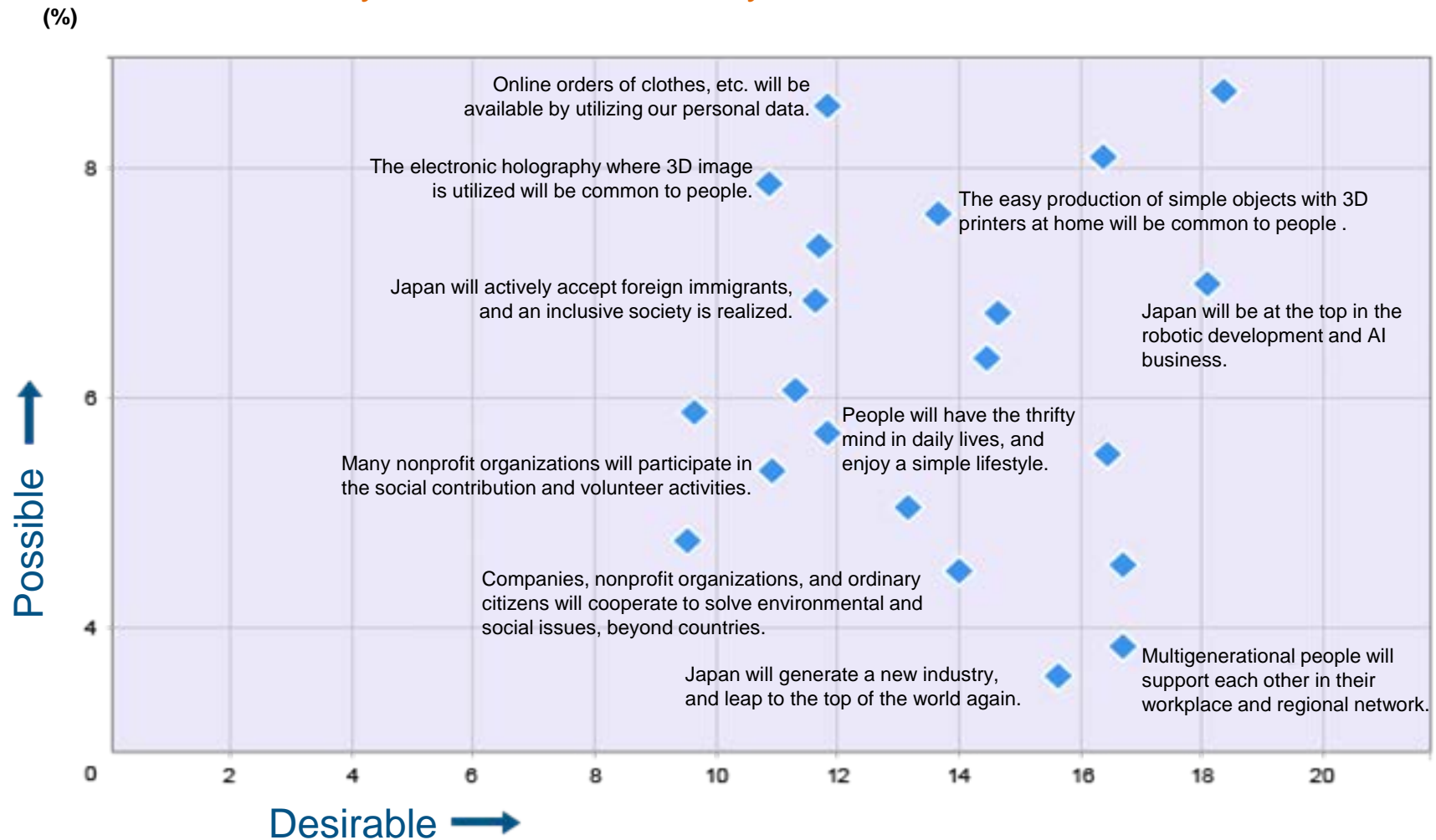
“Desirable/Possible” Japanese Society in 10 Years

Highly Desirable but Hardly Possible Items



“Desirable/Possible” Japanese Society in 10 Years

Hardly Desirable and Hardly Possible Items



“Desirable/Possible” Japanese Society in 10 Years

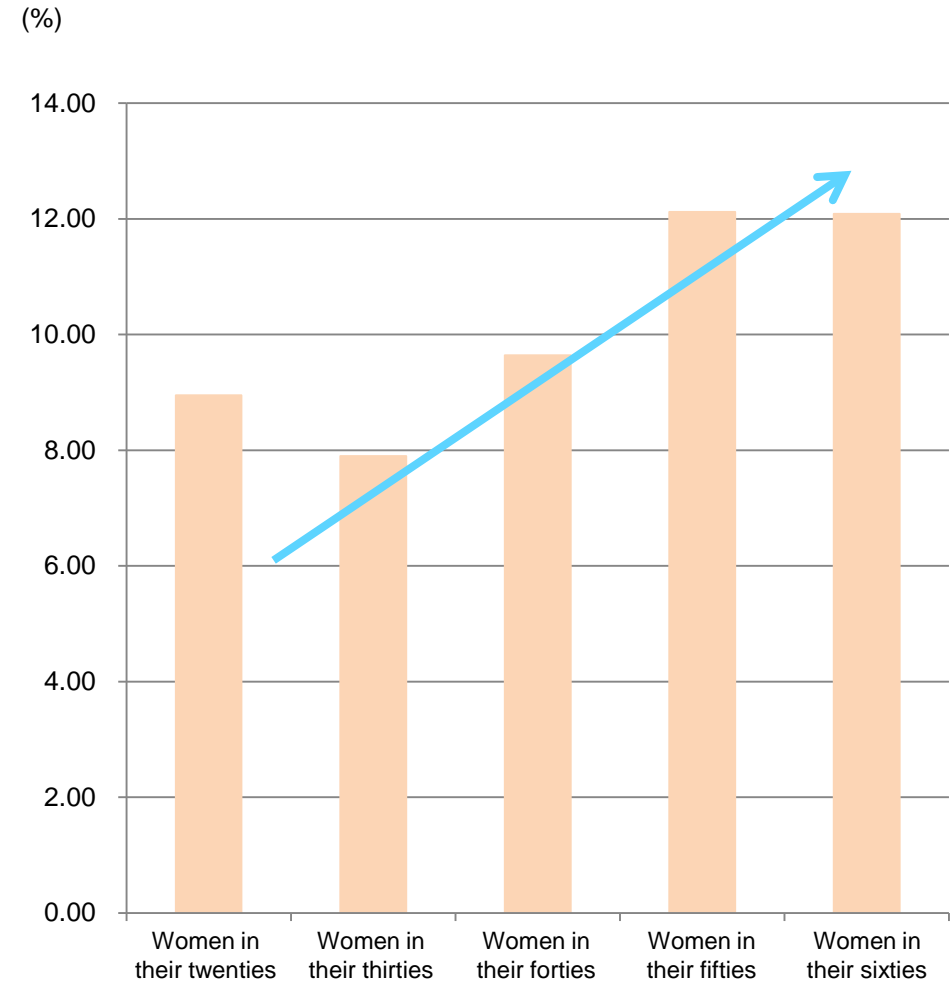
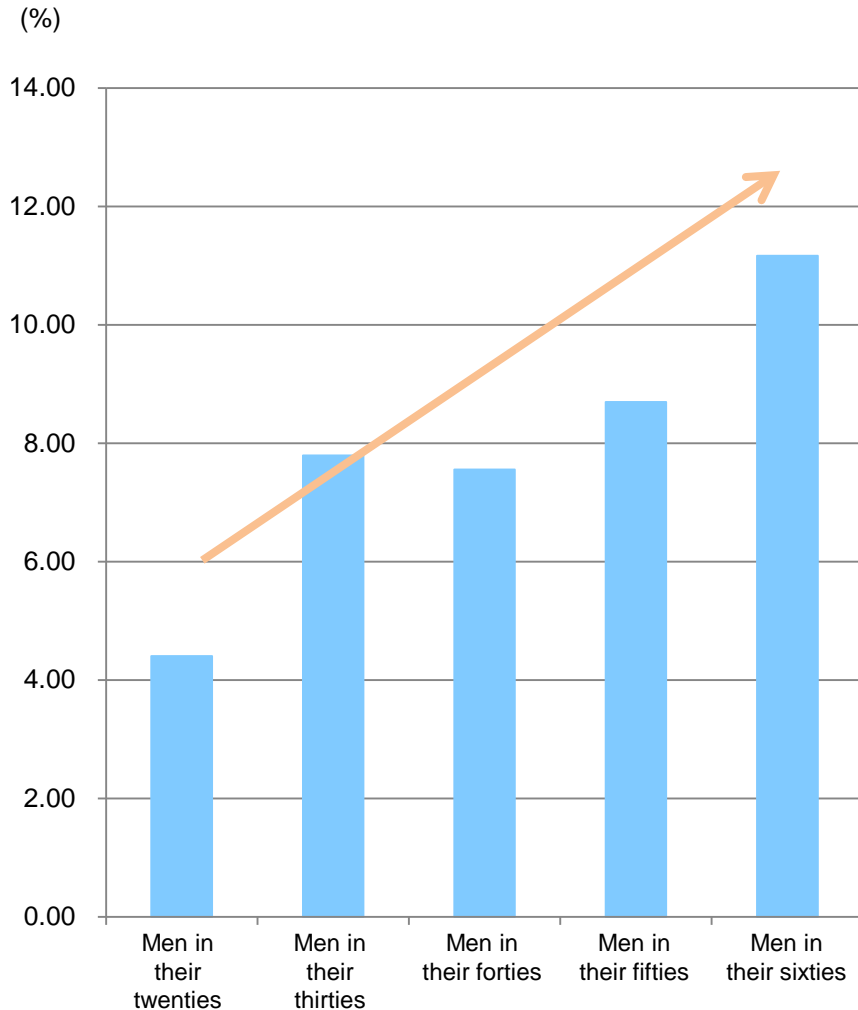
- ◆ We calculated the deviation from the respective percentage in the aforementioned 2 rankings (Top 15 of “Desirable Japanese Society in 10 Years” and Top 15 of “Possible Japanese Society in 10 Years”), and totaled the result to clarify the total top 10 items as follows.

Total Top 10

	Items
1	Electric vehicles and hydrogen vehicles will be low-priced and more common.
2	The automated driving system will be put to practical use in some fields in the workplace.
3	People will be able to purchase most food and daily necessities which are delivered from online supermarkets, without going to stores.
4	The workstyle will be diversified (e.g. working at home, working at the countryside, etc.).
5	Many industries, products, and services will be generated to solve the issue of aging society.
6	The social system to enable the elderly to live with peace of mind will be realized.
7	Having a side job will be allowed in all companies, and the workstyle of having multiple jobs will be common to people.
8	The new style of living and housing which utilizes the increase of vacant houses will appear.
9	All purchasing actions will be cashless.
10	The married couple who both work full-time will be able to raise their children without difficulty.

“Desirable/Possible” Japanese Society in 10 Years

- ◆ The below figures show the average percentage of responses to the 60 questions about “Desirable Japanese Society”, by gender and age.
- ◆ Generally, the older respondents become, the higher responses they make.



Possible Technology in 10 Years/Technology Which Has a Positive Influence

- ◆ Regarding the following 30 questions which describe the future technology in Japan, we asked respondents about “its possibility” and “whether it will have a positive influence (on the society) or not”.

Virtual medical treatment (For example, an excellent doctor from a great distance will remotely give a patient treatment.)
Self-driving vehicles (Self-driving vehicles can be driven on public roads without the driving of human beings.)
3D printer factories (Since “3D printer” will be able to produce various products from one 3D printer, many products will be produced at such 3D printer factories, after consumers' orders.)
Artificial intelligence/AI (The artificial intelligence which can communicate and judge matters all by itself like human beings will be commonly used in various scenes of daily lives.)
Singularity (The artificial intelligence which is smarter than human beings and continues to get even smarter will appear and change the society fundamentally.)
IoT (Various items (e.g. wearable devices, household electrical appliances, cars, etc.) will be connected to the Internet, and provide suitable services for each person.)
FinTech (Various and convenient financial services (e.g. easy payment by smartphones, and financial services and effective asset management by utilizing the artificial intelligence, etc.) will be available.)
AR/VR entertainment (AR/VR technology which enables us to have a virtual sight with reality by utilizing smartphones and special glasses will be developed, and various services (e.g. AR/VR amusement park, etc.) will be provided by utilizing such technology.)
Big data analysis (Various data including people's purchase of products, actions, and machines data will be accumulated, and various and convenient services will be provided on the basis of the analysis of such data.)
Renewable energy (The renewable energy (e.g. wind power generation, etc.) will be common to the society, and the rate of power generation from fossil fuel will decrease.)
Next-generation atomic power generation (The new and highly efficient atomic power generation will be realized, and the low-cost energy will be available.)
Smart city (The city will be more environmentally friendly by utilizing the storage battery and smart grid, etc.)
Nanotechnology medical treatment (The nanocapsule and nanomachine will be able to swim through veins of human beings, and enable the diagnosis and treatment which have been difficult in the conventional medical science.)
Magnetic levitation trains/ultra-high-speed trains (The high-speed train connecting Tokyo and Nagoya in 40 minutes, and Tokyo and Osaka in 60 minutes will be launched.)
Tailored treatment (The prevention of diseases which a person is prone to, and the treatment tailored to the person will be available by utilizing the personal genetic information.)
Simultaneous interpretation of foreign language by machines (Machines will be able to carry out simultaneous interpretation by utilizing AI, etc.)
AI robots (Robots will be able to help housework in accordance with human beings' verbal orders to complete tasks, by utilizing AI.)
Production of food in factories (Plants cultivation and breeding of animal will be automated by utilizing machines, and cheaper and more hygienic food will be provided.)
Innovation in development of new varieties of vegetables, fruit, and meat (The nutrient-enhanced or disease-resistant varieties will be freely developed in accordance with the purpose.)
Delivery by drones (Drones will deliver parcels to recipients' houses by flying in the air.)
Unstaffed convenience stores and supermarkets (People will be able to do shopping in the unstaffed store where the AI is utilized instead of cashier.)
Wearable computers (People will be able to operate smartphones and PCs from their glasses or wristwatches, and the Internet service which is far more convenient and pleasant than now will appear.)
Cashless payment (The payment by electronic money via smartphones, etc., without cash, will be available for all purchases and transactions.)
Online learning (The online learning system on the screen via the Internet will be major rather than the conventional face-to-face education.)
Nursing care robots (Robots which support nursing care staff, and assist a person requiring nursing care in acting at his/her own intention will be commonly used.)
Brain-machine interface (The special device will translate brain waves into commands capable of controlling external machines and equipment, consequently, people will be able to operate machines and equipment only by thinking about it.)
Solution to health and longevity (Lifestyle-related diseases, Alzheimer's disease, and cancers will be eradicated, and the healthy lifespan will become longer.)
Smart home (The home where its light is automatically turned off, the energy to be used is saved, and its door is locked, depending on the action of residents, will become a common sight.)
Smart business (An individual will be able to easily establish his/her own company (or start his/her business) by utilizing the cloud funding which enables the funds raising on the Internet.)
Ultra-lightweight electric vehicle (The electric vehicle for a single driver will be commonly used as a means of transportation for the elderly.)

Possible Technology in 10 Years/Technology Which Has a Positive Influence

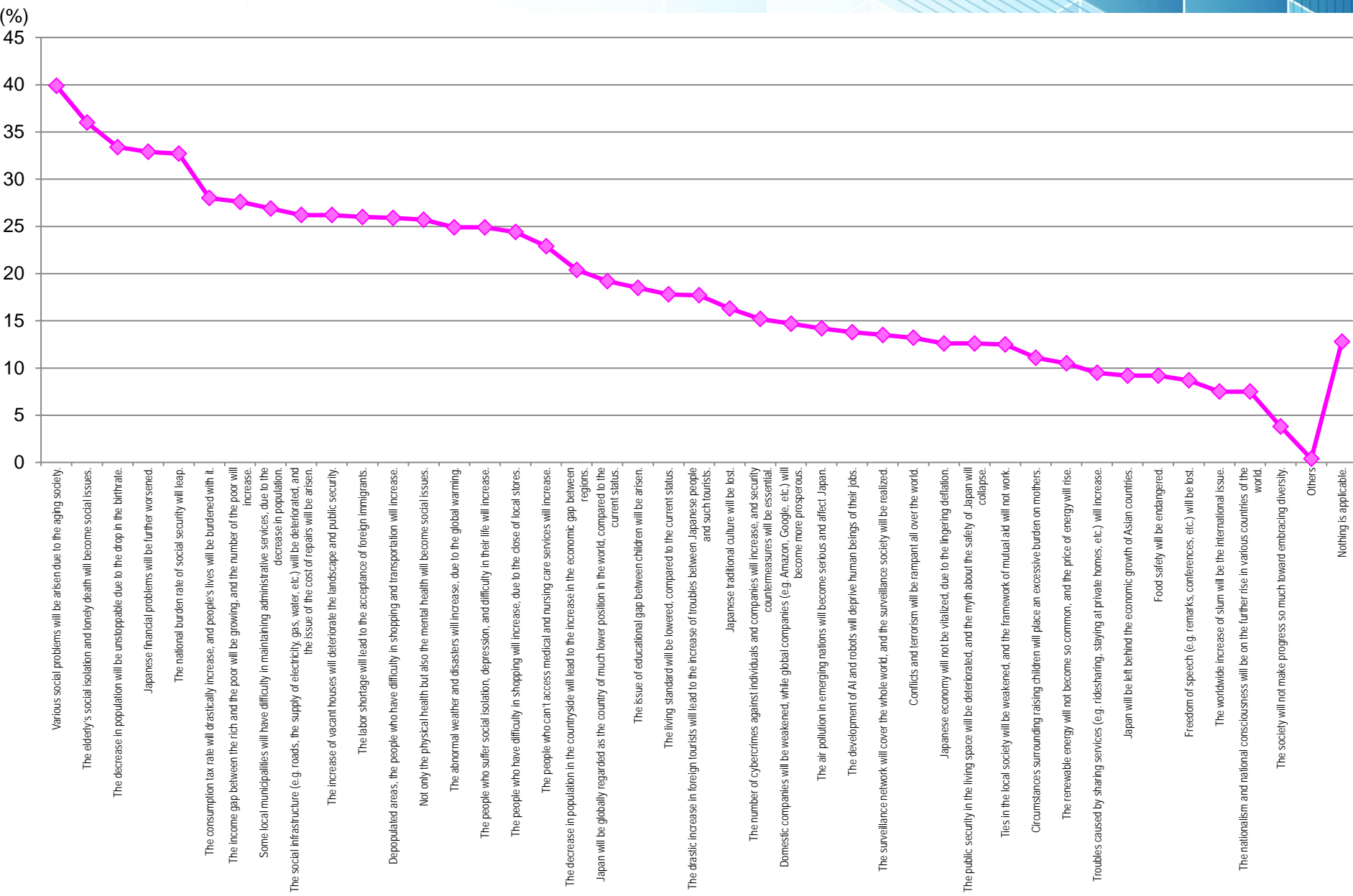
Possible Technology in 10 Years

	Details	%
1	Cashless payment	39.9
2	Self-driving vehicles	34.1
3	Artificial intelligence/AI	31.5
4	Magnetic levitation trains/ultra-high-speed trains	31.0
5	Delivery by drones	30.4
6	Unstaffed convenience stores and supermarkets	29.5
7	Simultaneous interpretation of foreign language by utilizing AI, etc.	27.7
8	Online Learning	27.1
9	Renewable Energy	24.8
10	Nursing care robots	24.3
11	Virtual medical treatment	23.0
12	IoT	22.1
13	AR/VR entertainment	21.7
14	AI robots	21.7
15	Production of food in factories	21.2
16	Smart home	21.2
17	Nanotechnology medical treatment	21.1
18	3D printer factories	20.8
19	Wearable computers	20.4
20	Big data analysis	17.5

Technology Which Has a Positive Influence

	Details	%
1	Self-driving vehicles	26.3
2	Magnetic levitation trains/ultra-high-speed trains	23.1
3	Nursing care robots	23.1
4	Simultaneous interpretation of foreign language by utilizing AI, etc.	22.8
5	Renewable Energy	22.5
6	Nanotechnology medical treatment	21.7
7	Cashless payment	19.4
8	Virtual medical treatment	19.2
9	Delivery by drones	17.7
10	Artificial intelligence/AI	17.3
11	Online Learning	15.6
12	Production of food in factories	14.5
13	AI robots	13.9
14	Smart home	13.9
15	IoT	13.7
16	Unstaffed convenience stores and supermarkets	13.4
17	Tailored treatment on the basis of the personal genetic information	12.2
18	3D printer factories	11.2
19	Solution to health and longevity	11.0
20	AR/VR entertainment	10.6

Issues and Social Problems Expected to Be more Serious in 10 Years



Issues and Social Problems Expected to Be more Serious in 10 Years

	Details		%
1	Aging Society	Various social problems will be arisen due to the aging society.	39.9
2	Aging Society	The elderly's social isolation and lonely death will become social issues.	36.0
3	Decrease in Population	The decrease in population will be unstoppable due to the drop in the birthrate.	33.4
4	Finance and Social Security	Japanese financial problems will be further worsened.	32.9
5	Finance and Social Security	The national burden rate of social security will leap.	32.7
6	Life	The consumption tax rate will drastically increase, and people's lives will be burdened with it.	28.0
7	Society with Economic Disparity	The income gap between the rich and the poor will be growing, and the number of the poor will increase.	27.6
8	Decrease in Population	Some local municipalities will have difficulty in maintaining administrative services, due to the decrease in population.	26.9
9	Social Infrastructure	The social infrastructure (e.g. roads, the supply of electricity, gas, water, etc.) will be deteriorated, and the issue of the cost of repairs will be arisen.	26.2
10	Social Infrastructure	The increase of vacant houses will deteriorate the landscape and public security.	26.2
11	Decrease in Population	The labor shortage will lead to the acceptance of foreign immigrants.	26.0
12	Life	Depopulated areas, the people who have difficulty in shopping and transportation will increase.	25.9
13	Life	Not only the physical health but also the mental health will become social issues.	25.7
14	Environment and Global Warming	The abnormal weather and disasters will increase, due to the global warming.	24.9
15	Life	The people who suffer social isolation, depression, and difficulty in their life will increase.	24.9
16	Life	The people who have difficulty in shopping will increase, due to the close of local stores.	24.4
17	Life	The people who can't access medical and nursing care services will increase.	22.9
18	Society with Economic Disparity	The decrease in population in the countryside will lead to the increase in the economic gap between regions.	20.4
19	Japanese Economy	Japan will be globally regarded as the country of much lower position in the world, compared to the current status.	19.2
20	Life	The issue of educational gap between children will be arisen.	18.5