# "Future of Work: 2035"

-For Everyone to Shine-

[Report]

August 2016

"Future of Work 2035: For Everyone to Shine"

Panel

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#### 1. Introduction: Creating a society where everyone shines

Japan is currently experiencing a population decrease and weakening labor force following declining birth rates and aging. Furthermore, rural areas are faced with the serious issue of depopulation.

Society should be a place in which all members, including women, men, young people, seniors, people with disabilities, people affected with serious diseases and people who have failed in life, have their turns and roles to find fulfillment in their works and lives.

It is diversity that creates new ideas, and generates small successes and innovation. Hopefully, society will enable diverse working styles according to each individual and life stages to coexist, and be available as choices.

Before discussing the outlook for 20 years from now, let's review how it was 20 years ago. In 1996, Windows95 launched the year before it was a huge hit in Japan, while the world was seeing the rapid beginning of the internet age that created a significant innovation.

Amazon, established in 1995, started as an online bookstore, and is now one of the leading IT technology companies in the world that delivers cloud services, in addition to comprehensive EC (electronic commerce) services. Google and iPhone generated groundbreaking change in people's lifestyles around the globe in the 2000s after the IT and internet bubble, and existing businesses were greatly impacted by the completely new and destructive innovations.

Added value has been shifted from hardware to software since the 1980s, and companies providing "services" and "applications" constitute the top positions in terms of market value. The coming of the knowledge information society through internet technology has reconfirmed that the roots of innovation are within people's ideas and thoughts. People of any age and sex can achieve "success," no matter how big or small the organization, as long as new ideas are materialized upon effectively leveraging the internet. "Opportunities" are now open to anyone around the world.

Kamikatsu in Tokushima is a beautiful small town with a population of less than 2,000 of which about 50% are seniors. Through trial and error and much creativity, the local leader and elderly women who were eager with ideas and

sense of purpose launched the "leaf business," and grew to an extent that a member earned 10 million yen annually. The elderly women make full use of PCs and tablets, conduct market analysis throughout Japan, collect leaves that meet demand, and deliver around the country. Sales rankings of all members are shared, and this is apparently what makes them motivated. Successful in creating a stage with roles and positions, the town's medical costs are low because the working population age is high, and residents "are too busy to be ill."

Mishima in Kagoshima, is a village comprising the three islands of Takeshima, lojima and Kuroshima. Although the smallest in the prefecture, with a population of about 400, about 60 elementary and middle school children and no high school, what it is working on is global.

Have you heard of the instrument called "djembe"? Originated in West Africa, the djembe is a drum played by hand without using sticks, and represents African culture by always being present in festivals and ceremonies. Through djembe, Mishima has deepened relations with the French-speaking Republic of Guinea for over 20 years. It all started in 1994 when a top djembe player who wished to interact with small villages visited Mishima and taught children how to play the instrument. Since then, the village holds a children's recital every year, with some young residents flying beyond Kagoshima and Tokyo to study djembe in Africa. When even cities have not established foundations to establish ties with Africa, this small rural island has built amicable relations through music. Mishima is indeed a demonstrator of "glocalization" in which local regions can connect to become global.

U.S. changes in work styles even go back further in time. In 1983, several software engineers working for a venture company utilized their PCs and slow-speed connections at the time, and changed office locations by season to nature-rich valleys, forests and places with quality snow, and the management of their client hardware manufacturers came to visit them. They were the first combination of a free and attractive work style that isn't bound by physical locations and time and users who permit that. This relationship demonstrates true partnership in which "a small team" is indispensable for a major company, rather than the concept of "customers are first priority."

Further technological innovations will cut down restrictions in time, space and information-sharing to zero by 2035 to mark an age where individual work style options will be full of variety, in addition to large transitions in industrial and employment structures.

This great technological innovation centered around AI (Artificial Intelligence) will rapidly and significantly alter economic structure. For the Japanese economy, this will be a huge opportunity. The change may considerably contribute to solving issues currently faced by the country, and its benefits will positively impact regions with declining and aging populations and urban areas alike. The agriculture, forestry and fishery sector, in addition to the so-called IT sector, is expected to see remarkable improvements in productivity and profitability through incorporating AI.

Technological innovation not only benefits corporate performances, but also may potentially generate significant improvements to all people who work. This is because physical restrictions for work locations will disappear, and many jobs will be doable at any time and any place. It is essential, however, to develop new labor policies in time or in anticipation of technological innovation so that all workers and the economy overall will benefit. This report will discuss the matter in detail.

The future generations of Japan will hopefully be able to fully utilize technological innovation in "areas of preference and strength" on an individual level to become unlike any other in the world by developing such new labor policies without delay. The report hereby proposes "Future of Work 2035: For Everyone to Shine" to create an attractive society for Japan.

#### [Reference]

Kamikatsu, Katsuura District, Tokushima http://www.kamikatsu.jp/ Irodori Project http://www.irodori.co.jp/asp/nwsitem.asp?nw\_id=2 Mishima, Kagoshima http://mishimamura.com/

#### 2. Society in 2035

#### 2. 1 Aging society with a decreasing birthrate

In 2035, Japan is predicted to have a population of 112 million, decreasing from the current 127 million, while the world population is expected to increase from 7.3 billion to 8.5 billion. Meanwhile, its aging population is projected to increase due to improved longevity, with the ratio of seniors increasing to 33.4% from the current 26.7%. While participation of seniors, women and international human resources in the workforce are strongly called for to increase the working population, it is up to us on how we act for the next 20 years in terms of whether or not we can realize a society and environment where various types of people can truly work comfortably. Therefore, we need to immediately start thinking seriously about the future we want to work for, and follow each and every step to achieve this.

Forecasts of the number of workers by industry predict that only the information and communication, medical and welfare, and "other" service industries will increase, and all other industries are projected to decrease. New services with added value need to be developed towards 2035 upon increasing efficiency and reducing labor upon leveraging the latest technology for industries such as medical and welfare.

#### 2. 2 Current state and predictions of technological innovation

Technological innovations have continually contributed to management innovation, improved business efficiency and lifestyle evolution. New businesses, products and services created have become indispensable tools that support diversity in ways of communication and work styles, operation and maintenance of communities, and have solved societal issues as well as enhancing convenience and productivity.

Considering the advancement of technological innovation is a common global assumption when viewing the outlooks of future society while bearing in mind the previous changes realized.

#### ◇Processing speed and communication technology

Although there are limits in Moore's law, performance has evolved to 1,000 times in 12-year cycles until now, and supercomputer performance after 2032 is

forecast to exceed 10<sup>21</sup> (1 sextillion), or 1 ZFlop/s. Mobile communication has improved by 10,000 times in the 30 years since 1985, and is predicted that it will be faster than 10Gbps for 5G, and over 100Gbps by 2035. Most of the world's population will be connected through high-speed mobile communication.

#### **♦**Sensors

Although there are discrepancies between forecasts, it is said that society will come to utilize trillions of sensors annually as connective devices someday. Biometric sensors for brain waves and smell will also bring innovation in medical fields and other areas.

#### **◇VR (Virtual Reality), AR (Augmented Reality), MR (Mixed Reality)**

VR and AR are currently in their practical stages and are being utilized in the medical field, educational field, and also in the business world to share design images, explain products and to try on clothing. Further developments will make them compact and easier to use. The craze for games using AR demonstrates the significant impact. MR advancement will greatly change meetings to the extent that colleagues far away will feel like they are in the same meeting room, and with limitations in telework gone, users won't be able to tell the difference from real communication.

#### **♦**Transportation technology

In terms of physical transportation, traffic congestions will likely decrease through automatic driving and optimal guidance, with transportation and logistics productivity dramatically improved. Bullet trains and airplanes will be even faster, and 24-hour hub airports will become easily accessible. The travel time of linear trains between major cities will widen options for places to live and work. The optimum solutions for the shortest travel time with the lowest cost will be automatically displayed from schedules for door-to-door transport in order to reduce restrictions in transportation.

#### 

There has been increasing attention towards AI internationally in recent years, and the technology will further impact society overall in terms of industry, employment and work styles. AI today is focused on data-based machine learning and deep learning technologies following the development of Big Data

and accelerated calculation technology.

One type of AI technology is the so-called "synthetic intelligence," otherwise referred to as the "adult AI," and uses Big Data as a background together with conventional AI technology to develop various industrial applications. A leading example of this is Google, which used its search technology to develop businesses that connected online advertisements, and is also leading the world with its AI technology. The other type of AI is the so-called "labor machine" otherwise referred to as the "child AI," and particularly brings innovation to the real world through improved perception levels of machines through deep learning.

#### 2. 3 Impact of technological innovation

Jobs that were previously done be humans such as banking operations, train station ticket handling and robot usage in production sites have gone through changes with technological innovation. How will the roles of AI and people change through AI advancement?

#### (1) Jobs that Al is good at

Starting with advertising and marketing, adult AI technology will be used to cover many fields, including education, finance, medicine, and even law and human resources. Although routine operations where some levels of errors are tolerated will replace humans, not all jobs will be replaced, and AI will instead assist humans for the remaining jobs.

On the other hand, child AI is expected to create a change in fields such as security, anti-theft, agriculture, logistics, architecture, construction and everyday chores such as cooking and cleaning. In such cases, AI will replace the entire task, including recognition, so that they will do the actual tasks instead of humans. However, jobs that require comprehensive determination or handling of exceptional events (supervision operations) such as security actions after detecting abnormalities, and decisions after detecting cancer in medical images, will be left to humans.

Thus, jobs that are likely to be replaced are those that require specialized knowledge but are routine operations. The working style of jobs that demand recognition and knowledge of movement but do not ask for wide-range decisions may substantially change.

Nevertheless, new types of jobs that only humans are capable of are sure to be created, and these are likely to be jobs that are grounded on human nature. Even if technology can automatically come up with creative content, for example, only humans can determine whether or not they are really interesting. Value assessment based on human nature (determining whether or not something is interesting, beautiful, tasty, good, evil, etc.) cannot be reproduced based on simple principles, and it is thus inevitable for humans to do this new type of work.

#### (2) Jobs that humans are good at

How would added value for companies and individuals change with the advancement of AI? If they can be patterned, even jobs that require expertise are very likely to be automated by AI. In that case, parts that demand expertise and parts that don't need to be separated so that individual capabilities will view the parts that require their expertise.

In addition, job that will become important include "human touch" jobs. People become very satisfied from services delivered by people. A significant part of this is backed by instincts fostered through a long process of evolution as a social animal, and technology cannot change this so easily. The ratio of service industries within the industrial structure has been further increasing, and this trend is expected to accelerate even more. For example, robots and machines can take care of customer service in the retail industry for business categories that focus on providing products at low prices, and business categories with high added value may differentiate from this and hire humans for service.

Another key job would be entrepreneurship. Paradoxically speaking, if intermediate jobs are to be taken over by Al and robots, humans will be required more to be involved in corporate management and planning. Entrepreneurship is an important human job in this sense. Corporate forms in which jobs for humans are mainly service and product development that interpret needs and robots or Al will offer them, and will likely become popular. These companies will also be compact organizations that possess speed.

Automatic translation technology will be an extremely important change for Japan. The country's economy and society are expected to be significantly impacted once language barriers have become obsolete through automatic translation. This would mean that excellent human resources would move to places where they are valued the most, regardless of country, for work, education and medical service, and talent would increase in liquidity. Japan

would be tested again by working people on how attractive its environment and systems are.

Through such developments in technological innovations, seniors who work with liveliness will become part of the everyday scene by 2035. Jobs with few applicants and master mechanics in which training successors are challenging will likely be supported by AI robots and resolve these societal issues. Robots helping with household chores such as cleaning and cooking will make the balancing of family and work easier, and minimize costs.

New businesses, services and companies created by innovative ideas will create new employment. The new employment shall ideally exceed the number of jobs lost through technological innovation. A structure in which companies and society overall can flexibly respond to individual circumstances is imperative when work styles become more diversified.

Intellectual jobs can be done anywhere in global environments, and performance assessments, fair work styles and compensation systems will thus become more important.

#### 3. Work styles in 2035 for everyone to shine

#### 3. 1 Work styles unconstrained by time and space

Technological innovation as discussed in Chapter 2 greatly impacts work styles. One of the changes anticipated is that physical constraints pertaining to work locations will disappear, and many jobs will become possible at any time from any place.

Back when there was no internet or mobile devices, most tasks couldn't be done unless many people gathered in the same room at the same time to work together. Today, however, information technology has made significant advancements so that people can communicate online to complete joint projects without being in the same workplace. Moreover, group work can be done without necessarily working at the same time by leaving task records on the network, for example. This trend will further make developments towards 2035.

Of course, people still have to be present in some workplaces, such as for work in factories. But the majority of these physical tasks will most likely be taken over by robots by 2035.

These changes by no means imply that people will always "be made to work" anywhere at any time. It is important that by 2035, each person can choose their own working location and time as they wish, and be able to choose their lifestyles. Technological innovation shall be aggressively leveraged to achieve this kind of society.

The "time" in which workers were actually in their workplaces was the key indicator when group work had to be done by physically being in the same place at the same time. However, performance-based assessment that won't determine payrolls just through "time" worked will be more important to smoothly shift work styles to those not constrained by time and place. Unnecessarily long working results will be eliminated as a result, and corrective actions can be taken as well.

#### 3. 2 Creating work styles with a stronger sense of accomplishment

By 2035, society will also encompass "working" as a behavior taken with diverse purposes not limited to earning money, including social contribution, mutual support in neighborhoods, coexistence with communities, and sense of accomplishment.

Instead of making someone work or having to work for someone, society will be developed into a place where everyone mutually supports one another, can each exhibit what they are good at, work with liveliness and have places to participate in. This would mean "working" will be expected in autonomous and diverse styles by independent individuals. The definition and meaning of "working" will thus change substantially.

To make this happen, necessary skills development and education should be fully offered to all generations, and diverse places of self-fulfillment that include social contribution should also be made available.

#### 3. 3 Increase in free work styles will also change corporate organizations

Technological innovation not only changes work styles, but also significantly alters the way companies and the economic system are. As more work styles become independent and free, companies will also be required to become flexible organizations that leniently allow such work styles. Moreover, companies themselves would have no other option but to quickly change, because the speed of change will become faster.

Companies acted as a state or community during times when it was important to physically share space and time. There will inarguably be companies that will attempt to maintain this type of organization, but they will most definitely be a minority by 2035. Such changes from the corporate side will further enhance the freedom and flexibility levels of people's work styles.

To be extreme, companies in 2035 will be a cluster of projects with clear missions and objectives. Many workers will be a part of that company during the project, but adopt a work style in which they will flexibly move within and outside companies according to changes in business content so that they will move to a different company after the project ends. As a result, the border between corporate organizations will become ambivalent, and "full-time employee" systems that are used to keep personnel will be forced to undergo changes.

Projects may, of course, continue for several decades, and more than a few may be unclear on when they will be completed. Moreover, some workers may continue to work for the same company for a long period of time by participating in a different project of that company after a project ends.

Categorizations of "full-time employees" and "temporary workers" by the length of employment and employment guarantee eligibility will hold no meaning.

As such, there will be considerably more workers who freely move between companies by 2035. It is essential to develop a structure that easily allows such transfers until then, and society should become a place in which information on capability and assessment of individuals will be shared more extensively.

#### 3. 4 Workers choose their work styles

As companies transform into project-type organizations, workers will also start choosing projects according to their preference and needs. Consequently, companies will need to make efforts to attract workers optimal for their projects.

With more freedom in working style options, workers will also not need to use all their working time for one project. Some workers will naturally allot their time for multiple projects. While some workers may work on one project for a single company, other workers may simultaneously work on multiple projects for multiple companies.

The line between sole proprietors and employees will further become ambiguous as a result. As the meaning of belonging to an organization will change, some workers may belong to multiple organizations in multiple levels. Furthermore, they may be non-profit projects, projects working for social contribution and projects centered on self-fulfillment.

Although there are workers who belong to both commercial and non-profit organizations even today, this work style may become popular by 2035. It may become natural for workers to be a part of projects for multiple commercial and non-profit organizations, and change over time.

#### 3. 5 Relationship between workers and companies

The concept of only workers working full-time becoming full-time workers will not make sense if workers start choosing their working hours according to their job content. Likewise, the categorization of full-time and part-time would also lose meaning for workers who work less.

Second jobs, side businesses and even multiple jobs will become normal. Many workers will probably possess multiple jobs to generate income. But having multiple jobs does not necessarily mean they are for monetary compensation, and may be mainly for purposes such as social contribution. As such, people can achieve more diverse work purposes by working multiple jobs.

In addition, workers can strengthen negotiation power to reduce risks of unfair labor conditions and compensation because they no longer need to fully rely on a single company.

Compared to today, people will naturally be less conscious of "landing a company" if such a work style becomes popular because it will be normal to work in professional jobs upon mastering professional skills. In other words, workers will literally "land jobs" according to the type of professional skills they acquired.

Professional skills need to be updated according to changes in the environment, however, when considering the speed of technological advancements. Society needs to allow for a flexible "change of occupations," even when workers have "landed jobs" for a career.

Some major companies may continue management that involves loyalty amid diversification. However, worker needs will not be satisfied by working for a large company like before, and companies will be perceived based on how many opportunities and self-fulfillment chances are provided. Company owners will likely be required to brush up on their company's personality rather than expanding its size to be chosen by workers.

#### 3. 6 Changes in work styles revolutionize how communities work

Corporate transformations following the significant changes in individual work styles will also cause a great shift in how communities work. Companies have previously acted as a state, community or family instead of merely providing a place to work. This was particularly prominent in large traditional companies.

In a society where independent individuals work with freedom based on diverse values, however, a sense of belonging for workers will fade, and it will become challenging for companies to function as mock communities. The role of community that companies have played will certainly be substituted by something else.

The roles of local communities may gain importance again if people focus more on lifestyle. Mutual aid in local communities may support workers. On the other hand, it is without doubt that virtual communities created through social media have gained a stronger position. ICT development has drastically added reality to virtual communication.

Therefore, a shared awareness of working in the same occupation or field of expertise will become stronger compared to a sense of belonging from working at the same company, and result in creating mock communities on social media. Collaboration through such mock communities shall contribute to a fairer power relationship when individual workers agree to contracts with companies.

To respond to these changes, labor unions should also evolve into an organization that is suitable for a future that utilizes social media, AI, VR and various technological innovations by additionally focusing on collaborations by occupation and region in addition to management by company and industry.

#### 3. 7 New ways in rural areas that directly connect with the world

Cities and rural areas are both expected to be very different from now in 2035. In particular, residents in rural areas are likely to be able to work on creative jobs as if they are living in cities, while enjoying the great nature after constraints in working locations vanish following IT technology development. Living a local-based yet satisfying lifestyle will also be made possible upon utilizing skills acquired through practical higher education while balancing childcare, work, nursing and hobbies.

Industries will no longer be divided into primary, secondary and tertiary sectors as they lose meaning, and with diverse resources flowing into rural areas, more young people, women and seniors will earn money through agricultural diversification.

Moreover, regional cities, small towns and villages will find it easier to directly connect to the world, and predicted to provide local values internationally. "Glocalization" in which local communities can also connect globally is anticipated.

#### 3. 8 Society in which nursing and childcare do not become constraints

For certain, a lack of personnel will be even graver by 2035 following the significant decline of the working population. Amid such circumstances, automation and robotization through AI and other advancements in science and technology are anticipated to liberate workers from the burden of nursing, childcare and household chores. It is important that diverse and high-quality services and businesses that enable outsourcing of nursing, childcare and household chores will be more readily available, and that nursing and childcare will not constrain working.

Moreover, workers who wish to nurse or take care of their children themselves should find it easier by then to make a considerable amount of time or take time off from work after work styles change to include more freedom.

Needless to say, infrastructure development for childcare and nursing is vital. The right to receive high-quality childcare and education desired for all children from age 0 should be established. It is imperative that all requests by parents who wish to enroll their child in nursery schools and other facilities that prompt growth through groups should not be turned down.

Furthermore, after-school care programs should establish a system in which all elementary school children who wish to enroll can be accepted so that children and their guardians can choose how they will spend after-school hours no matter what their economic situations are.

For nursing, it is predicted that preventative measures will be thoroughly taken before seniors start requiring nursing care through health management systems, and nursing robots will greatly reduce the burden of care. In addition, the workload for workers in terms of nursing will be significantly cut without having to apply for nursing homes, by being able to monitor their homes through remote safety management systems and having transportation tools that facilitate transport of family members requiring care.

Furthermore, the overconcentration to Tokyo may change through workers being able to work from anywhere through changes in work styles and utilization of IT technology so that they can choose to live in an environment rich in nature while being close to their workplace, childcare and nursing facilities.

# 3.9 Going beyond all "borders" of sex, race, nationality, age, sexual orientation, and disabilities

Once diverse work styles that won't be restricted by space or time become popular, restrictions such as differences in sex, race, and national borders will drastically become nonexistant. There will be a day in which everyone can choose their work style according to their capabilities and preference, and the freedom will create harmony to society.

Jobs and services will easily go beyond borders if communication barriers between languages are lowered by Al development. A service may feel as if it is being delivered right next to the user through VR technology, but the provider may actually be on the other side of the world speaking a completely different

language. This type of technology incorporated in routine operator tasks and office processing operations has already started to appear in networks across borders, but these cases will definitely become the norm in many more types of jobs by 2035.

If customary work styles, systems and regulations continue to be Japan-specific, however, workers in Japan will become "Galapagos-ized" and many jobs will cross borders to be dispersed around the globe. A structure that accepts everyone, including international resources, should be developed in addition to working style systems and structures to prevent this.

Or even more importantly, Japan needs to establish a structure with the top level of freedom in the world so that people will proactively choose the country to physically live and work in, like its goal to become "the world's most comfortable place to work."

Society and systems should be developed so that sex, race, nationality, age, sexual orientation and disabilities would never become "barriers" in working and living. The latest technology such as Al and IT need to be fully leveraged to achieve this.

#### 4. Systems for 2035 for everyone to shine

#### 4. 1 Basic perspectives required

As discussed above, individuals will be able to work in diverse work styles by 2035, and society will have significantly changed to one that allows autonomous activities through fair contract with companies and business owners. Corporate organizations themselves will also go through transformations so that the boundary lines in front of companies will become lower, and lead to a significant structural change in which more individuals will start independent businesses.

When assuming these changes will occur, legal compensation and measures necessary for labor are required upon expansion of the scope and redefinition of employment relations and employers by also including a more diverse range of workers. Discussions on redesigning the legislative system from a much broader perspective, apart from conventional labor policies and legislation, will become necessary. More diversified work styles, as discussed in the previous chapter, will also be subject to some form of contract. From this perspective, the Civil Code of Japan will be the foundation for all work activities as long as there are contracts involved. For contracts where there is freedom and equal power between the parties, it is ideal to have free economic activities and competition occur under the framework, with both parties being capable of conducting fulfilling activities with diverse purposes, including non-monetary goals such as emotional fulfillment.

In reality, however, such mechanisms may not fully function. Legal allowances and measures necessary that should be added to the Civil Code (civil rules), or used to revise traditional framework of labor laws, need to be organized first with a view towards 2035.

#### (1) Structure for appropriate information to spread

The major premise for market mechanisms to effectively function and satisfy each party through free activities and contracts is to agree to contracts upon decision-making with enough available information. Economic activities with insufficient and incomplete information will be a primary factor of disrupting people's productive activities. Of course, transactions and contracts without enough information occur more or less in all economic activities. The percentage in which sufficient levels of information for working activities, such as for actual job contents and the skills/motivations of workers, are difficult to acquire and

considerably high compared to other economic transactions. From this perspective, conditions are expected to somewhat improve by 2035 following innovation in information technology. However, a system in which the level of information discrepancy is reduced as much as possible so that each party can work in good conditions is necessary.

#### (2) Providing security/insurance functions

The difference between a work contract and normal contract, such as a purchase agreement for a product, in a broad sense is that one is intimately connected to real lifestyles while the other isn't. For cases in which independent and free work styles are assumed as well, allowances in some form would be necessary for life-threatening, harsh work environments that cannot be left only to the worker's responsibility, for example. Insurance functions will also be necessary such as having workers acquire enough income for humane lifestyles as a member of Japanese society, or to prepare for various types of risks. Considerations should be made for these security and insurance functions in terms of the level of direct involvement from the legislative system, that the functions may also be provided by private enterprises, and the balance between the legislative system and appropriate conducting of private sector activities.

Moreover, careful discussions should be made on livelihood security structures as well considering issues such as to whether or not such a structure should be adopted, and if so, to what extent and in what form should the government provide this security.

#### (3) Approaches against superior positions

Even when enough information is acquired, workers may have to accept unfair contracts or transaction conditions if the other party's negotiating power is strong. In terms of this, the conventional labor law has been focusing on this issue. For work styles in 2035, each individual is expected to have more opportunities to work autonomously, have less instances in which they are constrained through directions from the other party regarding their work styles, and come across more contracts in which differences in negotiating power between parties are small. However, disparities in negotiating power following superior positions based on strong negotiating power are still possible even for such autonomous contracts, and legal allowances for these types of situations are necessary. However, this issue can be taken care of through the Japanese Antimonopoly

Act if it is a transaction between general businesses, and may likewise be resolved. Thus, fundamental discussions are required on what types of legal structures should be used to resolve this type of problem, including the scope of applicable persons and structure content.

#### (4) Opportunities for skills development and educational training

Skills development and educational training that have been conducted by companies become an issue when the existence of companies changes significantly as explained the previous chapter. Companies should cooperate as an overall industry so that the skills they have treated as internal and proprietary can be standardized as a market-type skill. Another major issue for companies is to what extent they should conduct skills development and training. Treating education as each individual's responsibility is one option, following that individuals can utilize the internet, VR and latest technology to receive optimal education from around the world. However, this may destroy opportunities for some workers to receive proper training, even pose risks of sufficient skills development not being conducted as a society overall. Legal allowances and measures in some form will thus become necessary to create skills development and educational training in order to expand possibilities, not skills that are only valid within a company, more accessible.

These four points above should be considered in addition to the Civil Code (civil rules) and traditional labor law structures that assume normal economic transactions, and are also points for basic allowances necessary in terms of work styles. As discussed above, however, ideas that are not limited to laws in a narrow sense are necessary, as diverse types of legal allowances and measures can be potential options. For other points of discussion, each member of society will shine more for 2035 if contracts are left to the decisions and creativity of the parties involved as much as possible, or promote and support the decisions of the parties involved to achieve desirable policy objectives.

#### 4. 2 Specific system ideas

#### (1) Information disclosure for workers to make appropriate choices

When understanding the basic concepts of contracts it is first necessary to know, for example, what a contract means, for independent individuals to enjoy diverse work styles in 2035. In addition to this, the key point will be to have adequate information provided. In this sense, it will be extremely important for companies and parties providing workplaces to accurately present "expected work styles" so that workers can see this and choose. Companies would need to present how attractive they are as a workplace when seeking workers with better qualifications. Workplace conditions will improve through this form of competition.

As a method to achieve this, for example, a statement of "basic stance" on work styles in addition to labor conditions may be required by company or occupation. Or, accurate information disclosure on how management perceives the "career paths" of workers, and actual career paths of the majority of its workers may be prescribed as a requisite.

While such information disclosure may be made legally mandatory, they should essentially be carried out as voluntary efforts by companies. It is very important to clearly state career paths and work styles of the company to gain trust from employees and have them work with fulfillment. Voluntary and proactive disclosure of such information can also be considered as one of the strategies necessary for companies.

However, rules and formats should be prescribed to an extent on what kind of information should be disclosed and in what way, or its significance will be considerably lost when they cannot be comparatively studied. The setting of disclosure rules to certain levels will thus become institutionally necessary in this way. Penal provisions for false disclosure will also become necessary to achieve effectiveness of the system. Nonetheless, the degree of freedom for disclosure items should be secured following the level of importance varies by type of business and management policy.

However, the workers themselves possessing basic knowledge on the jobs and working is a major premise for such information disclosure to be effective. School education should thoroughly cover basic knowledge and develop information literacy skills.

Development of collective information platforms on websites so that workers can easily obtain information on work styles to compare is also imperative. It is also desirable that disclosed company information in general is aggregated in a single platform, so that all disclosed information can be grasped and comparatively reviewed from the website.

Further expansion in consultation functions for company-choosing in the form

of utilizing that information is also desirable. More sophisticated and meaningful matching of workers and workplaces will result by having public employment services and new private services offer this function. A one-stop system in which workers can obtain necessary information will thus serve as important infrastructure when expanding diverse work styles, and its enrichment will become a key factor for everyone to shine.

#### (2) System to respond to significant changes in the environment

Contractual relationships may naturally become difficult to maintain if changes in the environment occur. The freedom to change careers in 2035 is expected to have increased significantly following changes in the labor market, and if so, structures that flexibly respond to environmental changes under appropriate rules are anticipated, including systems that also include self-employed workers to promote the aforementioned information disclose and demand and supply matching of jobs, systems that enable smoother contract changes and renewals, and systems that cancel contracts that have become difficult to maintain based on the agreement made at the time of contract.

However, there may be situations in which not enough information is available at the time of contract, or unfavorable contract conditions are forced through strong negotiation power. This demonstrates that (1) A system for appropriate information flow and (2) Measures against superior positions, mentioned earlier, are necessary upon considering the changes in the labor market. It is necessary to think of contract systems that will correspond with environmental changes like the above upon also considering the safety nets discussed below.

#### (3) Broad safety net

The establishment of an appropriate safety net for unemployment will be in increased demand for a society in which individuals independently work. Working multiple jobs will be normal in 2035, and risks from unemployment may be reduced to an extent. But when considering that work styles do not assume employment and that significant environmental changes may occur, safety nets should be adequately developed so that unemployed workers can actively participate in society again in a more suitable form. By this means, the basics of safety nets are an enriched vocational education for career enhancement and change, which we will discussed later, and financial support should be mainly considered.

Livelihood security during career changes for better compatible jobs and during educational training sessions for career enhancement should also be interpreted as a safety net, in addition to one-sided revocation of contracts. In other words, systems that proactively support temporary leave and absences to achieve better work in the future are also perceived as safety nets.

Although the government may ultimately provide these safety nets, they do not necessarily have to be entirely offered by the government and local governments, and rather be provided as an appropriate form of insurance developed by private enterprises as much as possible. Administrations and the legislative system should mainly consider support in the form of assisting expansion of the private sector's insurance offerings. Another option is for local communities to mutually provide insurance.

Needless to say, appropriate development of safety nets to support people with difficulty in working due to illness is also essential.

#### (4) New social security system that complies with new work styles

Because the relationship between companies and individuals are expected to change greatly by 2035, suitable social security needs to be developed.

For example, when considering that both men and women are working more in general, tax systems and social security systems based on families with the assumption that the head of the household support his spouse should be replaced with individual-based systems in which working family members do not become disadvantaged. In addition, borderlines in labor time that determine social insurance eligibility have rational reasoning such as reducing office tasks, but they are likely to lose significance by 2035 due to IT technology development. Thus, resulting in a system in which both the workplace provider and worker pay for social insurance if working for at least one hour.

The social security system should therefore be developed in a neutral form as much as possible in terms of working location and time. Otherwise, freedom in work style for place and time cannot be fully utilized.

#### 5. Lifelong education in 2035 for everyone to shine

Amid significant technological innovation as explained in chapter 2, education in 2035 is also likely to change, such as remote education being normal. In addition, the way educational systems ought to be in accordance to changes in work styles should be reviewed amid significant changes in work styles and corporate organizations. Although not all issues can be discussed here, the way education should be to independently work, lifelong education to brush up skills, and the importance of education tailored to diverse human resources have been picked up for discussion below.

# 5.1 Education for independence: Choosing paths of preference and strength

Education needs prompt attention in order to realize a society by 2035, as described in Chapter 3, in which independent individuals can actively participate in. From the worker's perspective, education for independence refers to education to "choose paths of preference and strength." Matters of preference and strength diversify over time, and while existing occupations may be gone in the future, one may work for a completely new occupation in the future as well. The sky is the limit for children who have a future amid increasingly diversifying jobs and work styles. Various opportunities should be offered in the education field as much as possible so that choices will not be lost due to lack of knowledge, and curriculum organization by the teacher's discretion with flexibility to an extent should be permitted.

One may realize along the way that they actually don't like their chosen path or are not totally good at it. Higher education should offer programs with multiple streams, plastic and lifelong, so that people can turn back a little and choose a different path. Focus should be more concentrated towards having students understand that there are various options in the world in terms of "working" and "living," and to brush up practical and occupational expertise in order to approach the choices. It is crucial for teachers themselves to move on a different path along the way, return from there and demonstrate a more flexible career. Having students acquire common and basic capabilities that are required to change courses is also necessary.

#### 5. 2 Lifelong education for second attempts and challenges

The provision of practical, vocational and lifelong education and vocational training to change workplaces or search for new workplaces will be particularly important in the future. Vocational education has conventionally been provided by companies that hire. As explained in Chapters 2 and 3, however, expecting this role from companies will be very difficult considering that corporate organizations will transform into project-type organizations. Moreover, fewer workers will be expected to stay in the same company for life amid anticipation of longer healthy life expectancies, and demands for satisfactory vocational education to improve and change careers will increase from the worker side as well.

The Japanese government is implementing various subsidies to promote worker education and training. When considering the above points however, the government should shift its focus from systems that support company-led education to a system that supports education for workers themselves, and hopefully expand. As discussed in chapter 4, however, students may not be able to acquire enough educational outcomes through classroom lectures in colleges alone, because the skills necessary to work also tend to improve through actual practice. Education should therefore be perceived from a multidimensional perspective beyond conventional ideas, with measures such as the government providing monetary support for individuals who wish to acquire skills through corporate internship.

The level of flexibility in choosing a more satisfying work style will increase if people make efforts to enhance their accumulated know-how, skills and experience. The enrichment of educational opportunities is quite important for individuals to obtain better work styles.

On the other hand, more anticipation is seen in the fulfillment of occupational education as a better form of safety net. A trampoline-type safety net that assists people to obtain better work styles should be developed more, in addition to safety nets that rescue unemployed people and help them live humane lifestyles. Retraining systems should be further developed, and more financial assistance programs need to be established for individuals to receive occupational education and training for these purposes.

#### 5. 3 Education tailored to diverse human resources

A diverse range of human resources are anticipated to be working in Japan by 2035. Education should also be detailed according to the diverse situations of such resources. In particular, education for international resources and their family members is expected to increase over the years and needs to be considered. Efforts to implement Japanese language education, and promote understanding towards Japanese culture and society should be accelerated primarily during elementary and middle school to prepare an environment for them to play an active role in Japanese society.

However, the same goes for human resources who were born and raised in Japan. Understanding towards international languages and culture in addition to Japanese and Japanese culture will become ever more important, no matter what nationality, in an age where a global working environment will be the norm. In this context, efforts for multicultural coexistence should be conducted for children from elementary school to high school, such as enriching the English curriculum in higher education. These efforts should also be perceived as a type of vocational training, and necessary education should be made available as required for all ages.

#### 6. Proposals for 2035

Lastly, this chapter will propose policies with an eye on 2035, together with a summary of previous discussions.

#### (1) Technological innovation brings great opportunities

Technological innovation centered on AI will rapidly and drastically change the economic structure. This may potentially provide great benefits to all workers because physical constraints in working locations will be eliminated, and many jobs will be able to be conducted from any place at any time. Furthermore, effective utilization of IT technology and robots will enable people who were restricted from working due to disabilities and other issues to work with more freedom. These innovations will be an opportunity for everyone to acquire autonomous work styles with freedom and give more sense of accomplishment.

This technological innovation will also become a substantial opportunity for the Japanese economy. It may significantly help resolve issues that the nation faces, including its declining population and workforce following the decreasing birth rate and aging population.

These benefits do not only apply to urban areas. Robotization will be especially advantageous for rural areas in which depopulation and aging populations are prominent. And the IT industry won't be the only industry that will benefit and change. The agriculture, forestry and fishery sector is expected to see remarkable improvements in productivity and profitability through incorporating AI, and other industries that have previously been unrelated to IT technology are also anticipated to experience great innovation and advancement.

# (2) Establishment of new labor policies are essential to leverage opportunities

It is essential, however, to develop new labor policies in time or in anticipation of technological innovation so that all workers and the economy overall will benefit. This is because structures of work styles cannot help but significantly change through technological innovation. In turn, unless a new labor policy is established, people will find it extremely challenging to play an active role in

society, which consequently will cause the Japanese economy to lose opportunities, and instead be faced with great difficulties.

Furthermore, companies themselves are expected to go through significant transitions because they will have to quickly transform if the speed of change is accelerated. Extremely speaking, companies will become project clusters. The establishment of new labor policies that comply with such corporate transformations is imperative.

To achieve this, as discussed in detail in the report body, discussions need to be made on what will be lacking, and what kind of allowances are necessary if only the basic structures of the Civil Code (civil rules) are revised in terms of working activities.

#### (3) How communities should follow changes in work styles

Corporate transformation following the rapid changes in environment and individual work styles will also cause a great shift in how communities work. The role of communities that companies have played will certainly be substituted by something else. The roles of local communities may gain importance again if people focus more on lifestyles.

In addition, a shared awareness of working in the same occupation or field of expertise will become stronger compared to a sense of belonging from working at the same company, and result in creating mock communities on social media.

To respond to these changes, labor unions should also evolve into an organization that is suitable for a future that utilizes social media, AI, VR and various technological innovation by additionally focusing on collaborations by occupation and region, in addition to management by company and industry.

### (4) Society with mobile human resources and a Japanese safety net that allows second challenges

A combination of perspectives that positively interpret the increasing work styles that are free and autonomous with human resources moving between company and government organizing structures that enable second attempts and challenges are important when planning new labor policies.

Different workplaces and styles become necessary or sought after over time as the environment, one's skills and interests change. This will apply to more people towards 2035 when the speed of technological innovation is particularly fast, and this needs to be positively perceived as well.

Such transitions are not necessarily smooth, and require acquisition of knowledge and techniques necessary in many cases. A safety net that assists people to obtain better work styles should be developed more in accordance to situations in Japan, in addition to safety nets that rescue unemployed people, including self-employed workers, to live humane lifestyles.

Retraining systems to do over need more development, and more financial assistance should be made available for individuals to receive necessary occupational education and training. In addition to financial aid, enriched education content is also essential for all people to work according to their situations. Through the fulfillment of information disclosure systems discussed below, suitable systems that allow second challenges need to be established.

# (5) Information disclosure system for workers to choose appropriate workplaces

Correct choices can be made when there is precise information and understanding. Structures to provide necessary information in comparable form are needed in choosing work styles.

When understanding the basic concepts of contracts, it is first necessary to know, for example, what a contract means, for independent individuals to enjoy diverse work styles in 2035. In addition, it will be extremely important for companies and parties providing workplaces to accurately present "expected work styles" so that workers will be able to see this and choose.

As a method to achieve this, for example, a statement of "basic stance" on work styles in addition to labor conditions may be required by company or occupation. Or, accurate information disclosure on how management perceives the "career paths" of workers, and actual career paths of the majority of its workers may be prescribed as a requisite.

The development of collective information platforms on websites so that workers can easily obtain information on work styles to compare is also imperative. A one-stop system in which workers can obtain necessary information will thus serve as important infrastructure when expanding on diverse work styles, and enrichment will become a key factor for everyone to shine.

#### (6) Future work styles, and unified tax and social security reform

Because the relationship between companies and individuals is expected to change greatly by 2035, suitable social security needs to be developed.

For example, when considering that both men and women are working more in general, tax systems and social security systems based on families with the assumption that the head of the household support his spouse should be replaced with individual-based systems in which working family members would not become disadvantaged.

The necessity of a unified tax and social security reform has been discussed, and policies have been put in effect. However, work styles are inseparable factors for tax and social security issues. The level of people that can work with fulfillment depends significantly on tax revenue, and financial expenditures will become necessary for these policies to materialize.

Tax and social security systems should be developed in a neutral form as much as possible in terms of workplace and time. Otherwise, the freedom in work style for place and time cannot be fully utilized. Tax and social security should be discussed in a way that will not hinder changes and diversity of work styles.

#### (7) Act quickly and accurately

As discussed throughout this report, new labor policies need to be discussed and established for the significant changes centered on technological innovation to benefit all workers. But when considering that a considerable amount of time is required for a detailed review of changes in law and systems, it is important to perceive this issue as an ongoing urgent issue, instead of an issue for the future. Specific measures, structures and timetables should be prepared according to the report to promptly, yet accurately, discuss the ways of new labor policies.

Through such efforts Japan will hopefully establish a structure with the highest level of freedom in the world so that each person can work and achieve self-fulfillment according to their circumstances at any time and place, and proactively choose the country to physically live and work, like its stated goal to become "the world's most comfortable place to work."

#### 7. Conclusion: For a society in 2035 where everyone shines

"Technological innovation" widely discussed throughout this report is neutral towards strong people, weak people, large matters and small matters alike. The real thrill of "techniques" is that they may "beat the big," and no one can stop the efforts and diligent studies of those who are fervently studying and utilizing new technology.

Technological innovation, starting with AI, is a tool that destroy "barriers" such as time, space, age and sex to enable diverse work styles being perceived as not threats, but useful weapons instead. This will not only bring significant benefit to all workers, but also change the way companies, organizations and labor policies are today.

It is crucial to repeatedly learn challenges and failures from childhood, and teach the importance of "creating existence from nothing" for a future in which all members of society are shining. Having children master social and communication skills such as "thinking," "making friends," "cooperating" and "making others happy," rather than merely have them "memorize" things and events will be more useful in actual society.

Children will hopefully think about "what type of work I want to do" and "what type of company I want to start" instead of "what kind of company I want to join" as options in life, and respond to changes.

Japanese carry universal elements inherited for generations such as unique culture and traditions, as well as genes that can flexibly respond to environmental changes. The ideal society in year 2035 is one in which individuals can be their selves with their "individuality" by demonstrating strengths, other than digital, and feeling fulfillment in work and life in a future where drastic changes are anticipated due to technological advancement.

20 years seems long, but is actually very soon. We sincerely hope that the proposals in this report will kick off discussions towards future work styles.

# References

#### Future News: Will I be happily working 20 years from now?

The ideal work style for the future may differ from person to person, but here are five examples of their ideas of brilliance.

#### (1) [2016: Age 50; 2035: Age 69, Female]

"I was in charge of accounting at a company near my home until I was past 50. Accounting operations, however, have rapidly been replaced with AI. I changed my job about 15 years ago, and currently study psychology while working at a local hospital, and even acquired certification as a counselor. My hospital used to be troubled by a lack of physicians and nurses, but after incorporating innovative technology such as AI, 3D and VR to offer team medical care, the work-life balance of the hospital improved considerably overall. I'm an assistant for interviews using AI, and my job is to operate AI for it to see patients while I talk to let them relax. Patients are anxious when visiting the hospital. They feel supported just by being talked to, like, "Hey XX-san, you seem to be better," or, "I'm sure you'll be fine soon." Sickness and health starts with the mind. Thus, it is very important for hospitals to encourage patients as well as seeing them. And this is a job that only people can do."

#### (2) [2016: Age 4; 2035: Age 23, Male]

"I have liked programming since I was little, and created and uploaded games in my free time. A game that I created when I was in high school with a group of friends became a hit, and was played around the world. And that's how we became known, and programmers from many countries, like Singapore, India, Germany, and Estonia, asked us to work with them. I'm currently working on 5 projects. No matter where we live, we're all eager to create excellent service. We want to create a service again that will surprise the world. Until my father's generation, it was common sense that you needed to go to cities to have a good job. But it's different now. I can work while being connected to the rest of the world while living in this small seaside town. Hopefully, I'll be living in this town forever because I love the ocean. I surf in the morning every day, and concentrate on work in the afternoon. A lifestyle in which you go to the city to work all day and then go home alone to your small apartment is unimaginable for

me."

#### (3) [2016: Age 15; 2035: Age 34, Female]

"I have two daughters and a son. My mother was quite worried when I was having my third child. When she was raising me, it was generally a women's job to take care of the children, and it was very challenging to both work and raise them. I heard that there were many children on waiting lists for nursery schools back in the days, and it was quite difficult even get enrolled. But right now, anyone can leave their children in nursery school as they wish, and working at home is nothing unusual. For us, my husband and I both work at home half the week so that one of us will be at home every day. My children's favorite place is "The Anything School," run by seniors in the neighborhood. They go there after school and learn about how to catch insects from an elderly man, or learn how to cook from an elderly lady. It's encouraging to have people from the community look after my kids."

#### (4) [2016: Age 36; 2035: Age 55, Male]

"I worked for car manufacturer A. When automatic driving technology first came out, me and several of my colleagues were hyped to "create security patrol with automatic driving features," and devoted time while working at my primary occupation. We commercialized our product and launched a company, but I continued working at company A for half the week and worked on managing our new company for the rest, because monetizing seemed to take time. Our business started getting on track around three years later, and I concentrated my attention to our company management upon leaving company A. I pitched our product across the globe, and security companies in over 50 countries are now using our product. We are now considering selling our business, and company A, that I used to be at is one of our prospective purchasers. Company A proactively supports start-ups by its employees while it also continually acquires new business fields by buying businesses that became successful."

#### (5) [2016: Age 61; 2035: Age 80, Male]

"The retirement age for the company that I joined after graduating college was

65, but I actually worked until I reached 70 because there was a shortage of people. However, I actually started a small company when I was 66, so that was my side business, and I maintained a reasonable income. I had enough post-retirement funds with my retirement benefits, but decided to work even after reaching 71 years old because I didn't feel like retiring and start living guietly and comfortably. It's volunteer work received over the internet. The job that I used to specialize in has now been completely taken over by robots equipped with Al, but a cultural preservation organization requests me to do work because they want to preserve the old-fashioned way of working. I receive about the same amount as the electricity bills for AI robots, but I find it very meaningful to do the job that I have always done. I recently found this out, but there are apparently subtle differences in finish between work done by AI and humans, and the job is being reviewed to be returned to people again. This means that my technique may still be helpful. I plan to launch an NPO soon after calling out to my old friends who are still living. Even if there is no income, being helpful to society gives me a purpose in life. I swim in the local pool three days a week so I can continue working until I reach 100."

# "Future of Work 2035: For Everyone to Shine" Panel Meeting Guidelines

(Meeting Objectives)

Article 1 Individual values are increasingly diversifying amid significant changes predicted for industrial structures, employment structures and the socioeconomic system following the rapid advancement of globalization, decreasing birthrates and aging population, and technological innovations such as IoT and AI. Under such circumstances, a society in which women, men, seniors, young people, people who have failed once, people with disabilities and patients with serious illnesses can all demonstrate their capabilities to their fullest to enhance a sense of fulfillment and happiness. At the same time, sustainable and abundant economic growth through improved productivity and corporate values are also required.

Upon eyeing the year 2035, it is thus necessary to discuss new ideas to change society to an environment where various work styles are available according to each worker's situation.

"Future of Work 2035: For Everyone to Shine" panel ("the Panel") will meet to discuss the above matters.

(Organization)

Article 2 Panel members are the experts listed in the Appendix convened by the Minister of Health, Labour and Welfare.

- 2) The Panel meeting includes a Chairman whom the Minister of Health, Labour and Welfare designates from Panel members.
- 3) The Panel meeting includes advisors as listed in the Appendix, and members will report discussions as needed in order to request their opinions.

(Operation, etc.)

Article 3 Minutes shall be made public in principle.

2) Matters necessary for the operation of the Panel in addition to those prescribed in these Rules shall be stipulated separately by the Chairman.

(Secretariat)

Article 4 A Secretariat will be established for the Panel.

2) The Secretary General and Deputy General will be designated from the members by the Minister of Health, Labour and Welfare.

3) General affairs of the Panel will be managed by the Office of Counsellor for Labour Policy Planning with the Director General for Policy planning.

Supplementary Provisions

These Rules shall come into force as from January 28, 2016.

# "Future of Work 2035: For Everyone to Shine" Panel Member and advisory directory (In Japanese alphabetical order)

#### <Members> \*Current position names are as of April 1, 2016

| Name                                       | Current position   |
|--|--|
| Yasufumi Kanemaru<br>(Chairman)            | Future Corporation, Chairman and President, Group CEO            |
| Noriyuki Yanagawa                          | Professor, The University of Tokyo, Graduate School of           |
| (Director General)                         | Economics  |
| Tomoyuki Isoyama (Deputy Director General) | Economic journalist  |
| Yoshihisa Aono                             | Cybozu, Inc. CEO   |
| Kuniko Urano                               | Senior Executive Officer and Human Resources GM,<br>Komatsu Ltd. |
| Shinya Ouchi                               | Professor, Kobe University, Graduate School of Law               |
| Yohei Kobayashi                            | Vice Senior Researcher, Mitsubishi UFJ Research &                |
| - Torret Hoody derin                       | Consulting Co., Ltd.   |
| Lin Kobayashi                              | International School of Asia, Karuizawa, Chair of the Board      |
| Kazuhiko Toyama                            | Industrial Growth Platform, Inc. CEO                             |
| Madoka Nakano                              | Journalist, Diversity & Inclusion Designer at ChangeWAVE         |
| IVIAUUNA INANAIIU                          | Co., Ltd.  |
| Vutoka Mataua                              | Associate Professor, The University of Tokyo, School of          |
| Yutaka Matsuo                              | Engineering  |
| Tamako Mitarai                             | Kesennuma Knitting Co.,Ltd. Representative Director              |
| Masaki Yamauchi                            | Yamato Holdings Co., Ltd. CEO                                    |
| Dyujahi Vamakayya                          | Professor, The University of Tokyo, Graduate Schools for Law     |
| Ryuichi Yamakawa                           | and Politics   |

#### <Advisors>

| Name                | Current position   |
|---------------------|--|
| Rikio Kozu          | Japanese Trade Union Confederation President             |
| Sadayuki Sakakibara | Japan Business Federation Chairman                       |
| Vachia Higuahi      | Professor, Keio University, Faculty of Business and      |
| Yoshio Higuchi      | Commerce   |
| Atsuko Muraki       | Former Vice Minister of Health, Labour and Welfare       |
| Nachira Vachira     | Specially Appointed Professor, Showa Women's University, |
| Naohiro Yashiro     | Faculty of Global Business                               |

#### "Future of Work 2035: For Everyone to Shine" Panel Activities

1<sup>st</sup> meeting: January 28, 2016

- Changes in Japan's social structure and labor law system
- Matters of interest concerning the future of work styles (From members)

2<sup>nd</sup> meeting: February 24, 2016

- Impact on society from AI technological innovation and advancement (Presentation by Mr. Matsuo)

3<sup>rd</sup> meeting: March 10, 2016

- "Future forecast 2016-2030: Life innovation" (Presentation by external expert (Sakae Tanaka))
- Telework today and future working styles tailored to individual situations (Presentation by Mr. Aono)

4<sup>th</sup> meeting: March 17, 2016

- Efforts towards promoting dynamic engagement of all citizens (Presentation by the Ministry of Health, Labour and Welfare)
- Work styles from the industrial and employment structure perspective (Presentation by Mr. Youhei Kobayashi)

5<sup>th</sup> meeting: April 1, 2016

- Work styles that support high value-added services (Presentation by Mr. Yamauchi)
- Foundations of the labor law system and perspectives of the future (Presentation by Mr. Yamakawa)

6<sup>th</sup> meeting: April 13, 2016

- Labor relations law applied according to each worker (Presentation by the Ministry of Health, Labour and Welfare)
- Komatsu's initiatives: Organization and human resources (Presentation by Ms. Urano)
- What should be done towards 2035? (Presentation by Mr. Ouchi)

7<sup>th</sup> meeting: April 26, 2016

- Present state and future of employment in rural areas from the perspective of Kesennuma Knitting (Presentation by Ms. Mitarai)

8<sup>th</sup> meeting: May 10, 2016

- Balancing childcare, nursing and work: Present state and the future (Presentation by Ms. Nakano)

9<sup>th</sup> meeting: May 24, 2016

- Discussion on the table of contents plan for the report

10<sup>th</sup> meeting: June 8, 2016

- Discussion on the table of contents plan for the report

11<sup>th</sup> meeting: June 23, 2016

- Discussion on developing the table of contents for the report
- Reviewing of progress on report chapters

12<sup>th</sup> meeting: July 25, 2016

- Discussion on summary of the report