## **Section 1 Outline**

## I. Basic Concept of Japan Revitalization Strategy 2016

(Mission of the Growth Strategy Second Stage)

In the First Stage of the Growth Strategy, the Abe administration has cut into areas where the so-called "bed-rock" regulations remain, such as electricity, agriculture and healthcare, which have been considered taboo. It has carried out reforms that have been thought to be impossible, such as a drastic reduction of effective corporate tax rates, signing the TPP(Trans-Pacific Partnership) agreement, and enhancement of corporate governance. The so-called "sextuple whammies," which have been heavy drags on Japan's business development, has improved dramatically. In fact, since the regime change, the nominal GDP increased by about 30 trillion yen and the number of employees increased by over 1 million. Company earnings have reached the highest level on record. The administration will strive to turn this new positive growth cycle to a sustainable growth and achieve "the highest nominal GDP of 600 trillion yen" in the postwar period.

On the contrary, private entities are not fully in action. Population of Japan will begin to decrease in full scale before the rest of the world and face a big challenge on both the supply and demand sides. The long-term stagnation in the world has been pointed out, where new demands or potential growth abilities are not expected to arise in developed countries. Economic growth in developing countries including China has weakened, and the future of the economy is becoming increasingly uncertain.

In order to tackle these problems and realize a GDP of 600 trillion yen, it is essential for companies in Japan to have positive determination on shifting their internal reserves into future investment on facilities, innovation and human resources. Accordingly, it is necessary to carry out further reforms to challenge the following issues:

- 1) Strategic cultivation of new "promising markets";
- 2) "Revolution in productivity" to overcome supply regulations and workforce shortage associated with population decrease; and
- 3) "Enhancing capabilities of individuals" to facilitate transformation of the industrial structure

This is the new mission of the Growth Strategy Second Stage.

The possibility of significant development is turning real through the conversion of business models including technological innovations such as Big Data and artificial intelligence and making agriculture the Sixth Industry. We will develop potential demands by providing new values and tackling social problems, and strongly promote the "revolution in productivity" to overcome supply regulations in the society of decreasing population.

In the Second Stage of the Growth Strategy, we will develop these potentials into a big cross-industrial wave beyond the framework of existing organizations and industries. The "10 strategic public-private joint projects" will be launched, in which the public and private sectors will share knowledge and strategy, and cultivate new promising markets.

(The fourth industrial revolution and the cultivation of promising markets)

The "fourth industrial revolution" that uses the technological breakthrough of IoT (Internet of things), Big Data, artificial intelligence and robot sensor is the most important key to leading future revolution in productivity.

The fourth industrial revolution creates new businesses that resolve social issues and arouse consumers' potential needs. On the other hand, it can change the existing social system, industrial and employment structures completely. Do we convert the existing framework and create new businesses that resolve social issues before the rest of the world do, or do we continue to serve for overseas platforms? While the fourth industrial revolution is a chance to tackle the problem of population decrease, it can also result in the collapse of the middle-income group.

The fourth industrial revolution will bring a significant change in the entire economic and industrial social system from technology and business models to skills and ways of working required for workers. It is necessary to share a future image of the new social system as well as industrial and employment structures and conduct a reform in Japan as a whole based on the map created for the goal. It is important to focus on speed and carry out advanced ideas in a "first come, first serve" way.

The first step toward the strategy to survive the competitive fourth industrial

revolution is to analyze the strategy of the world's major competitors and Japan's "strong and weak points" in order to define fields in which we compete with other countries. In the first stage of the revolution, Japan got a late start in obtaining a platform of "virtual data" generated in the Internet space. However, in the second stage, our country showed a potential competitive advantage in "real data" such as health information, traveling data, and operation data of factory facilities. We will therefore aim to obtain a platform of "real data" in the second stage beyond the framework of existing entities and industrial groups.

(Introduction of a new mechanism for regulatory reforms)

We will introduce two new reform mechanisms in order to carry out further reforms for the realization of becoming "the most business-friendly county in the world."

First, we will introduce a "road map method for the back calculation of goals." During the fourth industrial revolution, it will be difficult to foresee technologies and speed always comes first. We will therefore share the future image - by when and what technologies we will implement in the society - between the public and private sectors, and introduce a method to design the process of the system reform in details adopting a back-casting approach.

Second, we will reduce regulatory and administrative costs, from the perspectives of business operators. The government has implemented regulation reforms, simplification of administration procedures and the use of IT for administration procedures separately. However, from the viewpoint of business owners, costs of regulation and administration procedures have influence on their competitiveness. For them, this is the element of deciding whether they invest in domestic markets or overseas markets. Therefore, we will introduce a new mechanism to reduce all regulatory and administrative costs from the viewpoint of business owners by integrating regulation reforms, and simplification of administration procedures.

(Strengthening of innovation and human resources) The keys to realizing the fourth industrial revolution is open innovation and human resources. Under the difficulties of foreseeing future new technologies, it is clear that there is a limit for a company to make products only by its own technology. It makes the difference whether Japan can become a country that attracts top-level human resources, technologies and capital from the world beyond the industry-academic-government framework.

As the fourth industrial revolution progresses, changes in industrial and employment structures will be inevitable. The relationship between company and individuals will also change. If we don't change ways of human resources development, labor market and way of working, employment opportunities and incomes will decrease, and the middle-income group will collapse, polarizing income groups.

Waves of the fourth industrial revolution provide young people an opportunity to "change the society and play an active role in in the world." We will make programming education compulsory and introduce individualized learning depending on each person's level of understanding using IT, so that young people in Japan survive and lead the era of the fourth industrial revolution.

We will also realize university and National R&D Institute reforms and considerably expand joint research activities between industry and academia.

In order to attract world's top level human resources, Japan will become one of the first countries to introduce "Japanese Green Card for Highly Skilled Foreign Professionals" which is the fastest such system in the world.

(Japan Revitalization Strategy 2016)

The time is about to change greatly. Japan is now at a historical crossroads in terms of whether we should aim for a new growth path without fear of change, or whether we should continue on a path of serving for the world's leading companies. The government will make efforts to make Japan the most attractive country in the world by overcoming such an era of transformation and putting it on a growth track.

In this regard, Japan Revitalization Strategy 2016 acts as a guiding compass in deciding what actions Japan should take.

#### II. Key Policy Measures in the Japan Revitalization Strategy 2016

# 1. "10 strategic public-private joint projects" toward GDP of 600 trillion yen

#### **1-1: Cultivation of new promising growing markets**

#### (1) The fourth industrial revolution (IoT, Big Data, artificial intelligence)

In the future, IoT will enable us to connect everything via the Internet, through which the so-called "Big Data" is collected and accumulated. Big Data is analyzed by artificial intelligence and more and more products and services that have previously been unimaginable will appear in the world using the analysis results, robots, information terminals, etc. Cyber and physical space will be integrated in an advanced manner, new business models will emerge without a boundary between the provider and consumer of goods and services, many social issues will be resolved, and the quality of life will improve dramatically. These waves of the fourth industrial revolution are emerging faster than we can imagine.

There are global debates about whether artificial intelligence is greater than human intelligence. An idea of using data could change the person who possesses competitiveness overnight. The key point is how Japan combines its strong areas (e.g. manufacturing sites) with technology (artificial intelligence, etc.) that plays an important role in the fourth industrial revolution. Although Japan has a chance to win in the competition, it's now or never.

During the fourth industrial revolution, it is difficult to foresee the direction of innovation in technologies and business models and the priority is put on speed in an absolute manner. "Waiting" passively can be a fatal mistake for both government and private sectors. We should consider business strategies that utilize of technologies and the strong point Japan by collecting industry-academic-government knowledge and backcasting the image of future shared by public and private sectors. Under these circumstances, it is necessary to promote detailed projects such as the development of business models by private sectors, regulation and system reform by the government, and the promotion of technological development and the promotion of data platform development through cooperation between the government and private sectors. Needless to say,

when promoting these policies, it will become more important to secure cyber security that can respond to the explosive increase in data amount and drastic increase in the added value of data.

As it is difficult to foresee the future during the period, the speed of business metabolism needs to be faster. The importance of prompt replacement in open innovation and business areas will become more and more important. Financial and capital markets will require supply for growth capital depending on the business more than ever.

We need to develop human resources as quickly as possible. What will be the skills and duties required for workers when the fourth industrial revolution progresses? It is necessary to consider human resources development by backcasting from the future image.

Small and medium-sized companies are the key to spreading the fourth industrial revolution throughout Japan. It is important to introduce IT and robots in business operations based on the needs and viewpoint from the side of small and medium-sized companies. We will significantly reduce the cost of introducing small-sized general-purpose robots and carefully provide as much support as possible for the introduction of IT and robots based on the actual condition of individual business, operation flow, etc.

Can we deal with the various changes that are rapidly occurring? While a moment of delay could cause a fatal error, issues are diverse and cross-sectional responses are required. Therefore, as a new command center of the government as a whole to promote the fourth industrial revolution, we will establish, under the Headquarters for Japan's Economic Revitalization, the "Public-Private Council for the fourth Industrial Revolution" that takes the overall control of government efforts.

In promoting the fourth industrial revolution, we will coordinate with the consideration of the basic policy of the Society  $5.0^1$  strategy formulated by the Council for Science, Technology and Innovation.

<sup>&</sup>lt;sup>1</sup> Society5.0 is a strategy to realize a "super smart society," the fifth society on record ahead of the rest of the world. In this society, new values and services will be created one after another through activities including the active use of cyber space and abundant life will be brought to people who lead the society (it means that science and technology innovation will lead changes that create a new society that follows a hunting society, agricultural society, industrial society and information society).

<Key policy measures>

- 1) Establishment of the "Public-Private Council for the fourth Industrial Revolution" a comprehensive command center.
- 2) Specifying research and development and the strategy of industrialization in the "The Artificial Intelligence Technology Strategy Council".
- 3) Regulation and system reform ("road map method for the back calculation of goals," "promotion of regulation reform, simplification of administration procedure and utilization of IT in an integrated manner"), promotion of projects, etc. for data use beyond the framework of companies and organizations and ensuring security.
- 4) Promotion of business metabolism and streamlining of business restructuring toward the fourth industrial revolution.
- 5) Substantiation of human resources development and education-related measures in the "Council for Promoting Human Resource Development to respond to the Fourth Industrial Revolution".
- 6) Dissemination of the fourth industrial revolution in medium-sized and small and medium-sized companies.

(2) Toward a world leading healthcare country

The fourth industrial revolution will change the form of healthcare and nursing care.

The growth potential in health and preventive services is extremely high. As wearable terminals are becoming more popular and preferences of individuals toward health and preventive services are increasing and diversifying, it is considered that demands for these services will increase drastically in the future. Health and preventive services are expected to be effective for the moderation in healthcare and nursing care costs. The size of potential demands corresponds to the size of business opportunities. We will provide high-quality services for various needs in a flexible and efficient manner. Establishing a business model of service provision to create a growth industry is a big challenge.

In addition to health insurance claims and health checkup data, collection of data using IoT such as wearable devices will allow better design of services based on individual situations more quickly. In the existing measures of the

growth strategy, "data health" and "Health and Productivity Management" have become established among insurers and companies. Under these circumstances, we will look into what kind of "individualized health services" we can support to provide using technological innovation. We need to design the system to provide an incentive for the efforts of prevention and health promotion using ICT, etc.

Besides the use of ICT, we should accelerate the use of new technologies such as Big Data and artificial intelligence, robots, etc. in the existing areas (so-called medical and nursing care sectors) in order to adapt to the fourth industrial revolution. During the revolution, drug development, development of medical device and individualized services based on vast amounts of clinical data and the state of individual patient will be realized, and higher-quality services will be provided to each person. Burdens on medical and nursing care fields will be reduced dramatically from the use of nursing-care robots to medical imaging and the streamlining of clerical work. Workers in the medical and nursing care fields will be able to focus more on the provision of careful services, team medicine and team nursing care based on patients and people in need of nursing care, which Japan has boasted.

In the medical field, we will develop a platform to utilize world's pre-eminent medical ICT using the universal healthcare system that Japan has been proud of. Using vast amounts of medical treatment and examination data in a safe and effective manner will contribute to the research and development of cutting-edge drugs, treatment and medical device. In addition, using artificial intelligence for these vast amounts of data could lead to the development of a system to support treatment in the medical field.

As the shortage of human resources is an urgent issue in nursing care, it is necessary to take more measures than ever for the progress of technologies that support nursing care facilities such as robots, sensor, ICT, etc. ICT, etc. can reduce burdens of field workers. Furthermore, we will realize high-quality nursing care services to support the independence of the elderly by making the most use of technologies such as robots, sensor, etc. to reduce burdens of field workers and generate their motivation for new efforts. It is necessary to consider this initiative as soon as possible in order to generate a virtuous cycle in which these efforts motivate workers toward innovation in the nursing care field.

Having the world's highest longevity, the secret to good health in Japan is

attracting a lot of attention from the rest of the world. It is expected that leading the world in establishing new services that can respond to the fourth industrial revolution will promote the development of overseas markets and contribute to the partner country.

#### <Key policy measures>

- 1) Providing diagnosis support and innovative new drugs and medical device by using Big Data, etc. (development of new platform in which medical treatment and examination data is widely collected, managed and de-identified in a safe manner)
- 2) Providing personalized healthcare services using IoT, etc. (putting together, analyzing and utilizing health insurance claims, medical checkup and health data), promoting the use of uninsured services for health and prevention.
- 3) Improving the quality and productivity of nursing care by utilizing technologies such as robot, sensor, etc. (examining feasibility of providing appropriate framework, including review of nursing-care benefits, manpower allocation and facilities criteria)

#### (3) Overcome environment-energy constraints and expand investments

We will overcome environmental energy constraints, which is a global issue, using Japan's cutting age technologies and expand investment in economic growth.

Investment in energy efficiency has as much economic effects as the investment amount itself. In addition to energy conservation, reviewing production process, etc. at the same time will strengthen competitiveness through the reduction of costs that exceed those of simple energy efficiency and the improvement in the quality of products and services. As the focus of business is shifting to the provision of services using data, expanding the promotion of investment in energy efficiency from manufacturing industry only to distribution and service industries and small and medium-sized companies will promote the economic growth of Japan as a whole.

As for renewable energy, we will try to control burdens on citizens and strive for the introduction as much as possible. Towards the goal of developing a large-scale hydrogen supply chain by around 2030, we will promote the popularization of fuel cell vehicles for the realization of a hydrogen-based society.

Electricity retail market was fully liberalized in April this year and various businesses have begun to enter the market. Moreover, a new business model is emerging, in which a comprehensive energy management is implemented by connecting consumers' battery and solar power-operated facilities via a network to control them in an integrated manner and combining this with a new demand management method of "demand response." This is the fourth industrial revolution in energy field. We need to take measures to obtain world's markets using our technological strength.

Development and securing stable supply of resources is the basis to support a nation's economic activities. It is necessary to take measures based on medium to long-term point of view. Currently, investment in resource development has stagnated due to the low resource price and a considerable gap between supply and demand and the rise in resource prices are expected in the future. It is necessary to put stable investment in resource development even under the low resource prices in order to secure stable economic growth.

#### <Key policy measures>

- **1) Promotion of investment of distribution and service industries and small and medium-sized companies in energy efficiency**
- 2) Promotion of introduction of renewable energy and development of new energy systems (full popularization of fuel cell vehicles, realization of a hydrogen-based society, and establishment of a "trading market for electricity saved (negawatt)")
- **3)** Strengthening of resource security

#### (4) Changing sports to a growth industry

Sports have an intoxicating and affecting attractiveness. They are developing remarkably as an industry in some parts of the world. Approaching 2020 Tokyo Olympics and Paralympics Games, are sports in Japan generating suitable economic values as would be expected?

Being attractive means, sports have the power to pull in more customers in

business. How can we use the power of sports attracting people, rather than being the object just for watching? From the viewpoint of marketing, sports can be transformed to a growth industry in Japan.

Gathering people in the community is the key words for community revitalization. Revitalizing a community based on sports is one powerful idea. Where should a stadium/arena be located and where should people inside and outside the community be gathered in the area? When there is a game, rather than ending up with just a one-time sport watching, based on sports, what kind of integrated entertainment and memorable events can be offered in the "space" – including the surrounding area? It is necessary to have a viewpoint of community development and shift from "consumption of goods" to "consumption of experiences."

In order to realize this, we will take measures to convert the attractiveness of Japan's sports to economic values, such as the provision of support for offering new watching style and sports experience by publishing media, using the latest digital technologies, etc., and the development of new markets by integration of sports with other businesses such as healthcare, food, medical care, tourism, fashion, culture and arts. Development of human resources that support the creation of these new markets is also an important issue.

Athletes come first even when considering sports as an industry. Using the economic values created by athletes and players for the improvement of game environment and the introduction of latest training methods will increase game levels and the competitiveness of Japan's sports as a global brand. At the same time, these will lead to the personal fulfillment of each athlete during their life as a player and after retirement. This will eventually lead to the creation of another new economic value and the future development of sports in Japan. Establishment of a virtuous cycle of sports in this way is the goal to be achieved.

#### <Key policy measures>

- 1) Improvement the attractiveness and profitability of sports facilities
- 2) Development and use of sports management human resources and creation of a platform

**3**) Integration of sports with IT, healthcare, tourism, fashion, culture and arts, etc. and its expansion

#### (5) Revitalizing markets for transaction of existing houses and reform

Revitalization of the housing market could contribute greatly to economic growth from the viewpoints of both demand stimulation and expansion of housing-related investment.

A house can often be the most expensive purchase in one's life. Nevertheless, people think that "purchase is the goal about a house" and the asset value of the house they purchased may decrease over time if no care was taken. In fact, it is said that if a house is made of wood, the asset value will be zero in about 20 to 25 years after construction. Is this evaluation actually true?

Some people may think that they would like to live in the same house for a long time and pass it on to their children and grandchildren, while others may want to receive a loan for living expenses using the house as security. Some may want to move from a house according to the stage of life. Different people have a different set of values. In addition to the revitalization of new housing markets, it is necessary to develop a market of existing houses whose value can be increased and which can be evaluated as an asset by living with care and providing appropriate reforms.

The Fourth Industrial Revolution is happening in the housing industry. We should provide new lifestyle and health, security service, etc. using new technologies including IoT in the next generation houses. It is considered that the development of the housing market including the provision of these new added values will further increase the asset value of houses.

Increasing the asset value of houses has great ripple effects that can change the consumption behavior in Japan: raised consumption as a result of resolving people's concerns about their old age. We need to take aforementioned measures bearing these in mind.

<Key policy measure> Establishment of an existing housing transaction market in which houses are evaluated as assets.

#### **1-2: Enhancement of Local Abenomics**

#### (6) Productivity improvement of service industry

Roughly 70 percent of Japan's GDP is made up by the service industry. Most local employment is provided by the same sector as well. Therefore, improvement of the service industry's productivity is indispensable for people to really feel economic growth and vitality of the community.

A huge productivity gap exists among companies in the service industry, and quite different services are provided by different types of business. The service industry is also characterized by the fact that an overwhelming majority of the businesses are community-based, making it difficult for measures to spread among them. Given such reality of the service industry, political approaches which are not standardized but made from a variety of perspectives are required, which need to be carefully implemented to promote productivity improvement of the service industry. In fact, the Headquarters for Japan's Economic Revitalization already adopted the "Service Industry Challenge Program" in April last year and has launched cross-industrial, industry-based, and community-based initiatives for productivity improvement. By strengthening such efforts, the Government will form the "momentum for the service industry's productivity improvement at a national level."

The Government will also work to create growing companies which lead productivity improvement of the service industry, the principal driver of today's economy. As the fourth industrial revolution unfolds, added value in manufacturing and simple services will be less important, making it crucial to shift into provision of data-driven services. While having willing business owners understand such trend of the times, the Government will strive to help create 10,000 companies whose productivities grow around 10% across the country by 2020 by assisting promotion of advanced utilization of data and IT. For instance, the hotel business is a typical service industry trade. There, at an individual hotel level, various new ideas are spurring the creation of new services, one, for example, involving the utilization of data and tablet computers through which a wide variety of requests from individual guests are shared by the entire hotel staff, and appropriately dealt with. Such innovation not only helps increase repeat guests but also spreads the hotel's reputation through the internet thereby contributing to development of new customers. In addition to such efforts, what is also important is improvement of local attraction. It is necessary to spread among local businesses the idea that a sustainable growth model can only be achieved by the combination of customer attraction abilities enhanced through local attraction, and individual businesses' efforts for productivity improvement.

It is also important to take into account the characteristics of each industry and closely work with trade associations by industry when promoting productivity improvement. In fact, service industry's efforts to adopt "Kaizen on-site process improvement activities" and other superior knowhow of manufacturing industry which excels at productivity are already underway. The Government will make effort to promote the spread of advanced business models and methods to standardize operation flows obtained by such activities by including them in sector-by-sector guidelines (policies to work on in each industry towards productivity improvement) to be developed in accordance with the SMEs Business Enhancement Act .etc.(passed on May 24, 2016), working together with relevant organizations including trade associations by industry, and utilizing the measures for SMEs.

Local on-site efforts for the service industry's productivity improvement are also in full swing. In some advanced regions, a council has been established where local governments, small business associations, local financial institutions, and other interested parties get together to share model cases for the service industry's productivity improvement and discuss the division of roles in individual cases and assignment of support staff specialized in IT and other areas on a continual basis. The Government will help combine such activities with local branding approaches concerning revitalization of towns, people, and jobs, thereby encouraging communities to make efforts in a way to improve local attraction and individual businesses' productivities together.

## <Key policy measures>

- 1) Creation of businesses leading the service industry's productivity improvement
- 2) Productivity improvement by each business field
- 3) Community-based productivity improvement through utilization of SME support providers, etc.

#### (7) Renovation of mid-ranking companies, SMEs and microenterprises

Major players of local economy are mid-ranking companies, SMEs and microenterprises. But such local businesses are also subject to a wave of change. As population declines and business owners themselves get older, regional economy and society are coming under threat of discontinuation. While dealing with such change, how should businesses maximize and take advantage of their potential? It is important that this challenge of businesses needs to be supported in their communities.

TPP (Trans-Pacific Partnership) will bring a huge opportunity for local companies to do business outside Japan. By providing thorough support for the endeavor of core enterprises leading local economy and willing SMEs, the Government can expect their rapid growth.

Amid a labor shortage, SMEs and microenterprises are facing a significant challenge, that is, productivity improvement including promotion of IT utilization. By cooperating with SME support providers in communities, the Government will carefully provide cases of IT utilizations to business owners in hope to make them more interested in IT utilization while promoting IT investment and labor-saving investment according to individual business conditions.

In addition, the Government needs to make sure that a positive economic growth cycle will expand to SMEs and microenterprises across the country by pushing for improvement of the terms and conditions for subcontractors, promoting local financial institutions' financing by business assessment, and facilitating business revitalization/ succession.

## <Key policy measures>

- 1) Support for the growth of local core companies with an eye to the global market
- 2) Support for local SMEs' expansion to overseas by taking advantage of TPP.
- 3) Support for improvement of productivity of mid-ranking companies, SMEs and microenterprises including IT utilization
- 4) Promotion of provision of growth funds which do not need collateral or a surety by using a "local benchmark," etc., enhancement of

financing functions, and acceleration of business revitalization/ succession

# (8) Promote proactive agriculture, forestry and fishery, as well as reinforce export

"Increase the income of earnest farmers in local communities." This is the key phrase for agricultural reforms in the second stage of Abenomics. The Government will expand the production scale, through promoting concentration and consolidation of farmland, and increase sales while making sure that production costs and intermediary margins are reduced to the minimum, making the foundation for farmers' foray into new markets, both domestic and international. The Government will accelerate initiatives like these to establish agriculture as a robust "industry."

Creating an enormous market of 800 million people, TPP is a great opportunity for the agriculture, forestry and fisheries. The Government will strengthen promotion of Japanese food, which is tasty, safe, and appreciated worldwide, as well as strive to develop and expand sales channels by taking advantage of growing overseas demand.

It is important to realize sustainable agricultural structures with a good balance between generations. In this sense, the Government needs to find the best way to make agriculture more attractive "occupation" for the young and females. Intuition and experience are assets. But those kept inside a single farmer are useless possessions, which will sooner or later be lost. That is why we need to passed those assets down to the next generation including the young and females. For this purpose, it is important to visualize know-how as well as push forward with introduction of IT and automation to agriculture as far as possible so that the young and females who are using smartphones and tablet computers on a daily basis could acquire skills efficiently.

During the Public-Private Dialogue towards Investment for the Future, held on March 4, this year, both of the agricultural and business communities announced the resolve to cooperate with each other and provide support to earnest farmers at the local level all the way up to the national level, and the Government confirmed the establishment of a system for cooperation. Development of talent including management abilities, cost reduction to a bare minimum, exportation, introduction of IT and automation, and many other challenges lie ahead, which cannot be immediately overcome by farmers alone. The Government will solidify partnership with the agricultural and business communities, as well as make concrete efforts to solve them.

## <Key policy measures>

- 1) Enhancement of functions of the Public Corporations for Farmland Consolidation to Core Farmers through Renting and Subleasing (Farmland Banks)
- 2) Cost reduction of production materials and realization of distribution/ processing structures favorable to producers
- 3) Development of human resources
- 4) Reinforcement of export
- 5) Promotion of "smart agriculture" (realizing unmanned automatic operation by remote monitoring by 2020)
- 6) Building a system for cooperation between the agricultural and business communities

#### (9) Tourism oriented country

The annual number of foreign visitors to Japan last year reached 19.74 million with their consumption reaching 3.4771 trillion yen. These numbers have more than doubled and tripled respectively in the past three years. Tourism is the ace in the hole for "revitalizing regional economy," and a pillar of the Growth Strategy aiming to achieve GDP of 600 trillion yen. To achieve new goals of 40 million foreign visitors to Japan with their consumption reaching 8 trillion yen in 2020, the Government will accelerate the trend and set tourism as one of the key industries of Japan.

While boldly opening appealing governmental facilities such as the State Guest House which has been opened to the public for visiting only on limited occasions, the Government will utilize cultural assets and national parks as tourism resources and push forward with developing of appealing tourism areas. Increase in the use of facilities will lead to higher economic returns, which will be used for the facilities as self-generated funding. Meaningful tourism appeal can only be realized when each tourism area and facility makes efforts as an independent tourism management. In that regard, what is important is development of a consensus building process. Developing appealing tourism areas requires answering questions such as what tourists want in their destinations and what they want to see and experience, sometimes by using external human resources. To this end, the Government will promote establishing and developing Japanese version of DMOs\* across the country, which are organizations specialized in strategically promoting integral marketing and branding of tourism areas.

\*DMO: Abbreviation of Destination Management/Marketing Organization.

It is a locally-owned promotion organization to develop tourism area, through various activities such as creation of integrated brand of the area by combining various resources of the area, information dissemination and promotion using website and SNS and others, effective marketing, strategy formulation, etc.

To set tourism as one of the key industries of Japan, the Government will revise old tourism-related regulations and systems while making efforts in developing human resources to support the tourism industry. For instance, the Government will start full-scale human resources development, which will target a wide range of people including managerial talent for top positions, those who will lead development of local tourism areas thereby playing a central role of local tourism, and more practical human resources for places ready for business.

To prevent all these new goals from becoming empty wishes, the Government also needs to accelerate improvement of the tourism environment to accept foreign visitors, including accommodation facilities, Customs, Immigration, and Quarantine (CIQ), transportation, communications, etc. While pushing for environmental improvement on a national basis, the Government needs to provide measures on a local basis as well to deal with expected local tourism demand by figuring out what are issues to be solved and by when they need to be dealt with.

Stimulating domestic tourism demand is also a significant challenge. Seasonal concentration of tourism demand in the year-end and New Year holidays, the Golden Week, and the Bon holidays works against all players including businesses, workers, and tourists. Peak times see a massive influx of visitors, but in other times, operation rates drop sharply. Given that, it is understandable, in a sense, that businesses are not willing to make promotional activities. From workers' perspectives, tourism does not provide

an attractive work place because they tend to be hired on a part-time basis and only at peak times. For tourists, no matter where they go, there are crowds of people and everything is expensive, naturally making them less satisfied and less willing to go on a next trip. Smoothing out tourism demand fluctuations is a huge challenge toward the realization of Japan as a tourism-oriented country.

## <Key policy measures>

- 1) Enhancement of the attractiveness of tourism resources (opening the State Guest House to the public, utilizing of cultural assets and national parks)
- 2) Revision of tourism-related regulations and systems (expanding guide-interpreter services, etc.)
- 3) Promotion of establishing and developing Destination Management/Marketing Organizations (DMOs)
- 4) Development of tourism human resources
- 5) Improvement of regional tourism environment to accept an increasing number of foreign visitors to Japan
- 6) Promotion of taking leaves/ staggered holidays

## **1-3: Stimulation of domestic consumer confidence**

# (10) Measures to stimulate domestic consumer sentiment under the cooperation between the public and private sectors

To make achievement of 600 trillion yen GDP feasible, the Government will deliberate measures to stimulate domestic consumer sentiment in addition to promotion of private investment.

It is pointless to try to bring forward consumption from the future to today. Instead, it is crucial for the public and private sectors as well as the central and local governments to closely work together and provide "stimulation of domestic consumer sentiment" which will raise the consumption level to balance the supply-demand gap in the country, make change to conventional consumption/ purchasing behavior, thereby leading to creation of more consumption.

## <Key policy measures>

## Measures to stimulate domestic consumer sentiment

## 2. Regulatory and system reforms to realize revolution in productivity

## (1) Introduction of a new mechanism for regulatory reforms

The Abe administration has carried out "the greatest reform to the so-called bed-rock regulations in the postwar period" in areas such as energy, agriculture, and healthcare. It has achieved significant results in attracting private investment, and is placed in the "10 strategic public-private joint projects' towards GDP of 600 trillion yen" in the 2016 Japan Revitalization Strategy.

There is no end to reforms by the Abe administration.

In light of imminent changes of the time caused by the fourth industrial revolution, it is necessary to introduce a new mechanism for regulatory reforms. In the era of the fourth industrial revolution, predicting technological innovation becomes harder and speed is highly valued. If you are a touch late, you will be out of the game. It is such an unpredictable time that the Government needs to pursue an approach where the public and private sectors will share a vision and develop a road map by working backward from the future image, based on which companies will develop technology and business models while the Government will implement regulatory reforms. This approach also requires such flexibility that the public and private sectors share a gap with expectations, if any, and immediately modify their respective actions.

In addition to reforms to bed-rock regulations in individual fields, the Government aims to realize "the world's most business-friendly country" and will introduce new methods for reforms which enable it to promote deregulation, simplification of administrative procedures, and introduction of IT in an integral manner in order to give a boost to companies' productivity improvement efforts towards realization of "economy of 600 trillion yen GDP."

## <Key policy measures>

1) Introduction of a method to implement concrete reform measures

developed by backcasting from medium-term goals set up based on the prospects of the industrial revolution ("Road map method for the back calculation of goals")

2) Introduction of a new method for regulatory reforms to promote deregulation from the perspective of business operators, simplification of administrative procedures, and utilization of IT in an integral manner.

# (2) Utilization of National Strategic Special Zones (Breakthrough on structural reforms)

With regard to National Strategic Special Zones, the Government will develop the world's most business-friendly environment, where the private sectors could leverage their capabilities, for economic growth by designating the two year period until the end of FY2017 as a "concentrated reform enhancement period," and setting up "new goals" of implementing the following measures.

The Government will make a breakthrough on remaining "bed-rock regulations," designate six fields to focus on, and further accelerate its efforts for addition of necessary designated zones and "visualization" of specific projects, in addition to increasing and exploring regulatory reform matters.

The Government will deal with each specific need in a comprehensive manner at any time, and further enhance "gateway" functions to provide support for realization of any business.

## (3) Regulatory reform towards future investment

## a) Further enhancement of corporate governance

Corporate governance reform is the top priority issue for the Growth Strategy, and its important position has not changed. Now that a growing market has surfaced, making a 600 trillion yen economy achievable, and that the fourth industrial revolution has brought the age of rapid change, "growth-oriented management" has become indispensable. It is also required to improve the effectiveness of "constructive dialogue between businesses and investors." All the interested parties need to recognize that there is no magic wand to solve all the problems, and keep various efforts going.

To develop corporate governance reforms from mere "formalities" to

"substance," it is useful to increase the effectiveness of institutional investors' influence on listed companies. For this purpose, the Government will promote investors to have dialogue which gives "awareness" to companies. Coupled with this, the Government will support efforts by listed companies for improvement of the effectiveness of corporate governance through learning and publicizing the state of listed companies' efforts concerning the CEO selection and dismissal process and composition, operation, and evaluation of the board of directors.

In addition, as a foundation to support such efforts, the Government will firmly carry on its initiatives for improvement of the effectiveness and efficiency of companies' disclosures and electronification of the processes for shareholders' meetings. With regard to companies' disclosure, the Government will aim for improvement of environment for realization of the world's most effective and efficient disclosure, and reasonable scheduling of shareholders' meetings and the Record Date, roughly by the first half of 2019, based on the past discussion, from the perspective of promoting dialogue between companies and investors included in the "Stewardship Code."

Investment now in need is that to support efforts of companies, which made the highest corporate earnings in history, to open Japan's economic frontiers.

## <Key policy measures>

- 1) Improvement of the effectiveness and efficiency of corporate disclosure which provides a basis for constructive dialogue between companies and investors
- 2) Electronification of the processes for shareholders' meetings

# b) Smooth supply of growth funds through realization of vibrant financial/ capital markets

To realize better flow of funds and promote portfolio rebalance to facilitate people's stable asset formation, the Government will promote NISA and Junior NISA programs, improve their systems, and enhance financial and investment education as a measure related to household assets while enforcing observance of fiduciary duties to ensure that financial institutions give priority to benefits of customers (households), and conduct business for benefits of customers and beneficiaries through appropriate management of conflict of interest and advanced asset management. In addition, financial institutions are expected to ensure sound operation and provide high-quality financial intermediation functions, that is providing sufficient financial intermediation functions when the economy or the market is strained, and contributing to industry/ business solutions through financing based on business assessment and supporting core business.

With regard to FinTech, based on the perspective of user protection and fraud prevention, the Government will aim to advance financial services by incorporating IT development in the finance sector, and discuss institutional issues in order to improve user convenience and strengthen Japan's economic growth potential while creating environment (FinTech ecosystems) to ensure development of FinTech.

As well, to deploy big data for providing attractive tours, further stimulating inbound demand, and discussing political use of "Regional Economy Society Analyzing System (RESAS)," the Government will push for improvement of environment to make use of big data obtained through cashless settlement.

## <Key policy measures>

- 1) Promotion of portfolio rebalance contributing to provision of growth funds and improvement of market environment (promoting NISA, enforcing fiduciary duties, developing tools for long-term stable investment, securing fairness, transparency, and stability of markets, etc.)
- 2) Provision of high-quality financial intermediation functions (strengthening efforts for financing by business assessment and supporting core business)
- 3) Promotion of FinTech (creating FinTech ecosystems, etc.)
- 4) Utilization of big data (standardizing data obtained through credit card transactions)

# c) Expansion of private participation in public services/ assets through PPP/PFI

As part of structural reforms, opening up of public services/ assets to the private sectors will lead to efficient provision of high-quality services leveraging originality and ingenuity of businesses, and could trigger more

private investment.

It realizes creation of new business opportunities, upgraded service to citizens based on the private sector's wisdom, and reduction of public spending due to better efficiency, in other words, "kills three birds with one stone."

With regard to facilities expected to see growth in demand due to the increase of tourists from inside and outside Japan, including airports, educational facilities (sports facilities, social educational facilities, and cultural facilities), passenger terminal facilities for cruise ships, and MICE facilities, it is expected that improved service will further increase visitors and that funds realized through better efficiency will produce a synergy by being invested in other growth areas.

As for facilities expected to see decrease in demand due to declining population, such as toll roads, water supply and drainage operations, and public housing, perspectives for "growth" are also required, for example, considering new business development such as overseas operation or creation of new services using facilities, in addition to improvement of asset management by utilizing the private sector's knowhow.

The Government needs to aggressively promote PPP/PFI, including PFI concession projects.

# <Key policy measures> Expansion of private participation in public services/ assets through PPP/PFI

## 3. Creation of innovation/ development of human resources full of fight

## (1) Strengthening creation of innovation, startup companies

It is finally time to "take action" towards realization of university and National R&D Institute reforms.

As the fourth industrial revolution has begun, open innovation is gathering momentum more than ever before. Technological innovation is so difficult to predict that the question of who you work with is becoming increasingly important in management decisions. There are high expectations and great responsibilities on universities and National R&D Institutes. It is not too much to say that realization of an economy of 600 trillion yen GDP rests on whether universities and National R&D Institutes can really be reborn.

Why haven't we seen big progress in industry-academia collaboration so far? That is not a problem concerning universities and National R&D Institutes alone. How can heads of universities and National R&D Institutes and companies build a win-win relationship in their respective management strategies? The perspective needed to answer this question is exactly what is needed when thinking about industry-academia collaboration to be achieved: it is not collaboration between individual researchers and research departments of companies but full-scale partnership.

Of particular note is that the key to victory in the fourth industrial revolution is the area related to artificial intelligence. As the competition increasingly takes the form of war of real data in places where Japan holds advantage including manufacturing, Japan still stands a chance of winning. How should Japan leverage its technical advantage over AI-related technology and real business fields and grapple with the fourth industrial revolution? The next few years will be decisive. There will be no bright future for Japan if the country fails to eliminate vertical divisions of academia, industry, and government and work hard. The country's fate rests on whether it can keep such a sense of crisis.

The fourth industrial revolution also heralds the era of startup companies. It is nothing else but startups which can take on a bold challenge in a speedy manner with agile decision making capabilities that should play a central role in realizing an economy of 600 trillion yen GDP. While local startups make a foray into the global market, large corporations are enthusiastically looking for promising startups as partners for their open innovation. Time is ripe for the advent of world-class startup companies.

## <Key policy measures>

 Organization-to-organization full-scale industry-academia collaboration (tripling investment from companies to universities National R&D Institutes and etc.; establishing five world leading research bases staffed with top researchers from Japan and overseas, by FY2025)

- 2) Fleshing out strategies for research and development and industrialization in the "The Artificial Intelligence Technology Strategy Council"
- 3) Development of "Platform Bridging Between Provincial cities and the World"

#### (2) Developing and securing human resources to lead economic growth

The Government will get down to developing and securing of human resources capable of supporting the fourth industrial revolution seriously.

It is "people" that create added value from utilizing data. As the technologies related to artificial intelligence, etc. advance, the details of work and the way people work are expected to change dramatically. But, after all, "people" are the ones that come up with business models which produce added value. And such talent is not easy to come by. As investment in future, it is important to develop educational systems of each stage such as education in elementary school, junior-high school, and high school, all the way up to human resources training for world-class talent by reading trends of the time from short-term, medium-term, and long-term perspectives.

The fourth industrial revolution brings along various changes to the field of education as well. The Government will need to establish a way of teaching that meets today's needs by striking the right balance between respecting traditional teaching and introducing new measures using tablet computers and other IT tools.

Development of human resources and establishment of an education method which are appropriate for today's needs cannot be fully realized by educational circles alone. It is important to develop a system which provides updated information on what kind of talent is in demand in the real world of business, and what kind of educational methods could be available based on the latest technology.

To generate innovative ideas, diversity in human resources is indispensable. People with various backgrounds, experience, and views get together and stimulate with each other, which will lead to innovative inspiration. Countries will be increasingly vying for excellent talent. In that regard, Japan needs to invite excellent foreign human resources and have them contribute to the country's economic growth over a long period of time. To this end, the Government needs to develop environment to accept such talent, otherwise, Japan will be left behind in the race.

## <Key policy measures>

- 1) Development of and training measures for human resources who will support the fourth industrial revolution
- 2) Holding the "Council for Promoting Human Resource Development to respond to the Fourth Industrial Revolution"
- **3) Introduction of "Japanese Green Card for Highly Skilled Foreign Professionals" which is the fastest such system in the world**

# (3) Improving employment environment and promoting participation of various workers to overcome growth restrictions

For achieving an economy of 600 trillion yen GDP, declining population presents an unavoidable challenge. The Government needs to take measures to increase the birth rate as soon as possible. It is interesting to know that if a husband does not help with housework or childcare when a first child was born, his marriage is very unlikely to have a second baby. In this regard, what is important is a reform to how men work.

Working style reforms contribute to productivity improvement as well. Free time realized by working style reforms can be used for self-study, or spent with family, which will relax one's mind. This is how working style reforms will contribute to the "quality" of work.

Promotion of women's participation in society is a pillar of the Abe administration, and it should not be considered as an easy solution to securing labor. Women's participation will bring along a variety of values to the economy and society, and will contribute to creation of innovation. Women's further involvement is indispensable for the Government's effort for structural reforms in the economy and society, and therefore, the Government will go all out to overcome problems hindering women's participation such as children on nursery school waiting lists.

Resources held by the elderly, namely, knowledge, experience, business

knowhow, and personal connections, are too valuable to be missed out on in terms of both economy and development of next generation of human resources. So, the Government should let seniors who want to work as long as possible. By preparing social environment to make that possible, the Government can grant their wish and also expect them to live a spiritually fuller life. Therefore, promotion of seniors' social participation continues to be an important agenda as well.

#### <Key policy measures>

- 1) Enhancement of efforts to remedy long working hours
- 2) Promotion of further social participation of women and elderly persons

#### 4. Taking in overseas growing markets

The TPP signed in February 2016 will bring about great opportunities to take in huge growing markets of 800 million people in Asia and the Pacific, which account for approximately 40% of the world's GDP. The government will make all-out efforts to support for expanding business of small and medium-sized companies to overseas markets, through utilizing experts aquainted with overseas business to provide comprehensive support in developing their business strategies, helping their access to local human resources, and cultivating their sales channels.

In addition, the government will push forward to achieve early entry into force of the TPP and expand its member countries/regions, and strategically and expeditiously promote negotiations on other economic partnerships, including the Japan-EU EPA, Regional Comprehensive Economic Partnership (RCEP), and Japan-China-Republic of Korea FTA. Playing central roles in building such wide-area new economic order, Japan aims to take the lead in establishing comprehensive, balanced and high-level global rules. Japan will also accelerate its efforts for concluding/amending investment agreements and tax treaties, intending to provide appropriate business environment for Japanese companies to expand their business overseas.

Demand for infrastructures is increasing on the global scale. Competition for drawing on its demand is also getting fiercer. To meet infrastructure demand in Asia and other regions, it is important for the government to further intensify ongoing public-private cooperative efforts. In addition, in accordance with the "Expanded Partnership for Quality Infrastructure", it is also important for the government to increase the supply of financial resources towards infrastructure projects including natural resources across the world, aiming to achieve approximately \$200 billion for the next five years, as well as to improve further relevant measures and to strengthen the institutional capacity and financial grounds of Japan's relevant organizations including JICA, JBIC, NEXI and JOGMEC. In order to differentiate the strategy from our competitor nations, the government will take government-wide effective measures, not only providing financial support but also conducting strategic public relations activities, promoting the importance of quality infrastructure investment in the process of developing relevant international standards and providing effective supports in line with the needs of partner countries such as developing local human resources.

Taking opportunities afforded by the TPP, the government intends to increase more inward foreign direct investment, aiming to serve as trade/investment global hub. Many nations are facing fiercer competitions to attract foreign investors. It is necessary to formulate policies to attract foreign companies' attentions to Japan, working with local governments to steadily call attentions to Japan's advantageous points and local strengths. It is also necessary to further enhance initiatives to provide more friendly business and living environment for foreign companies and foreign nationals.

#### <Key policy measures>

1) Promoting economic partnership negotiations and concluding/amending investment agreements and tax treaties

2) Supporting small and medium-sized companies expanding their business overseas, drawing on opportunities afforded by TPP

3) Increasing infrastructure exports

4) Promoting inward foreign direct investment

# 5. Utilizing reform momentums (Pushing ahead with "Reform 2020" projects)

In 2020, Japan will host Tokyo Olympic and Paralympic Games. The nation will attract world-wide attentions, leading to a lot of foreign tourists visiting Japan. Setting the year 2020 as a goal and pushing ahead with reforms and innovations to showcase Japan will create significant momentum.

To this end, we will showcase Japan's highly competitive technologies, while paying due attentions to yielding legacies that will last even after 2020. We intend to open the way for Japan and for the world by implementing our future-looking projects toward 2020, such as: Taking care of automatic driving solutions where developers are competing one another to establish new business models on the world-wide scale; solving environment/energy problems that represent the world's common agenda; and utilizing state-of-the-art robots that will contribute to a wide variety of problems, including population decrease and aging society.

#### <Key policy measures>

"Reform 2020" projects (Automatic driving technologies, distributed energy resources, state-of-the-art robots, etc.)

#### III. Future Initiatives to Realize Further Growth

(Intensifying PDCA cycle through KPI review)

As the second stage of our growth strategy, the growth strategy presented here aims at further reform in the three topics: "Productivity Revolution," "promising markets" and "human resources enhancement." We have been setting out KPIs for our growth strategies to date. In line with our growth strategy's second stage, we have reorganized/reset KPIs for each policy category, set out new KPIs for new areas and have made upward adjustment if KPI is likely to improve further.

Resetting KPIs in itself is not a purpose, but is an approach to push ahead with our policy actions. If thorough KPI review has revealed any unsatisfactory outcome, it is important to steadily operate the PDCA cycle, such as intensifying validation/evaluation tasks to identify why it is not so successful, which additional policy action is necessary for attaining the target or whether KPI should be reviewed or not.

In this process, rather than putting focus on listing up the reasons why KPI does not go steadily to attain the target, it is necessary to correlate problems in the C (check) stage with the A (action) stage. This is the most important role of KPI review. As several policy actions or government ministries/agencies are involved with policy actions with KPIs, it is necessary to make a study with them. In addition, Industrial Competitiveness Council should play a leading role in this process.

#### (Addressing the Fourth Industrial Revolution)

"Public-Private Council for the Fourth Industrial Revolution," a new unit under the Headquarters for Japan's Economic Revitalization, will work with related government councils to examine feasibility of new strategies in highly competitive and high-priority sectors that draw on Japan's strengths and possible government-wide policy actions, such as innovation- or human resources development-related policies.

In terms of our high-priority areas, as business creation competition is getting stiffer in the world, it is important to make efforts for turning each of new business opportunities into actual business. While suggesting future solutions both for the private and public sectors based on feasibility of new business models at home and abroad, we will simultaneously take policy actions and regulation/system reforms necessary for putting these business models into practice. In addition, the government will also strive to reduce costs related with regulations and administrative procedures, aiming to become "the most business friendly nation in the world."

All-out efforts will start in the near future in terms of innovation and human resources development, which serve as cross-sectional policy action that support the Fourth Industrial Revolution.

Our national university reform and national R&D agency reform projects will be put into practice in the immediate future. In artificial intelligence-related sector that serves important roles in the Fourth Industrial Revolution, we will push ahead with specific strategies and actions, while widely watching Japan's technical strengths and overseas trends. Each university or national R&D agency will work on their visible specific projects based on their strengths, including making judgment on what it should aim at, who it should work with, and what it should do.

In human resources development, new projects will start to examine possible skills and tasks necessary for business purposes in the Fourth Industrial Revolution era. By clearly identifying necessary skills and tasks as much as possible and working with the industrial circle, human resources developers and education-related staff to discuss which program or what teaching method is the most effective, it is necessary to put these inputs into actual actions.

As more and more Japanese workers will have a mindset "taking a job," rather than "serving for a company" for their entire life, our way of working is also anticipated to change significantly. Because people with a wide variety of ideas and backgrounds get together and have discussions, which will lead to inspirations and create innovative business models, we will see increased need to make Japan a nation that attracts innovative human resources from the world. We need to further examine how our way of working for individual workers will change, how labor outcome should be appropriately evaluated, and what we should do to attract more overseas high-quality human resources to Japan.

(Conducting and putting into practice "10 strategic public-private joint projects")

In the growth strategy herein, structural reform outcomes to date from Abenomics are clearly described as new "promising market," which will attract more human resources, goods and money. In this context, the growth strategy suggests "10 strategic public-private joint projects" because the government will further improve productivity under friendly competition and decisively address systematic problems that come to the surface. We should not end in mere sloganeering. In particular, we will have close contacts with the economic circle to identify content of each project and put them into actual practice on site. The public sector will provide appropriate environment, such as regulatory reforms, while the private sector will make innovation investment through "growth-oriented business management." Literally, the private and public sectors must both make their all-out efforts to implement and put into practice each of these projects. It is important to employ KPI review and some other approaches to closely check out how these projects are progressing.

#### (Challenges in Abenomics' 2nd stage)

We can afford no further delay in achieving "GDP 600 trillion yen economy." It is necessary to push ahead with the following actions in an integrated manner: Working on structural reform that serve as core policy, creating/fostering growth market and new business models surrounding the structural reform, and creating innovations and fostering human resources that will serve as the foundation of growth.

To cope with the era of reform, open the way for Japan's future, and hand off brilliant future to the next generation, now is the time for all Japan stakeholders in government-industry-academia collaboration to take specific actions quickly. This represents our challenges in Abenomics' 2nd stage.

## IV. Principal Policy Measures of Japan Revitalization Strategy 2016

With regard to Japan Revitalization Strategy 2016, as shown in the following chapter, the government has reviewed how much the last year's "Japan Revitalization Strategy Amendment 2015" has progressed, flexibly reexamined specific policy actions, and expressed appropriate policy to be taken in the future by adding new specific policy actions to be taken and revising the entire roadmap.

Following are the measures which have been selected, based on the discussions in the Industrial Competitiveness Council, from the viewpoint of the fundamental idea of the Japan Revitalization Strategy 2016. (Note: The following sections show examples of policy actions and do not indicate their importance or priority.)

## 1. "10 strategic public-private joint projects" toward GDP 600 trillion yen 1-1 Creating new promising growth markets

(1) The Fourth Industrial Revolution (IoT, big data and artificial intelligence)

1) Setting up "the Fourth Industrial Revolution Public-Private Council" that serves as the overall control center

• As the overall control center for the government-wide actions related with the Fourth Industrial Revolution, the Fourth Industrial Revolution Public-Private Council will be established under Headquarters for Japan's Economic Revitalization in order to take control over the government's overall efforts.

[Set up the Council in this summer]

- 2) Creating specific R&D and industrialization strategies at "Artificial Intelligence Technical Strategy Council"
- "Artificial Intelligence Technical Strategy Council," set up this April as the control center in charge of developing/implementing technical strategies based on Japan's strength under industry-government-academia collaboration in artificial intelligence will develop artificial intelligence R&D goals and industrialization roadmap for

industry-government-academia collaboration purposes and push ahead with various efforts in an integrated fashion, ranging from R&D and putting them into practice.

[Prepare the roadmap within this fiscal year]

3) Regulatory/systemic reforms ("goal-based inverse calculation roadmap style," "pushing ahead with regulatory reform, simplified administrative procedures and IT dissemination in an integrated manner," promoting data-based projects beyond corporate/organizational boundaries, and providing secure environment)

• After sharing future business images between the public and private sectors with specific deadline, create an inverse calculation roadmap and introduce new regulatory reform mechanism "roadmap approach" to carry out specific reform projects.

[Introduce the scheme from this summer onward]

 Strongly push ahead with the Fourth Industrial Revolution by actualizing automatic driving solutions and smart factories, using small unmanned aerial vehicle for industrial purposes, increasing smart industrial safety and promoting Fintech and some other solutions.

[Automatic driving solutions: Create appropriate demonstration-purpose schemes/infrastructures by 2017]

[Smart factories: Create at least 50 pioneering projects by 2020] [Small unmanned aerial vehicle: Coordinate a rough direction of new system by this summer]

[Industrial safety: Launch flexible regulations and demonstration projects to encourage IoT utilization within this fiscal year]

• Set up new conference and coordinate necessary policy actions towards sound development of the sharing economy.

[Coordinate by this autumn]

• Under the recognition that cyber security is not "cost" but "investment for the future," put more emphasis on growth industries, develop new human resources development programs and examine appropriate important infrastructures protection and review of action plans.

[Develop and announce human resources development program within this fiscal year]

[Review action plans by the end of this fiscal year]

4) Promotion of business metabolism and streamlining of business

restructuring toward the fourth industrial revolution.

• Aiming at accelerating R&D, strategic investment and quick business reorganization that bring about innovations, examine feasibility and necessity of policy actions and take necessary actions, including systemic approaches, with eye on legislative measures, and take necessary actions.

[Draw conclusion within this year]

- 5) Creating specific human resources development and education-related programs at "Council for Promoting Human Resource Development to respond to the Fourth Industrial Revolution"
- Hold the "Council for Promoting Human Resource Development to respond to the Fourth Industrial Revolution" for the purpose of fostering human resources who will sustain the Fourth Industrial Revolution, consider the required skills and businesses, etc. with the attendance of people from the relevant government bodies, the industry and so on, and reflect them in the government's human resources and education policies.

[Hold by the end of this year]

6) Expanding the Fourth Industrial Revolution to medium-sized and SMEs

• IT, Kaizen activity and robot technology experts will help medium-sized or SMEs in collaboration with projects of SME associations.

[Provide support to at least 10,000 firms in the next 2 years]

• Aiming at accelerating spread-out of robots to medium-sized or SMEs, reduce at least 20% of small-sized general-purpose robot price and installation cost and increase two-fold human resources (15,000 persons to 30,000 persons) that support robot-based system establishment/installation (system integrators).

[Achieve this goal by 2020]

#### (2) Toward a world leading healthcare country

- Providing diagnosis support and innovative new drugs and medical device by utilizing Big Data, etc. (development of new platform in which medical treatment and examination data is widely collected, managed and de-identified in a safe manner)
- Toward encouraging R&D on new drugs and medical treatment based on information in medical sector or some other fields, examine feasibility of

"Agency services (tentative name)" that widely collect medical treatment and examination data, achieve new safe management and anonymous framework and utilize them. In this process, examine appropriate framework beneficial for medical staff and patients; for example, new framework that utilizes massive data collected by "Agency services (tentative name)" and is capable of providing evidence-based diagnosis support in the medical sector. [Establish necessary legal framework within the next year]

- 2) Providing personalized healthcare services using IoT, etc. (putting together, analyzing and utilizing health insurance claims, medical checkup and health data) and promoting the use of uninsured services for health and prevention
- Aiming at providing "personalized health services" suitable to personal needs, put together and analyze healthcare insurance claims, medical checkup or other health data held by the insurer or employers or available on a daily basis from wearable devices by obtaining consent of the person in question and launch a demonstration project that provides personalized healthcare services. As for incentive reform to enhance preventive and health practices provided by medical insurer, policymakers should design new scheme, including the aforementioned efforts, to give incentives for ICT-based preventive and health practices.

[Demonstration project will start within this fiscal year]

- Improving the quality and productivity of nursing-care by utilizing technologies such as robot, sensor, etc. (examining feasibility of providing appropriate framework, including review of nursing-care benefits, manpower allocation and facilities criteria)
- New demonstration project that collects/analyzes outcome data, such as improved productivity on nursing-care services due to introduction of robots, etc., is scheduled to start this fiscal year. Based on such analytical result, examine, and draw conclusion on, feasibility of appropriate evaluation system on robot-based nursing-care services. This includes review of nursing-care benefits, manpower allocation or facilities criteria in a way to contribute to reducing nursing-care service burdens, while paying attentions to viewpoints of incentives that draw innovations or originality in nursing-care services. By cutting in half document volume required by the government and analyzing/standardizing service operations with ICT-based nursing-care records, encourage improvement in nursing-care operations and promote appropriate services that contribute to elderly people's self-support, aiming to

improve productivity of nursing-care services and thereby reduce heavy burden on nursing-care service staff.

- [Examine and draw conclusion on stance on appropriate evaluation of robot-based nursing-care services in the next fiscal year]
- (3) Overcoming environmental energy obstacles and expanding investment
  - 1) Encouraging energy-saving investment in distribution/service sectors and at SMEs
  - Expand the energy-saving industry top-runner program to distribution/service sectors.

(Cover 70% of energy consumption of all industries by FY2018)

 In addition to energy reduction volume, reexamine feasibility of productivity improvement support programs and Energy-Saving Act-based regulatory framework, such as improving energy consumption rate, and enhancing energy-saving efforts at the sector/supply chain level.

[Draw conclusion within this fiscal year]

• Aiming at encouraging residential energy-saving efforts, expand eligibility of the top runner criteria to incandescent lamp and some other sectors in this fiscal year. Increase the number of net zero energy houses to more than a half of new custom-built houses of house builders, and send up two-fold energy-saving renewal projects by 2020.

2) Encouraging introduction of renewable energies and establishing new energy system (Achieving hydrogen society through full-scale diffusion of fuel cell vehicles and creating "power-saving (negawatt) trading market")

- Towards creating a hydrogen society, accelerate introduction of fuel cell vehicles and hydrogen stations.
- [Fuel cell vehicles: Increase the number of fuel cell vehicles to some 40,000 by 2020 and to approximately 800,000 by 2030]

[Commercial hydrogen station: Increase the number of hydrogen stations to some 160 by FY 2020 and to some 320 by FY2025]

• Aiming at encouraging new energy management business that manages/controls residential-use photovoltaic power generation systems and batteries through IoT in an integrated manner and utilizes them in electric power trading, create "power-saving (negawatt) trading market" in which market players are able to sell the electric power that they actually save. To this end, prepare trading rules for market players and create appropriate communications protocols for energy equipment remote control.

[Creation of trading market: Within the next year; Creation of communications protocols: Within this fiscal year]

3) Enhancing the resources security

• Actively support risk money supply, etc. through JOGMEC (Japan Oil, Gas and Metals National Corporation).

### (4) Changing sports to a growth industry

- 1) Changing sports facilities to more attractive and enhancing their profitability
- Aiming at making stadiums and gymnastic halls more attractive and enhancing their profitability, develop new guidelines on facilities development and operational practices, regarding facilities access, their scale, ancillary facilities and services.

[Develop such guidelines in this fiscal year]

- 2) Creating new platform that fosters and utilizes sports business human resources
- Aiming at improving the operational capabilities, profitability and governance of sport-related organizations, examine and draw conclusion on feasibility of creating new platform that fosters professional and practical skills and provides matching services for a wide variety of human resources inside/outside the sports circle.

[Draw conclusion in this fiscal year]

3) Integration and expansion of sports with IT, healthcare, tourism, fashion, culture and arts, etc.

• Examine and draw conclusion on possible approaches that create new values for sports via digital technologies (IT) and create/expand new sports market through integration with other sectors, such as health industry.

[Draw conclusion in this fiscal year]

## (5) Revitalizing existing housing trading/renewal market

OCreating an existing housing trading market where houses are evaluated as an asset

• Provide support to formation of new trading/financial schemes where existing houses are appropriately evaluated as an asset, and create high-quality and attractive "Premium existing house (tentative name)" new registration system.

[Create such scheme in this fiscal year]

## **1-2: Deepening local Abenomics**

### (6) Improving productivity in the service industry

- 1) Creating pioneering firms that play leading roles in improving productivity in the service industry
- By providing support to IT-based innovative service development efforts through mobilizing all policy actions, including

"Manufacturing/Commercial/Service New development Support Subsidy," create 10,000 new firms nationwide that enjoy 10% productivity growth rate by 2020.

[Create 10,000 new growth firms with 10% productivity growth rate by 2020]

2) Improving productivity of each operating sector

• Based on "SMEs Business Enhancement Act" (passed on May 24,2016), develop new sector-by-sector guidelines for productivity improvement, such as 7 sectors (transport, medical, nursing-care, childcare, restaurant, accommodation, wholesale and retail sectors) and provide support to IT installation and corporate management guidance in line with characteristics of the service industry.

[Develop new guideline as soon as possible]

3) Improving productivity at local level through utilizing SME support organizations, etc.

• Utilize Local Revitalization Promotion Subsidy, etc. to push ahead with establishing regional councils or other opportunities that examine, conduct and disseminate specific approaches to enhance competitive edge and productivity of regional service sectors.

### (7) Creating innovative medium-sized firms, SMEs and micro enterprises

- 1) Supporting growth of regional core firms looking to the world market
- Identify regional economy's pioneering medium-sized firm candidates through Regional Economy Society Analyzing System (RESAS), and intensively provide support, such as planning their commercialization strategies for the world market, conducting R&D with eye on possible sales channels, and developing new overseas sales channels.

[Support some 1,000 innovative projects in 5 years, with the target of providing aid to some 200 projects every year]

- 2) Supporting regional SME's overseas expansion in the wake of TPP
- Aiming at helping cultivation of massive markets in the wake of TPP, provide comprehensive support to Japanese medium-sized firms and SMEs under "New Major Export Nation Consortium."

[Started operations this February]

3) Supporting productivity improvement at medium-sized firms, SMEs and micro enterprises through IT utilization

• Raise IT awareness among business owners by holding IT utilization counseling sessions, help at least 10,000 firms in the next two years by giving aid from IT, Kaizen activity and robot technology experts, and push ahead with IT investment and labor-saving investment in line with actual business practices, ranging from micro enterprise's online sales projects to SME's data utilization efforts.

- 4) Encouraging "local benchmark"-based growth fund supply not dependent on collateral or personal guarantee, enhancing financial capabilities and accelerating business revitalization or business succession
- While utilizing "local benchmarks" developed this March as corporate performance indicators, encourage growth fund supply to enterprises striving for improving productivity without collaterals or personal guarantees by deepening dialogues between enterprises and financial institutions/SME support organizations.
- Reexamine credit guarantee programs so that financial institutions and enterprises will both make further efforts to improve their business performance and productivity. In addition, examine necessary approaches to create effective business revitalization support programs, achieve smoother business succession and encourage corporate management innovation in the

wake of business succession.

# (8) Promote proactive agriculture, forestry and fishery, as well as reinforce export

1) Enhancing capabilities of farmland intermediary management institutions

• Aiming at enhancing prefectural government's incentives to utilize the said institutions, create new scheme that gives preferential treatment to prefectures that show good performance in their farmland intermediary management institutions.

[Introduce this scheme in budget allocation process after calculation of actual performance]

2) Reducing production materials cost and creating distribution/processing structure beneficial to producers

• Aiming at increase income for farmers, put together specific policy actions in this autumn, including new approach in which farmers are able to select and procure production materials at a lower price, or other policy actions for new distribution structure that provides a wide variety of options so that farmers will be able to decide their buyers and selling prices under their own responsibilities.

[Draw conclusion in this autumn]

- 3) Enhancing human resources capabilities
  - Aiming at enhancing business management, technical and labor capabilities that make up the overall human resources capabilities, coordinate specific policy actions to secure next-generation human resources and create appropriate environment in which farmers will be able to learn new knowhow.
- 4) Reinforcement of export
  - Aiming at enhancing export capabilities in Japan's agriculture, forestry and fisheries industry as well as drawing on the world's food market mainly growing in Asia for expanding sales channels for Japan's agricultural/fishery products or foods, provide support to strongly-motivated projects of farmers/fishers/foresters and cope with foreign regulations that the private sector is unable to address on its own, based on "Agriculture, Forestry and Fisheries Industry's Export Capability Enhancement Strategy" (coordinated by Agriculture, Forestry and Fisheries Industry and Regional Revitalization

Headquarters on May 19, 2016).

- 5) Pushing ahead with smart agriculture
  - Develop safety guideline in this fiscal year so that in-field unmanned automatic driving systems under manned supervision will be commercially available by 2018 at latest. Push ahead with joint research efforts and related schemes in order to create remote monitoring-based unmanned automatic driving systems, such as mobility between agricultural fields, in 2020 at latest. [Develop safety guideline within this fiscal year]

[Successfully develop remote monitoring-based unmanned automatic driving technologies by 2020]

6) Establishing collaborative scheme between agricultural and industrial circles
• Enhance tie-up between agricultural and industrial circles to push ahead with model R&D with state-of-the-art technology corporations and develop new products in tie-up with regional commerce/industry chambers/associations.
• Create a human resources matching scheme in collaboration with industrial

• Create a human resources matching scheme in collaboration with industrial sector so that agricultural corporations will be able to hire their human resources with working experiences or skills in other industries in order to expand their business operations.

### (9) Tourism-oriented country

1) Enhancement of the attractiveness of tourism resources (Opening up State Guest Houses and utilizing cultural assets and national parks)

- Boldly open up to the public the state guest houses in Akasaka and Kyoto and other governmental facilities with full of Japan's history and traditions.
- Aiming at putting more emphasis on "providing support to comprehensive utilization of regional cultural assets," shifting away from traditional "preservation-oriented support" programs, develop "The Strategic Program for Promoting the Use and Understanding of Cultural Assets 2020" and establish tourism bases with focus on Japan Heritages and cultural assets.
  [Develop the program at the beginning of this fiscal year, and establish about 200 tourism bases nationwide by 2020]
- Aiming at branding Japanese national parks as the world-class "national

parks," intensively carry out the projects, such as developing "The National Parks Step-up Program 2020 (tentative name)" for 5 national parks at first, attracting private-sector's insights and funds, launching high-quality plans enjoyable for foreign visitors, showing high-quality feeling and intensifying information dissemination.

[Develop the program within this fiscal year]

2) Revision of tourism-related regulations and systems (expanding guide-interpreter services, etc.)

• Aiming at expanding guide-interpreter service supply, revise guide-interpreter system, including "service monopoly schemes" while keeping service quality. In addition, grasp actual situations of tour operators by introduction of their registration scheme and examine feasibility of appropriate guidance/supervision system for problematic tour operators.

[Revise related systems within 2017]

3) Promotion of establishing and developing Destination Marketing/Management Organizations (DMOs)

• Implement 100 attractive tourism investment projects nationwide, support these projects with public-private funds and develop 100 world-class DMOs nationwide by 2020.

[Develop 100 world-class DMOs nationwide by 2020]

- 4) Development of tourism human resources
- For development of top-level managers that play leading roles in the tourism industry, develop education programs in government-industry-academia collaboration and start all-out efforts for setting up tourism administration graduate school (MBA) programs at Japan's top-level universities.

[Start all-out efforts in this fiscal year]

• Aiming at strengthening development of human resources that play central roles in regional tourism, develop standardized curricula for tourism school programs at the university level. In addition, improve education programs in collaboration between the industrial sector and education institutes including special training schools, in order to develop regional practical tourism human resources immediately ready for regional tourism.

[Start all-out efforts in this fiscal year]

5) Improvement of regional tourism environment to accept an increasing number of foreign visitors to Japan

• As for regional problems identified at regional bloc liaison committees set up in the last March, take quick actions by clearly identifying players and deadlines for each problem, paying due attentions to the new goal of the number of foreign visitors to Japan.

6) Promotion of taking leaves/ staggered holidays

- Encourage education committees and schools to flexibly set and diversify school nonworking days, work with the industrial sector for extending annual paid leaves by 3 additional days and encourage central government's civil servants to take their annual leaves in line with school nonworking days.
- 2. Regulatory and Institutional Reforms Making the Revolution in Productivity Happen
- (1) Introduction of a new mechanism for regulatory and institutional reforms
- i) Introduction of a roadmap approach for designing concrete reforms by counting backward from the future image of industrial innovations
  - The government and the private sector will once share the future business image that they should aim to realize by designating a deadline. Then they will draw up a roadmap by counting backward from there and introduce a new mechanism for implementing regulatory and other reforms, also known as a "roadmap approach by counting backward from the goal."

[Aim to introduce it in or after this year's summer]

- ii) Introduction of a new methodology for regulatory and institutional reforms to promote regulatory reforms, simplification of administrative procedures, and evolution of information technology in an integrated and unified manner from the entrepreneur's perspective
- First of all, reach a conclusion toward fundamental simplification of regulatory and administrative procedures relating to activities of foreign companies making investments in Japan within one year.

[Reach a conclusion within one year (with respect to those issues for which a conclusion can be reached early, determine concrete measures as advanced efforts within this year, and start to implement them)]

• Taking the status of the performance of the above-mentioned efforts into consideration, conduct surveys on how foreign countries are coping with those issues, consider how regulatory and procedural costs should be reduced and goals should be set up and then

decide focused areas where the government should promote regulatory reforms, simplification of administrative procedures; and evolution of information technology in an integrated and unified manner and on a full-scale basis by the middle of next year, and promote systematic efforts.

[Decide focused areas and reduction goals by the middle of next year]

## (2) Utilization of National Strategic Special Zones (a breakthrough for structural reforms)

• Develop an environment where it is easiest in the world to do business so that the private sector can fully demonstrate their capabilities by designating the period of two years up to the end of FY2017 as "intensified reform reinforcement period" and setting up the effort of breaking through the "bed-rock regulations" that has still remained as a "new goal," and ultimately connect it to an economic growth.

[Take prompt statutory and other measures for the regulatory reform targets, including those to be addressed at the next Diet session]

#### (3) Institutional reforms toward the investment in the future

#### a) Strengthening of corporate governance

- i) Improvement of the effectiveness and efficiency of disclosure of corporate information which will operate as a basis of constructive dialogue between companies and investors
- From the standpoint of promoting dialogue between companies and investors mentioned in the "Stewardship Code" and based on the previous discussions at the meetings of the Financial System Council, the relevant government bodies and Tokyo Stock Exchange, Inc. will work together to have trans-system and cross-government discussions, and aim to embody a disclosure system which is globally most effective and efficient and develop an environment which is designed to set reasonable schedules and record dates for general meeting of shareholders by sorting out, and eliminating duplications of, disclosure items under the systems of the Companies Act, Financial Instruments and Exchange Acts, and the relevant stock exchange securities listing regulations in the first half of 2019.

[Develop an environment for embodying globally most effective and efficient disclosure and setting reasonable schedules and record dates for general meeting of shareholders: Aim to realize them in the first half of 2019]

[Organize the approaches of the relevant government bodies for unified disclosure of business report and annual securities report, and decide concrete ways to move it on with respect to items that can be shared in the both reports: Within this fiscal year]

[Assess and analyze details of reviews of consolidated financial results releases for quarterly disclosure, and the resulting influences and effects, and identify points that require improvements in the future: Start sequentially within this year]

- ii) Computerization of the general meeting of shareholders processes
- Consider what concrete legislative measures to take, while aiming to start improvement of the legislative system under the Companies Act early next year, in principle, in order to enable electronic provision of attachments to the notice of convocation of the general meeting of shareholders (such as the business report and financial statements).

[Aim to start improvement of the legislative system under the Companies Act early next year]

## b) Smooth supply of growth money through realization of vigorous financial and capital markets

- i) Promotion of portfolio rebalancing and development of market environment that will contribute to supply of growth money.
- The Financial System Council will discuss points of issues to ensure fiduciary duty, develop tools in support of long-term stable investments, and secure the fairness, transparency and stableness of the market.

[Aim to reach a certain conclusion within this fiscal year]

- ii) Exhibition of quality financial intermediary functions (reinforcement of the efforts such as feasibility study finance and principal business support)
  - Establish various types of benchmarks to assess financial intermediary initiatives

[Establish them within this fiscal year]

- iii) Promotion of FinTech (e.g., formulation of FinTech ecosystem)
- Consider issues and responsive actions surrounding FinTech, and proceed to formation of an environment in which FinTech enterprises can grow (i.e., FinTech ecosystem)

[The Panel of Experts on FinTech Start-ups to start discussion promptly]

- iv) Thorough utilization of big data (such as standardization of data that can be collected in connection with credit card transactions)
- Promote standardization of data that can be collected in connection with credit card transactions

[Reach a conclusion on standardization within this year]

## c) Expanded opening of public services and assets to the private sector through PPP/PFI

• With the goal of attaining the numerical target of expanding the business size of PPP/PFI to 21 trillion yen by FY2022 that is mentioned in the "Action Plan for Promotion of PPP/PFI" (decided by the Council for the Promotion of Private Finance Initiatives on May 18, 2016), reinforce the efforts both in the growth-based areas such as airports, education facilities (athletic facilities, social education facilities, and cultural facilities), cruising ship passengers terminal facilities, and MICE facilities), and the maturity-based areas such as toll highways, water services, sewage systems, and public housing.

[Expand the business size of PPP/PFI to 21 trillion yen by FY2022]

#### 3. Creation of innovation/ development of human resources full of fight

#### (1) Strengthening creation of innovation, startup companies startup

- Organization-to-organization full-scale industry-academia collaboration (Tripling investment from companies to universities and National R&D Institutes and etc.: Establishing five world-leading research base staffed with top researchers from Japan and overseas, by FY2025)
  - Aim to triple investment from companies to universities and National R&D Institutes and etc. by FY2025. Also create strategic research bases that can invite Japanese and foreign top-level talents and investments through full-fledged industry-academia-government collaboration and global collaboration.

[Create at least five (5) research bases within next fiscal year]

- ii) Embodiment of research and development and industrialization strategies at the "Artificial Intelligence Technology Strategy Council"
- The "Artificial Intelligence Technology Strategy Council" which was formed in April this year, by gathering the wisdom of industry, academia and the government, as a control tower function that will direct formulation and implementation of technology strategies through the use of the strength of Japan will establish research and development goals and a roadmap to industrialize artificial intelligence, thereby centrally promoting the processes ranging from research and development to social implementation.

[Establish a roadmap within this fiscal year]

- iii) Development of "Region-World Bridge Project"
- Expand the efforts for "Silicon Valley-Japan Bridge Project" which started during the last fiscal year to Asia, Israel, Europe, and other regions, keeping connecting it to the "Global Startup Summit (tentative name)" to be held in 2020 in mind.

[Start to implement in this fiscal year]

• The government bodies will implement measures on startups to build up a "consortium of the government bodies" that will provide support with focus on discovering promising local startup companies and assisting them in making a challenge to the global market, set up an "advisory board" consisting of members from the private sector, and support challenges of startup companies to the global market and give advice on the government's startup support policy.

[Build it within this fiscal year]

#### (2) Fostering and securement of human resources who can explore economic growth

- i) Measures to foster and educate human resources who will sustain the Fourth Industrial Revolution
- Review new National Course of Study that will be started sequentially in FY2020 in order to ensure fostering of the ability to utilize information through learning at primary and secondary education from a perspective of active learning, learning guidance according to students' individual levels of academic achievement utilizing IT effectively (adaptive

learning), and compulsory activities of programming education according to development levels.

[Implementation of new National Course of Study including compulsory activities of programming education: FY2020 for elementary schools; FY2021 for junior high schools; and FY2022 for senior high schools]

• Promote development of faculties and graduate schools that will foster top-level data scientists and other professionals, and reinforce university-wide mathematics education (formulation of standard curricula) to reinforce mathematical sciences and information education at higher education institutions.

[Start concrete efforts in next fiscal year]

• Specified national research and development corporations and top-level research centers and universities in Japan will work together to conduct top-level researches into IoT, big data and artificial intelligence and foster human resources who will sustain the Fourth Industrial Revolution, while inviting the world's class researchers in a unified manner.

[Start to implement them in this fiscal year]

- ii) Holding the "Council for Promoting Human Resource Development to respond to the Fourth Industrial Revolution"
- Hold the "Council for Promoting Human Resource Development to respond to the Fourth Industrial Revolution" for the purpose of fostering human resources who will sustain the Fourth Industrial Revolution, consider the required skills and businesses, etc. with the attendance of people from the relevant government bodies, the industry and so on, and reflect them in the government's human resources and education policies. [Reprinted]

[Hold by the end of this year]

- iii) Introducing of the world's fastest such system of "Japanese Green Card for Highly Skilled Foreign Professionals"
- Introduce the world's fastest such system of "Japanese Green Card for Highly Skilled Foreign Professionals" by substantially reducing the period of stay required before highly skilled foreign professionals can apply for permanent residence from the current five years.

[Take necessary measures as soon as possible]

## (3) Improving employment environment and promoting participation of various workers to overcome growth restrictions

- i) Enhancement of efforts to remedy long working hours
- Reinforce supervision and guidance of labor standards office, including ensuring supervision and guidance of places of business that are suspected of having their employees work overtime in excess of eighty hours a month, and reinforcing supervision and recommendation when a notification of the Article 36 agreement setting forth overtime work in excess of eighty hours a month is submitted.

- Reconsider how the overtime work regulations in the Article 36 agreement should be, while making efforts for early passage of a bill of amendment to the Labor Standards Act submitted to the Diet in April last year.
- Incorporate well-refined measures, such as measures to place an interval between work hours, into the guidelines under the Act on Special Measures for Improvement of Working Time Arrangement as concrete examples of voluntary efforts.
- ii) Promotion of further social participation of women and elderly persons
- Steadily promote expanding the capacity of childcare facilities and securement of childcare staff, while securing stable financial sources, through promotion of the "plan for acceleration of elimination of childcare waiting lists," aggressive development of "company-led childcare business," reduction of business burdens through the use of ICT, support for obtaining nursery teacher qualifications, and further improvement of working condition of, and construction of career paths for, nursery teachers.

[Start to implement them sequentially in this fiscal year]

• Clarify how diversity management leading to the growth potential and profitability of companies should be, and consider measures to enhance the appeal of diversity management to companies and investors.

[Initiate a new forum of discussion, and reach a certain conclusion within this fiscal year]

• Enhance supports for companies and other organizations maintaining continued employment beyond the age of 65 and extending mandatory retirement age to the age of 65.

#### 4. Taking in overseas growing markets

- i) Promotion of economic partnership negotiations, and concluding/amending investment agreements and tax treaties
- Push forward to achieve early entry into force of the TPP and expand its member countries/regions, and strategically and expeditiously promote economic partnership negotiations including the Japan-EU EPA, RCEP, and Japan-China-Republic of Korea FTA. Japan will play central roles in building such wide-area new economic orders, and aim to take the lead in establishing comprehensive, balanced and high-level global rules. In addition, Japan will promote concluding/amending investment agreements and tax treaties.

[Aim to sign and/or achieve entry into force of investment-related agreements covering 100 countries and regions by 2020]

ii) Support for overseas expansion of regional small and medium-sized companies taking opportunities afforded by the TPP

• In order to support exploitation of a huge market that will be afforded by the TPP, provide comprehensive support to small and medium-sized companies under the "Consortium for New Export Nation"

[Started the implementation in February this year]

- iii) Increase of infrastructure exports
- In addition to reinforcing supports through investments and loans from public financial institutions and public-private funds and trade insurance, effectively combine government-wide measures including enhancement of feasibility studies (F/S) and demonstration and verification projects, development of local human resources and strategic public relations activities, and development and administration of testing and evaluation facilities to obtain international standards and certifications, thereby reinforcing joint efforts by the government and the private sector towards receiving project orders.
- Strengthen the institutional capacity and financial grounds of Japan's relevant organizations, including JICA, JBIC, NEXI and JOGMEC.
- iv) Promotion of inward foreign direct investment
- Promote business alliance between regional Japanese companies and foreign companies, and strengthen strategic promotion by local governments to attract foreign investment. Also endeavor to reinforce public relations including sales pitches. In addition, make fundamental improvements of business and living environment that would become obstacles to invite foreign companies, through simplification of regulatory and administrative procedures and promotion of foreign language services in living environment.

#### 5. Utilization of a Momentum of Reform (Promotion of "Reform 2020" Projects)

• In promoting each project, the following have been designated as common issues that should be especially tackled in all projects: to identify the entities implementing the project and place of implementation, in principle, within this fiscal year and strictly manage progress of the project; to clarify necessary regulatory forms early; and to keep in mind that the project will contribute to resolution of social issues, including those that is now coming to the surface in the world and will be connected to a legacy that can be succeeded beyond 2020.

(Reference) Potential Effects that May Be Brought by the "10 strategic public-private joint projects toward the Achievement of a 600 Trillion Yen Economy"

Fourth Industrial Revolution	Added value to be created: 30 trillion yen [2020]
Toward a world leading healthcare country	Market size: 26 trillion yen [2020]
	( <i>cf.</i> 16 trillion yen [2011])
Overcome environment-energy constraints and	Energy-related investments: 28 trillion yen
expand investments	[FY2030]
	( <i>cf.</i> 18 trillion yen [FY2014]
Changing sports to a growth industry	Market size: 15 trillion yen [2025]
	( <i>cf.</i> 5.5 trillion yen [2015])
Revitalizing markets for transaction of existing	Market size: 20 trillion yen [2025]
houses and reform	(cf. 11 trillion yen [2013]
Productivity improvement of service industry;	Added value of the service industry: 410 trillion
Renovation of mid-ranking companies, SMEs	yen [2020]
and microenterprises	(cf. 343 trillion yen [2014])
Promote proactive agriculture, forestry and	Sixth Industry market: 10 trillion yen [FY2020]
fishery, as well as reinforce export	( <i>cf.</i> 5.1 trillion yen [FY2014]
Tourism-oriented country	Amount of travel consumption by foreign tourists
	8 trillion yen [2020]; 15 trillion yen [2030]
	(cf. 3.5 trillion yen [2015])
	Total amount of travel consumption by foreigners
	vising Japan and Japanese nationals
	29 trillion yen [2020]; 37 trillion yen [2030]
	( <i>cf.</i> 25 trillion yen [2015])