

Chapter 2 Concrete measures

I Strategic fields aiming for the achievement of Society 5.0

1. Health, Medical and Nursing Care

(1) Main progress status of KPI

《KPI》 Extending the healthy life expectancy of the people by 1 year or more by 2020, and also extending further 2 years or more by 2025 [Male 70.42 years old, Female 73.62 years old (as at 2010)]

=> As at 2013: Male 71.19 years old, Female 74.21 years old

(2) Specific measures to be newly taken

The government will work on the establishment of a new health, medical care and nursing care system that include nursing care with a focus on the optimal health care, medical treatment, and support for independence from the viewpoint of individuals and patients by maximizing the utilization of technological innovation in time for the "2025 Problem" where all baby-boom generations reach 75 years old or higher. The government will also work on the establishment of a data utilization infrastructure in the entire nation so as to realize the extension of healthy life expectancy and independent living of elderly people by providing highly effective services tailored to the condition of individuals. Further, the government will build a model which is of high quality and enables the efficient provision of health, medical care and nursing care services even facing the aging population and population decline while increasing the productivity of the site by combining AI, robots, and the like. In order to support such mechanisms, the government will promote effective private service development and dissemination, at the same time advancing the development and commercialization of excellent pharmaceuticals and medical devices originating in Japan. In this way, while taking cost-effectiveness into consideration, the government will integrally advance infrastructure building, system reform and private investment promotion with an aim at establishing a new system in 2020, and also ensure that the medical care and nursing care that make citizens feel secure will have been permeated in 2025.

Moving forward, such health, medical care and nursing care services will be required in various countries around the world. The government aims at gaining global market and making an international contribution by promptly creating a problem-solving model for Japan that is facing challenges faster than other countries.

i) **Building a new health, medical care and nursing care system with a focus on health management, disease and long-term care prevention and independence support by utilizing technological innovation**

① **Establishment of Data-Using Base**

- The government will develop "National Health and Medical Information Network" as infrastructure for providing optimum health management, medical treatment and care from the viewpoint of individuals and patients. The said network is made up of a "health and medical record sharing service" that enables sharing of patient basic information, medical examination information, etc. with the medical institution upon an initial outpatient visit to such medical

institution under the consent of the patient and "medical information sharing service at the time of emergency" that allows utilization of basic information on the patient at the time of emergency, with an aim that the said network makes it possible for the patient to view such medical history information throughout his entire life through PHR (Personal Health Record) using his own terminal. Aiming at the full-fledged operation in 2020, the government will study specific system structures while beginning demonstration projects by the end of this fiscal year, and begin detailed designing next fiscal year or later.

- Of the "National Health and Medical Information Network", with respect to establishing a network of medical care and nursing care providers, the government will advance the sophistication of regional EHR (Electronic Health Record) through cloud computing, bi-directionalization, etc., at the same time conducting demonstrations regarding methods of wide area cooperation (security measures, etc.) and also methods of obtaining consents of the patient utilizing the My Number Card System, etc., by the end of this fiscal year. With respect to PHR, the government will construct a service model by next fiscal year to allow various kinds of utilization of not only EHR information, but also data owned by diverse entities such as insurers, etc., according to the person's life stage, incorporating private services. With the aim of establishing effective lifestyle disease prevention services by collecting daily health information using IoT devices such as wearable terminals, in particular, the government will begin more strict verifications on the effectiveness this fiscal year for a period of 3 years based on the previous verification results conducted until the last fiscal year. The government will also work on the creation and further sophistication of new health information utilization services conducted by private companies by developing AI algorithms that utilize health information gathered through such projects.
- In order to allow researchers, private companies, insurers, etc. to link and analyze health, medical care and nursing care big data as personal history, the government will develop a "Health Care Data Platform". The government will make it possible to analyze existing public databases such as NDB (National Data Base) of health insurance claims and specific health checkup information, long term care insurance comprehensive database of long-term care insurance information, DPC Database, etc. together with other databases on the said platform. Aiming at the full-fledged operation in fiscal year 2020, the government will study specific system structures while beginning demonstration projects by the end of this fiscal year, and begin detailed designing next fiscal year or later.
- The government will advance the utilization of medical information that has been processed to be anonymous personal information in the development and research by the medical field by utilizing accredited operators based on the Act on the Next-Generation Medical Infrastructure established in April this year. The above-mentioned "Health and Medical Data Platform" will provide all-in-one information based on public databases, while accredited business operators under the act will collect and provide data using any mechanism that meet various needs of research and development in the medical field including the treatment outcome information.
- The systems of online qualification check of medical insurance and medical IDs will be the basis that supports the above, which we aim at introducing. With an aim of launching a step-by-step operation next fiscal year and full-scale operation in 2020, we will surely start developing the systems this fiscal year.
- With regard to the initiatives to thoroughly digitize and standardize data in the fields of health,

medical care and nursing care, the government will accelerate studying of concrete measures including the scope of data to be standardized and approaches for standardization, to allow data utilization entities to smoothly share and make secondary use of data while taking the progress of technology into consideration so as to be in time for the full-scale operation of the data utilization infrastructure in FY 2020. After implementing such measures, the government will take necessary measures again, taking into account of the progress of technology thereafter.

② Strengthening of disease prevention and health promotion of individuals using data conducted by national insurance scheme operators and business operators

- The government will strengthen incentives for national insurance scheme operators to promote their initiatives to encourage subscribers' behavioral change toward disease prevention, health promotion, etc. Regarding the Health Insurance Cooperatives and the Mutual Aid Association, for the addition / subtraction system of the latter-stage elderly support fund, both the addition and the subtraction rates will be gradually increased beginning the next fiscal year and will be increased to 10% in FY 2020 at the highest, which is the statutory upper limit. Regarding the Japan Health Insurance Association, the incentive system will be fully implemented next fiscal year, which will be reflected in the prefectural unit premium rate in FY 2020. For the National Health Insurance System, the Insurer Effort Support System will be fully implemented next fiscal year. In respect of the indicators that are common to all the schemes, the government will evaluate diversified efforts that contribute to the optimization of medical expenses such as disease prevention and health promotion initiatives in a well-balanced manner by including implementation status of cancer examination and dental checkup, providing the patients with easy-to-understand information on the health check-up result making use of ICT and the like, in addition to the implementation rates of specified health checkup / specified health guidance. Further, in order to clarify the responsibilities of health insurance scheme operators, the government will start publishing the implementation rates of specified health checkups / specific health guidance beginning this fiscal year and strengthen the disclosure.
- In order to strengthen initiatives by health insurance scheme operators to exert their functions, the government will develop a joint implementation model and so on, to encourage reorganization of health businesses through centralization of insurer functions so as to promote the utilization of outsourcing and private businesses.
- The government will develop an environment so as to achieve Data Health effectively through a system capable of cross-sectionally managing information on subscribers who join a health insurance scheme such as the Health Insurance Association, Mutual Aid Association, Japan Health Insurance Association, National Health Insurance, etc., by integrating data owned by such national insurance operators so that even if a subscriber changes his national insurance scheme to another scheme, his data will be transferred to the new national insurance operator and the Data Health will be conducted effectively.
- The government will conduct concrete verification of models in which public health nurses in local governments analyze data, including data on medical examination, health insurance claim, etc. using AI, and formulate health guidance measures so that they could perform Data Health efficiently.
- The government will strengthen the Data Health conducted by national insurance scheme

operators and promote collaboration between corporate health (collaboration health). To achieve this, the Ministry of Health, Labour, and Welfare and the Nippon Kenko Kaigi will work together and assess the statuses including subscribers' health condition, medical expenses, investment for maintaining health, etc. and notify such results to the business operators beginning next year. Similar measures will be developed by other health insurance scheme operators, including the Mutual Aid Association so that business operators could objectively understand the situation of their health insurance scheme in comparison with the situation of the whole country before engaging in health improvement in cooperation with the health insurance scheme organization.

- The government will work on the improvement of the quality and further dissemination of health and productivity management by expanding accreditation of the Health and Productivity Stock Selection and the Certified Health and the Productivity Management Organization, at the same time reviewing necessary evaluation items taking into account of the reform of working method, etc.

③ **Medical caremaking use of ICT such as remote medical care, AI and the like, and genome information, etc.**

- The government will evaluate remote medical treatment at the next medical service fee revision, for example, those contribute to the provision of effective and efficient medical care by properly combining face-to-face medical treatment and remote medical treatment, including the effective guidance and management to lifestyle diseases patients such as diabetes combined with on-line consultation, early prevention of aggravation utilizing remote monitoring of blood pressure, blood glucose level, etc. Further, the government will accumulate knowledge on the effectiveness, safety, etc., which will also be reflected in the revisions made after FY 2020. As for remote medicine administration guidance, the government will study it based on the demonstration and the like conducted in the National Special Strategy Zone.
- In order to strategically promote development of AI such as deep learning and machine learning in the field of healthcare, we have designated the following 6 areas to focus on promotion of development and practical application: diagnostic imaging support, development of drugs, support on operations, genomic medicine, support on medical care and treatment, and nursing care/dementia. The government will establish a mechanism for developing and certifying cloud environments for AI development, at the same time developing rules on evaluation methods to ensure the quality and safety of medical equipment utilizing AI aiming for practical application. Based on these, we aim at evaluating, at the time of amendment of medical treatment fee that follows, the improvement of the quality of medical treatment and the like through appropriate support using AI to the medical treatment of doctors.
- The government will develop a genomic medical provision framework in the areas of cancer, intractable diseases and rare diseases. Regarding cancer, the government will develop AI infrastructure to aggregate and analyze information on genome mutation and therapeutic effects, etc., and also develop a framework for nationwide support (building a consortium) so that medical stakeholders and the like could conduct treatment making use of AI and information technology. In addition, the government will conduct measures, that include the expansion of the scope of pharmaceuticals through conditional early approval, at the same time permitting

insurance coverage of pharmaceuticals after verifying the effectiveness, safety, etc. of such pharmaceuticals, etc. so that each patient could receive the most advanced cancer treatment best suited for each person covered by public medical insurance. Furthermore, the government will advance the development of innovative treatment methods using whole genome analysis or immunological related tests, minimally invasive diagnostic technology and ultra-early diagnosis technology using liquid biopsy etc. Regarding intractable diseases, the government will advance the development of a framework for centrally managing research data, such as genome analysis information and clinical information, achieving early diagnosis and promoting drug discovery.

- The government will study medical modules required in disaster affected areas, taking an opportunity of medical activity drills prior to constructing a framework for transporting severely ill patients to the outside of the disaster area for treatment, otherwise it had been difficult to provide proper treatment in the event of a disaster.

④ Realization of scientific care for the independence support and prevention of aggravation

- At the next amendment of care payment , we will evaluate the effective self-support.
- The government will build a database to collect and analyze necessary data to clarify what kind of support is given to what kind of condition for achieving independence, aiming at the realization of nursing care in which the effect of the independence support is scientifically supported. The government will prepare a data collection format, such as care classification method during this fiscal year, start building a database in the next fiscal year, launch trial operation in FY 2019, aim for the full-scale operation in FY 2020.
- With respect to the nursing care services the scientific effect of which is supported by analyzing data, we will evaluate them at the time of amendment of care payment in or after FY 2021. Further, we will publish on the website of the Ministry of Health, Labour, and Welfare the companies which offer such services, so that the services will be “visualized” to the citizens.

⑤ Improvement of the quality and productivity of nursing care by utilizing technologies such as robots and sensors

- The government will steadily advance the demonstrations of the effectiveness of utilization of robots, sensors and the like at nursing care sites, then based on the demonstration results, take measures in the aspect of institution such as reviewing care payment, personnel/equipment criteria, and other matters in respect of the robots and sensors that are found to contribute to the maintenance and improvement of the quality of living of users and also the reduction of the burden on caregivers at the time of the care payment revision for the next term.
- In our future development of nursing care robots, our goals are to maintain and improve the quality of life of users through self-support and at the same time to reduce burden of caretakers. We will thus newly cultivate and assign project coordinators who can truly pick up the on-site needs, turn them into development seeds and lead the projects. Also, We will re-examine the development fields to be focused on for the robot nursing care equipment, decide the direction of our strategic development by this summer, and reflect it to the development support goal for the next fiscal year and on. The government also support in the evaluation and test data

acquisition for advancing coordination between ISO13482, which is the standard concerning the safety of the day-to-day living support robots and the overseas systems, so as to smoothly develop an overseas robot nursing equipment market.

- In order to reduce the burden on nursing staff, the government will work towards halving the amount of documents required by the administration and strengthen initiatives for the dissemination of ICT in nursing care records. In addition, the government will comprehensively work on the securing of diversified nursing care workers, including steady implementation of initiatives for the improvement of treatment of such workers, and utilization of loan programs with exemption from repayment. The government will also provide support in creating care plans using AI, including organizing issues of practical application.

ii) Promotion of initiatives to maintain and promote health in collaboration with industry, academia and government

- In order to realize a "lifelong active society" where people can continue to live as who they really are, even at an old age, the government will create a place, role and work for the elderly, prevent the situations that cause people to require care and also prevent the progress thereof through a collected effort of various actors including medical and nursing-related persons, universities, private enterprises, local governments and other entities. For example, the government will implement a demonstration project on "Homes with jobs for the elderly" (tentative name) etc. and work on the development of a model case that is found effective in medically and scientifically aiming for the prevention of dementia and situations in need of care and control the progress of thereof.
- In order to reevaluate the correlation between the aging process and age, the government will organize the knowledge and data accumulated so far, categorize deterioration of living functions and cognitive functions in accordance with the level of aging, which will be used for the support for prevention, treatment, social participation, etc.
- To utilize the vitality of private companies in solving social issues, the government will expand social impact investment efforts, such as the social impact bonds that invoke private funds and implement pay-per-performance based outsourcing projects in the health and welfare areas. For this purpose, the government will develop an environment, which include setting of evaluation indicators through the implementation of model projects and provide support to local government in their formation of projects. Also, the government will verify and organize the issues and activities of each administrative agency, financial institution and business operator based on the past cases.

iii) Development and commercialization of outstanding pharmaceuticals and medical devices originating in Japan

- Based on the "Health / Medical Strategy" (Cabinet decision on July 22, 2014, Partly revised on February 17, 2017) and the like, the government will advance research and development aiming at the creation of innovative pharmaceuticals and medical devices originating in Japan by conducting seamless research management and support from basic research through practical application in an integral manner at the Japan Agency for Medical Research and Development (AMED).

- The government will advance the creation of innovative pharmaceuticals and products related to regenerative medicine that achieve both prolonging of healthy life expectancy/improving patient QOL and generating medical economic value. Specifically, in addition to developing drug discovery technology, making use of state-of-the-art biotechnology, AI technology and other technologies, the government will form a national consortium to promote the development of methods of evaluation of the safety of potential drugs that use regenerative medicine technology and the practical application of regenerative medicine, and advance medical applications through integration of regenerative medicine and rehabilitation technology. In this way, the government will build a highly competitive medical industry by supporting practical application of Japan's excellent technological seeds.
- The government will also advance the research and development of biomarkers and risk markers that allow symptoms of lifestyle diseases and dementia to be detected, at the same time verifying the usefulness of the biomarkers developed. The government will also advance the research and development of pharmaceuticals and other items that are expected to be utilized for the prevention of lifestyle diseases and dementia.
- In order to support the development of innovative medical devices and systems that incorporate technological innovation such as ICT through entries of different industries, the government will develop an environment for supporting the development, such as enhancement of a medical equipment development support network, collaboration with clinical sites and related academic societies. The government will also propose methods of evaluating innovative medical equipment and products related to regenerative medicine, etc., ahead of the rest of the world aiming at gaining international standards.
- The government will conduct research aiming for the practical application of high definition video technology such as 8K to endoscopes and diagnostic support systems.
- The government will develop an environment for efficient clinical development through the establishment of "Clinical Innovation Network" where networking of the disease registration systems and other systems developed by the National Center for Advanced Medical Research Center (NC), academic societies and other organizations is implemented, and also an environment to improve the sophistication of evaluation of pharmaceuticals and the safety measures through the development of PMDA's Medical Information Database System (MID-NET).
- In order to expedite the practical application of innovative pharmaceuticals, the government will examine a conditional early approval system, taking into account of the utilization of real world data and the like.
- The government will enhance comprehensive support such as securing human resources equipped with the expertise on pharmaceutical regulatory affairs, intellectual property and other matters in order to develop an environment where medical venture businesses are easy to start up.

iv) Gaining global market share and international contribution

- In respect of outbound promotion, of the initiatives for international expansion of medical care and nursing care, the government will provide support to Japan-based medical institutions in their expansion into overseas while utilizing Medical Excellence Japan (MEJ), the Japan External Trade Organization (JETRO) and other organizations, also support for the effective

medical and nursing care services in each country in which human resource development and institutional development are combined as a package, support for the development of sales channels and the formation of projects for medical equipment and pharmaceuticals, etc., support for the development of medical equipment aiming at solving health and medical problems of partner countries based on the needs of developing countries etc. The government will also advance the establishment and enhancement of a maintenance framework of medical device manufacturers overseas.

- In respect of the promotion of medical inbound tourism, the government will accelerate the development of 100 "Medical institutions where a framework of the provision of medical services to foreign patients has been developed" that covers check-in process by the end of this fiscal year from original target of year 2020, through the support in assigning medical interpreters, so that visiting foreigners and foreign residents could visit medical institutions in Japan feeling safe and secure. In addition to the development of such core medical institutions, the government will work on the expansion of the foundation of the foreign patient acceptance framework taking into consideration of the regional situations aiming for the further enhancement of the acceptance environment. In addition, as part of the "Reform 2020" project, the government will continue developing necessary environments, including the quality improvement of coordinators who assist foreigners in their smooth visits to Japan and medical consultation and the development of overseas liaison offices while improving the awareness of Japan International Hospitals (JIH) among foreign countries, that was announced on January 31 this year.
- Based on the "Basic Policy for Asia Health and Human Well-Being Initiative" (Decision of Headquarters for Health Care Policy on July 29, 2016), the government will introduce Japan's knowledge and experiences of various policies and measures targeting the elderly cultivated by our country such as disease prevention, rehabilitation, independence support, etc., in accordance with the actual situation and needs of Asian countries, aiming at establishing a new UHC (Universal Health Coverage) model suitable for Asia. The government will provide support to private enterprises in their business expansion into Asian countries, and also advance the development and circulation of highly skilled nursing human resources in Asia by promoting Japanese language education infrastructure improvement for nursing care personnel and strengthening cooperation with the home countries of foreign human resources.

Based on the "Basic Plan for Strengthening International Threatening Infectious Disease Control Measures" (February 9, 2016, decision of ministerial conference on International Threatening Infectious Disease Control Measures), etc., the government will advance international collaboration related to the provision of Japan's pharmaceuticals to developing countries in a collected effort of government and private enterprises, strengthening research capabilities and functions through the formation of infectious disease research bases with Nagasaki University's highly safe test facility as a core, and the expansion and enhancement of designated medical institutions. The government will provide assistance to international health organizations such as the World Health Organization (WHO) and the "the Global Fund to fight AIDS, Tuberculosis and Malaria ", the Global Health Innovative Technology Fund (GHIT Fund) that promotes the development and dissemination of necessary medicines in developing countries, and also in the international vaccine development initiatives, at the same time promoting measures against Antimicrobial resistance (AMR), which has become an important

international challenge. In addition, the government will strengthen training of human resources and dispatch of personnel to international organizations in order to demonstrate Japan's presence in the international health field.

2. Further sophistication of mobility services, elimination of "Mobility vulnerable people", realization of logistics revolution

(1) Main progress status of KPI

《KPI》 In 2020, Automatic braking on more than 90% of brand-new passenger cars sold in Japan

=> Brand-new passenger cars sold in Japan with automatic braking: 45.4% (in 2015)

* KPI that we will freshly set up this time

《KPI》 In 2020, Driving assistance device/system on 20% of domestic vehicles (stock base), gaining 30% of the world market share

=> Domestic vehicles with driving assistance system: 6.5% (in 2015)

Alternative value of world market share: 40.5% (in 2014)

《KPI》 In 2030, Driving assistance device/system originally mounted on all brand-new cars sold in Japan, and even in stock base, it permeates almost all cars

=> Brand-new cars sold in Japan with automatic braking: 42.2% (in 2015)

Domestic vehicle : 6.5% (in 2015)

(2) Specific measures to be newly taken

Regarding the movement of people and goods, Japan is facing declining population on a full scale and the production age population is expected to decline. Amid the situation, sustaining regional public transportation network, addressing the labor shortage of the logistics field that has become increasingly serious, reducing traffic accidents and other issues are urgent challenges that Japan must work on. In order to strengthen the industrial competitiveness while addressing these social issues, the government will strongly advance initiatives, including institutional development, technology development, demonstration environment development, and others with clear deadlines thereof, while visualizing a specific business model, aiming at realizing mobility services utilizing unmanned automated driving technology ahead of the rest of the world and incorporate such services into society.

As a basic approach to incorporating such services into society, the government aims at the world's most advanced automated driving system in terms of both tangible and intangible, namely "technology" and "commercialization", however, in the meantime, the government will begin incorporating the automated driving system from time to time into society by taking advantage of the latest technology at the time while complementing with the institutions and infrastructure without waiting for the technology to be completely established. Initially, the government will begin with a relatively simple location, such as a private space or a mountainous area, and then expand to a complex location, such as an urban public road while accumulating concrete examples so that a safe and secure practical application can be attained while increasing the level of technology and social acceptability.

To do so, first of all, the government will advance the development of the necessary institutions and infrastructure by clarifying the deadlines so that a new stage of public road demonstration of unmanned remote driving or platooning of trucks could be smoothly and promptly conducted while visualizing more concrete business models, based on the implementation plan summarized at the Future Investment Conference in February this year. In doing so, the government will advance the development of necessary institutions under the collaboration framework where public and private entities actively engage in dialogue and work together while firmly sharing the demonstration results and data among stakeholders. Also, in order to create a market and introduce services of advanced automated driving in the future, it is necessary to review the existing traffic related laws and regulations that are established on the premise of "driving by drivers". For the reason, the government will advance a full-fledged study of institutional development and so on, aiming for the commercialization of advanced automated driving around 2020, with an eye to international institutional competition. Furthermore, in order to accelerate the technology development, such as reinforcement of the recognition and judgment technology, which is the core technology of automated driving, the government will deepen and expand the scope of the cooperation areas where business operators strategically work on, such as creating a real data platform, while promoting the sharing and utilization of data. • The government will work for the realization thereof in a collected effort from government and private sectors as a national strategy while working on the strengthening of the government's commander tower function. In order to advance the development of an environment for institutions and infrastructure and the research and development in a comprehensive and systematic manner, the "Public-Private ITS Concept/Road Map 2017" (May 30, 2017, Decision of IT Comprehensive Strategy Headquarters, Public-Private Data Utilization Promotion Strategy Meeting) needs to be advanced by the entire government.

In addition to autonomous driving on land, the government will also actively work on automation in air routes and sea routes aiming for the improvement of logistics efficiency and sophistication of mobility services. To do so, the government will expand the industrial use of unmanned aerial vehicles (Drones) for package delivery and other purposes, and also take initiatives to advance the sophistication of maritime traffic through research and development or development of standards and rules, also to incorporate "automated ship operation" into society.

i) Smooth and prompt promotion of demonstration projects

- We aim to commercialize truck driving in convoy on freeways in 2022 at the earliest. In order to realize unmanned convoy driving for vehicles that follow on freeway (Shin-tomei) in 2020, we will launch experiments of manned-following-vehicle system during this fiscal year and unmanned-following-vehicle system next fiscal year on public roads. During this fiscal year, the government will study matters related to the distance between vehicles to ensure the safety aiming at a public road demonstration, and determine specific driving locations and driving methods to develop a driving plan. In addition, taking into consideration of the test situation of articulated trucks, the government will study business environments in the aspect of infrastructure and the like according to the technology used for platooning, the results of demonstrations, operational rules and so on.
- Aiming at the realization of a mobility service by unmanned automated driving in 2020, the government will conduct regional public road demonstrations (including those by remote

operation) at 10 or more locations nationwide, such as michi-no-eki (Roadside stations). To do this, the government will develop necessary institutions, including setting of requirement for dedicated space and determining of concrete driving methods during this fiscal year.

- With an eye to the Tokyo Olympic Games and the Paralympic Games to be held in 2020, which the government intend to use to showcase and disseminate the Japan's state-of-the-art automated driving technology both to Japan and the world, and also make it a legacy, the government will conduct state-of-the-art demonstrations for remote operation or completely automated driving by utilizing the National Strategy Special Zone, etc., such as the Haneda Airport and coastal areas. The government will develop necessary institutions and infrastructure by 2019 so that a demonstration aiming at commercialization becomes possible.
- In order to advance such demonstration safely, smoothly, and promptly, the government will advance the utilization of the national strategic special zones at the same time studying and utilizing mechanism of the "Sandbox" system, which is a regulation to fundamentally review relevant preliminary regulations and procedures in the special zones, while working closely with related local governments and other organizations. (For details, see "II-B-5 Bold Regulatory Reform by the National automated drive Special Zone".)
- The government will advance process management of demonstration projects based on the needs of private enterprises, sharing of demonstration results and data and the development of necessary institutions under the framework of public and private partnership where public and private people actively interact and cooperate while sharing the results and data of demonstration conducted in various driving environments. By the end of the year, we will establish systems for the sharing and collection of information. This includes indexing of complexity of driving environment and clarification of experiment data that needs to be collected in common.

ii) Acceleration of the development of institutions aiming at realizing advanced automated driving

- Regarding the review of traffic related laws and regulations that are necessary for the advancement of marketing and creation of services of advanced automated driving in the future, the government will accelerate discussions related to institutional development with an anticipation of international institutional competition and discussions related to international treaties aiming at achieving the marketing and servitization of advanced automated driving (Level 3 or higher) that includes complete automated driving by around 2020, and summarize the policy (outline) of institutional development relevant to the entire government during this fiscal year.

iii) Advancement of technology development and deepening/ expansion of collaboration areas

① Strategic utilization of driving video data, accident data and other data

- In order to drastically strengthen the competitiveness of the recognition and judgment technology, which holds the key to the success of automated driving, the government will accelerate the research and development, and compile the basic policy on strategic collection and utilization of driving video data, accident data, etc., which help accelerate the development

of the technology during this fiscal year, from the viewpoint of advancing the development and utilization of high-quality data associated with safety evaluation.

② Practical application of automated driving maps, etc.

- In respect of automated driving maps, the government will unify the specifications beyond the boundaries of companies and advance the development of map-related data by public-private cooperation. In respect of highway maps, the government will advance international collaboration with a view of overseas expansion, aiming at practical application next fiscal year. Regarding general road maps, the government will decide a development policy next fiscal year.
- The government will study specifications, mechanisms and methods of utilizing probe information for dynamic maps, which use automated driving maps as its foundation on which information that changes in real time is linked, then, compile them next fiscal year.

③ Realization and utilization of the 5th Generation Mobile Communication System (5G)

- The government will advance the initiatives aiming at launching services of the 5th Generation Mobile Communication System (5G) by 2020, which enables ultra-high speed, multiple connections, and ultra-low latency, as part of initiatives to develop information communication infrastructure that contributes to incorporating automated driving and other technologies into society. (For details, see "II-A-1. Construction of data utilization infrastructure" herein below.)

④ Securing of in-vehicle security

- In respect of in-vehicle security that ensures the safety of automated driving, such as measures against cyber-attacks posed from the outside of the vehicle, the government will compile a process chart for promoting internationally common development processes and safety evaluation mechanism during this fiscal year, at the same time accelerating public and private partnership efforts including human resource development.

⑤ Training of human resources specialized in software

- In order to secure human resources specialized in software necessary for the development of automated driving, the government will develop a framework of human resource development to foster personnel who is familiar with simulations and development of innovative automotive software by the end of this fiscal year while summarizing competencies necessary for the development.

⑥ Promotion of popularization of safe driving support vehicles

- In consideration of urgent issues such as taking measures against traffic accidents by elderly drivers, the government will study about the expansion and enhancement of the evaluation of the safety performance of automobiles and the development of standards for advanced safety technology, at the same time promoting the spread of automobiles equipped with advanced safety technology.

iv) Development of an environment for the expansion of industrial use of small unmanned aerial vehicles (drone) and the like

- In respect of small unmanned aerial vehicles, the government will implement baggage delivery next year in areas such as mountainous areas where such needs are expected to be generated. The government will also advance the development of technology and institutions that enable advanced flights such as BVLOS (Beyond Visual Line of Sight) Flight that doesn't require assistants and flights over third parties aiming at implementing baggage delivery on a full scale in highly populated cities in the 2020s. Through the utilization of the demonstration field located in the Fukushima Hama-Street area, the government will formulate performance evaluation criteria of aircrafts, and advance the development of flight management systems, collision avoidance technology and the like that enable simultaneous flights of multiple aircrafts, and also advance the international standardization. The government will also conduct research and study with regard to the use of radio waves for the realization of BVLOS (Beyond Visual Line of Sight) flights, taking into consideration of the progress of the flight rules and technology development of small unmanned aircraft. In addition, the government will clarify the requirements of the aircraft and pilots, etc., concerning BVLOS (Beyond Visual Line of Sight) Flight that doesn't require assistants by the end of this fiscal year, revise the examination guidelines for permits and approvals based on the Civil Aeronautics Act early next year, and consider streamlining of the application procedure by utilizing the Council that is working on the formation of agreements with stakeholders and the formulation of safety measures. In this way, through the utilization of robot technology such as small unmanned aerial vehicles, the government will expand industrial applications for improving logistical efficiency and so on.

v) Sophistication of marine logistics by incorporating automated cargo vessels into society

- Aiming for the practical application of "automated cargo vessels" by 2025, the government will work on aiming to reach an agreement on international standards concerning ship's equipment and operation, etc. by the end of FY 2023 and also improve domestic standards. For these reasons, as elemental technologies that form the basis of the above-mentioned standards, the government will formulate international standards relating to data transmission of inboard equipment and the like at the initiative of Japan next fiscal year, and also aim at introducing approximately 250 advanced vessels that utilize state-of-the-art data transmission technology to improve the operation efficiency by 2025 based on the revised Marine Transportation Act.

3. Realization of the world's first smart supply chain

(1) Main progress status of KPI

《KPI》 More than 2% annual improvement in labor productivity of manufacturing industry

=>The average growth rate for the most recent 3 years (2013 - 2015): 1.4%

《KPI》 80% of companies collect data at their factories and other establishments by 2020, 40% of companies link the collected data to solving concrete management issues

=>In 2016: 67% and 20% respectively

* KPI that we will freshly set up this time

(2) Specific measures to be newly taken

With the advent of a population declining society, Japan has structural problems in both supply and demand. Under these circumstances, the source of added value is shifting from "things" to "services" and "solutions" at an accelerated speed. The government must make this situation a great opportunity to connect diverse needs of consumers and customers to the blooming of potential demand, and dramatically increase the productivity of the sites.

In the 4th Industrial Revolution, the vision of Japan's industry is to materialize "Connected Industries", that is, an industrial society in which various things are networked by IoT and the like and new value added is created that contribute to solving problems of customers and the society while taking advantage of Japan's strengths as much as possible, such as flexible problem-solving capability supported by a high level of technological capability and on-site knowledge. The technological innovation of the 4th Industrial Revolution will make it possible to obtain and utilize data of all stages of development, manufacturing, sales and consumption in real time. The government will aim for the realization of creation of innovative products and services that meet the needs of individual customers, an optimized supply chain without waste through data coordination, and a safe and highly productive manufacturing process.

While Japan has the potential to acquire and utilize abundant data due to the worldwide high market share of individual equipment and final products of manufacturing industry. On the other hand, the current situation is that inter-equipment and intra-company data coordination among large companies has slowly progressed, but data coordination beyond the boundaries of factories and companies has not been initiated yet. Inter-equipment and inter-company data coordination has not been progressed among many SMEs. In order to connect such potential capabilities to the competitive strength, the government will accelerate the data coordination throughout the supply chain beyond the boundaries of factories and companies, at the same time advancing the separation of competitive and cooperative areas in respect of data, then develop a platform for real data in the cooperative areas.

Therefore, the government will make the following efforts to create advanced exemplary cases of data coordination beyond the boundaries of companies, to achieve international standardization thereof and also to develop institutions and rules to advance the data coordination and utilization.

i) Creation of advanced exemplary cases and international standardization of data coordination

- The government will advance the creation and dissemination of advanced exemplary cases of data coordination such as order placing and receiving, designing, production, logistics, sales, consumption and maintenance, etc., beyond the boundaries of companies, including SMEs. For this reason, the government will begin international demonstrations across domestic and overseas companies on the supply chain this fiscal year, in addition to domestic demonstrations. The government will formulate a uniform data description format (data profile) based on these outcomes by the end of this fiscal year, which will be connected to proposals of international standards by 2020.
- The government will provide expert support for IT and robot introduction to more than 10,000 companies by the end of this fiscal year, aiming at the creation of new services and added value using data from SMB and SME in manufacturing industry. The government will also encourage initiatives to develop bases that allow businesses to receive consultation from the "Smart Manufacturing Support Team", which provides consultation on the improvement of manufacturing sites and also provide assistance in the utilization and introduction of IoT/robots, with an aim at setting up such bases at about 40 locations nationwide within two years. In addition, the government will promote measures to strengthen training in its effort to double the number of "system integrator" that proposes and supports SMEs in their robot introduction to 30,000 by 2020.
- The government will advance the sophistication of the integrative process ("suriawase" in Japanese), which is strength of Japan, throughout the supply chain by utilizing digital technology. First, the government will aim at the establishment of a simulation model for vehicle performance evaluation in the automotive field in a collected effort from industry-academia.
- In order to promote the acquisition of digital skills by manufacturing human resources that support the realization of Smart Supply Chain, the government will formulate a practical curriculum during the current fiscal year. In doing so, the government will also collaborate with industry and academia in Germany, which shares the strengths in manufacturing with Japan, based on the "Hannover Declaration", which was concluded in March this year.
- In order to strengthen the excavation and fostering of advanced IoT businesses and other businesses through the "IoT Promotion Consortium", the government will advance international collaborations such as cooperation with overseas IoT promotion organizations and support for matching with overseas companies, and also advance support in the creation of concrete projects in regions that were chosen as "Local IoT Promotion Laboratory". For the creation of further advanced projects, the government will study ideas of selecting projects with a focus on the problem-solving by having competitions, and holding data analysis competitions utilizing real industrial data owned by important infrastructure companies and other entities during this fiscal year, then implements concrete measures.

ii) Institutions and rules that help advance data coordination and utilization

- In order to encourage data coordination and utilization beyond the boundaries of companies, the government will promote the utilization of agreement guidelines and the like concerning the authority of use of data that was formulated in May this year, and also advance the clarification and sharing of the data use authority through proper conclusion of agreements between

companies. In addition, the government will organize items to be noted by each field through dialogues with the industry world, etc., by the end of this fiscal year, so as to advance the development thereof into individual industrial fields, revise the guidelines and take additional measures as necessary, also advance international discussions on how to set the authority for data utilization, etc.

- In order to develop an environment where data can be exchanged with confidence and appropriate considerations for data creation, collection, analysis, management, etc. can be obtained corresponding to the cost invested in the development, etc., the government will study measures also taking into consideration of a revision to the Unfair Competition Prevention Act to include prohibition of fraudulent acquisition of data, etc.
- In order to promote the coordination and utilization of data using IoT related equipment among multiple businesses on the supply chain, the government will consider reviewing necessary institutions during this fiscal year, with an aim at positioning the "Collaborative Energy Conservation" that enables proper evaluation of energy saving achieved in collaboration among multiple business operators, not by each operator, as a new energy conservation method.
- In order to grant regulatory incentives to business operators that are engaged in advanced industrial safety such as constant monitoring of facilities by utilizing IoT and data, the government will disseminate the "Super Accredited Enterprise System" under the High Pressure Gas Safety Act, which has launched recently, among the industrial safety sector, and consider expansion thereof to sectors where the safety making full use of IoT needs to be promoted, taking consideration of conducting demonstrations, etc.
- In order to promptly introduce the latest IoT-related equipment necessary for data collection and utilization at manufacturing sites, it is necessary to promptly incorporate international standards on safety regulations into the domestic regulations when such equipment is used at manufacturing sites. For this reason, first of all, the government will incorporate the latest international standards in the explosion-proof regulations based on the Industrial Safety and Health Act, during this fiscal year and study a framework that can quickly cope with a revision to the international standards later on.

4. Improvement of infrastructure productivity and urban competitiveness

(1) Main progress status of KPI

《KPI》 Improvement of the productivity of construction sites by 20% by FY 2025.

* KPI that we will freshly set up this time

《KPI》 Tokyo will rank the third place in the city overall strength rankings by 2020.

=> In 2016: 3rd place (In 2012: 4th place)

(2) Specific measures to be newly taken

In order to strengthen the international competitiveness of Japan and promote economic growth, the government will strengthen the function of the industrial infrastructure, through the rapid development and utilization of arterial high-standard highways, high-speed transportation networks that include new bullet trains, linear Chuo Shinkansen lines, international hub airports, international containers and bulk strategic ports and other facilities, at the same time advancing the initiatives of strategic infrastructure management with a slogan "Investing and using wisely" and Compact City Plus Network, and also advance the initiatives that can bring out the stock effect of infrastructure maximally, such as productivity improvement and evocation of private investment. Together, the following measures will be taken:

i) Improve productivity of development and maintenance of infrastructure

- In respect of i-Construction which promotes the utilization of ICT in the entire construction process from research, survey, design, construction, inspection, maintenance to updating, the government will expand the scope of i-Construction to all processes including maintenance and all the project categories except earthwork and pavement work such as bridges, tunnels and dam constructions by 2019, based on the roadmap compiled at the end of the last fiscal year at the i-Construction Promotion Consortium Planning Committee, which consists of industry, government and academia. The government will also provide support for the ICT introduction by implementing courses and training, with an aim at expanding the scope of application to SMEs and local governments. Furthermore, taking into consideration of the formulation of a data utilization policy and standardization of data format to be completed by this summer, the government will develop concrete utilization rules so that open data can be realized by 2019. Through these measures, the government aims to improve the productivity in the construction sites by 20% by FY 2025.
- The government will formulate evaluation standards, test methods and the like for infrastructure inspection and disaster response robots during the current fiscal year aiming to achieve further sophistication and efficiency of infrastructure inspection and disaster response. The government will also formulate the "Robot version inspection procedures", in which the robot utilization procedures are prescribed; those for underwater robots by the end of the current fiscal year, and those for other areas such as bridge and tunnel constructions, sequentially. In order to advance the development by presenting development targets, the government will set and announce the required performance depending on the scene, in which a robot is used, beginning this fiscal year. In addition, the government will work in collaboration with infrastructure managers to

advance assistance in the development of advanced technologies such as robots, AI and the like.
[Mentioned repeatedly]

ii) Strengthening of industrial infrastructure functions by improving productivity

The government will advance the following initiatives to realize productivity revolution, for example, improving labor productivity of logistics companies by about 20% by 2020;

- The government will improve the global share of ship construction of Japan by approximately 10% by 2025 (20% →30%), by promoting "i-Shipping", which incorporates ICT into all phases from the development, construction to operation of a ship so as to improve the competitiveness of shipbuilding and shipping. Especially, by the end of FY 2023, we aim to reach an agreement on the international standards concerning vessel facilities and operation, and establish standards in Japan, especially toward practical application of "automated ship operation" by 2025. For these reasons, as elemental technologies that form the basis of the above-mentioned standards, the government will formulate international standards relating to data transmission of inboard equipment and the like at the initiative of Japan next fiscal year, and also aim at introducing approximately 250 advanced vessels that utilize state-of-the-art data transmission technology to improve the operation efficiency by 2025 based on the revised Marine Transportation Act.
- In order to improve the transportation efficiency and productivity of domestic coastal shipping, which accounts for 80% of the domestic industrial basic materials transportation, a registration system of vessel management companies will be established by the Minister of Land, Infrastructure, Transport and Tourism during the current fiscal year to allow such vessel management companies with technology and reliability to collectively carry out management operations that include the operation and maintenance of individual vessels, employment of seafarers on behalf of the micro, small and medium-sized enterprises that make up the majority of business operators in the area, with an aim that the management by such vessel companies will spread to 10% of the coastal shipping by 2025.
- The government will conduct institutional reform for the remote operation of cargo handling equipment this fiscal year, at the same time advancing the efficiency of port logistics as a whole by also utilizing AI and IoT and the like.
- The government will aim to achieve international standardization of the world's most advanced LNG fuel supply technology of Japan by next fiscal year, while coping with the tightening of exhaust emission regulations on vessels that will take effect in 2020, in order to improve the operational efficiency by supplying fuel while handling cargoes.

In order to advance the international standardization of cold chain logistics services such as refrigerated delivery services where Japan has a competitive advantage, the government will, firstly, formulate guidelines in collaboration with the 10 ASEAN countries by the next fiscal year.

- In respect of small unmanned aerial vehicles, the government will implement baggage delivery next year in areas such as mountainous areas where such needs are expected to be generated. The government will also advance the development of technology and institutions that enable advanced flights such as BVLOS (Beyond Visual Line of Sight) Flight that doesn't require assistants and flights over third parties aiming at implementing baggage delivery on a full scale in highly populated cities in the 2020s. [Repeat]

- In order to maximize the stock effect of the road network, realize quick and smooth logistics, and alleviate traffic jams, the government will advance the development of the 3 metropolitan area ring roads including, primarily, the metropolitan area 3 ring roads, at the same time introducing a new fee structure emphasizing the use and implementing countermeasures against pinpoint congestion utilizing big data such as ETC 2.0.
- In order to advance the utilization of the system where the ramps are improved that directly connect expressways and private facilities such as large-scale logistic bases, industrial parks and commercial facilities located in the vicinity of the expressways by way of suggestions and cost-bearing of private businesses, the government will promptly establish specific rules.
- The government will promptly compile new comprehensive logistic policy guidelines that will serve as a guideline for future logistics measures and logistics administration, and also advance the comprehensive and integrated efforts through the collaboration across the related ministries and agencies.

iii) Improvement of urban competitiveness by evocation of private investment, etc.

- In respect of urban redevelopment emergency development areas, in order to designate only areas where effective private investment is expected to be realized through a prompt announcement of candidate areas, strengthening of private investment proposals by utilizing information infrastructure, revision of the designation criteria that clarify social issues to be solved, etc., the government will revise the "Urban Renewal Basic Policy" (July 19, 2002, Decision of the Cabinet) targeting by next summer.
- The government will review the institutions during this fiscal year to focus on the advancement of urban development, aiming at a flexible urban realignment according to the regional circumstances such as effective utilization of vacant lots including those of public real estate and appropriate placement of parking lots for each area.
- In order to enable sustainable development and updating of facilities in urban parks and increase the attractiveness and utilization thereof, the government will aim at the realization of approximately 100 revenue-generating facilities in the next 5 years, such as restaurants that are to be installed and managed by private actors on a long term basis, and the revenue generated can be used for the maintenance of the open space or other facilities of such urban park.
- Aiming at doubling the total assets of REIT or the like to about 30 trillion yen by about 2020, from the viewpoint of promoting investment for conversion to and supply of real estate of high growth potential, the government will develop and disclose information on real estate that is superior in perspicuity and practicality, that are necessary for improving the convenience and reliability of investors so that they could make appropriate assessment of real estate of excellent quality in term of environmental and comfort, establish a new certification system, and review the real estate appraisal system by the end of this fiscal year
- Our goal is to resolve social challenges of local communities by promoting the use of data possessed by local governments. We will achieve this by making things open in the fields focused in the government-private strategic meetings on promotion of data use and government-private round tables as well as taking advantages of a business proposal system based on the Act on Promotion of Future Investment on Communities [Repeat].
- In respect of land that is difficult to identify its owner, in order to allow proper utilization and management in accordance with the regional situation, the government will clarify the consent

requirements regarding the management of common lands, develop a new mechanism that allows a wide range of publicly-oriented utilization that meets the regional needs with the involvement of public institutions, and study measures to eliminate the land, the inheritance registration for which has not been done for a long time in a collected effort from the relevant ministries and agencies to submit necessary bills to the next ordinary Diet session. With an eye to the future where the number of land which is difficult to identify its owner will increase along with a decrease in population, the government will promptly study measures for the medium-to-long term issues concerning the registration system and the land ownership right at the relevant councils, etc.

- In order to promote the distribution and utilization of empty houses and vacant lots by public-private cooperation, the government will boost the efforts of local government and real estate related organizations, etc., and provide support for the utilization, management and retirement of empty houses, etc. and also develop a nationwide vacant house/ empty land bank. The government will also enhance the real estate infrastructure by enhancing the index, etc., developing cadastres and registry maps. Further, the government will expand the scope of use of the statutory inheritance information certification system at the same time advancing further efforts in term of both institution and structure to promote the collection, maintenance and utilization of owner information.

5. Advancement of FinTech, etc.

(1) Main progress status of KPI

《KPI》 Introduction of open API in at least about 80 banks within the next 3 years (by June 2020)

* KPI that we will newly set up this time

《KPI》 Double the cashless payment settlement ratio, to about 40% within the next 10 years (by June 2027)

* KPI that we will newly set up this time

《KPI》 Four-fold increase the ratio of SMEs and other entities that increase the efficiency of back office operations (finance/accounting and other areas) by utilizing cloud services and introducing IT from the current state to 40% within the next 5 years (by June 2022)

* KPI that we will newly set up this time

《KPI》 Improving the fund circulation efficiency (Supply Chain Cash Conversion Cycle: SCCC) for each supply chain of Japan by 5% by FY 2020

* KPI that we will newly set up this time

(2) Specific measures to be newly taken

In respect of FinTech, based on the challenges and the fundamental direction indicated in reports from the Financial System Council and the Payments Council on Financial Innovation, such as the action plan agreed by the Working Group on Payments and Transaction Banking of the Financial System Council, the government will achieve the sophistication of financial services while keeping in mind the protection of users, etc., and accelerate initiatives so that FinTech will lead to the growth of Japan's economy and finance in terms of improvement of user convenience and productivity of companies.

i) Development of the environment for innovation, etc.

① Acceleration of the challenges to achieve innovation using FinTech

In order to accelerate the challenges of stakeholders to achieve innovation utilizing FinTech, the government will work on the following measures so that FinTech from Japan will lead the world.

A) Development of an environment that facilitates the challenges (FinTech Demonstration Test Hub (tentative name))

The Financial Services Agency will take measures to facilitate demonstration tests on FinTech. In doing so, financial regulators will study measures to be taken through more active and attentive manners taking into consideration of the importance of eliminating hesitation and concerns of FinTech companies and financial institutions (risks related to compliance and supervision) that

they tend to have when they carry out unprecedented demonstration tests. Meanwhile, relevant ministries and agencies will work together on such initiatives and take measures such as installing a liaison counter to help solve not only failures related to financial laws and regulations, but also other failures.

B) Acceleration of the initiatives toward practical application of blockchain technology in financial services

Blockchain technology, in particular, is highly likely to become a game changer that changes the mechanism of the financial system itself. Therefore, from the viewpoint of securing the competitiveness of Japan's financial businesses, the government will proactively advance the initiatives aimed at practical application of blockchain technology in the financial field.

Specifically, the government will implement the following initiatives aimed at achieving international initiatives related to practical application of blockchain technology, improving user convenience, and strengthening growth potential.

- The government will begin the operation of the platform for demonstration tests on blockchain technology, which will serve as a center of practical application of blockchain technology. Using this platform, the government will initiate demonstration tests to advance the sophistication of financial infrastructure, in areas such as transactions of electronic record monetary claims, identity verification and management of payment and logistics information through a collaborative effort from FinTech companies, financial institutions, the Financial Services Agency, the Bank of Japan and other related parties.
- In respect of blockchain technology, the government will advance joint research in cooperation with international research institutions and other related parties so that Japan can lead international research. The government will also consider participating in an international consortium on blockchain technology as a financial authority.

② Promotion of Open Innovations

Keeping in mind that worldwide innovation competition is occurring with respect to FinTech, the government will work, as a fundamental direction, on the strategic utilization of a large financial stock, which includes the sophisticated banking system network, big data of settlement, etc.

For this purpose, the government will make efforts to develop the world's most advanced environment and infrastructure that will allow FinTech companies to connect their advanced ideas and technologies to real financial services through taking advantage of the bank network, in particular, forming an ecosystem for open innovation (collaboration between FinTech companies and financial institutions, etc.) centered on open API.

From such point of view, the government will take the following measures, in specific;

- The government will enforce the Act for Partial Amendment to the Banking Act. At the same time, the government will follow up the progress of the open API initiatives taken by banks, including the number of banks providing API, the number of contracts that banks entered into with electronic settlement agencies, the number of business operators registered as electric settlement agencies, and so on. Also, the government will review the issues identified in the Financial System Council report on the bank agency business, etc. and advance the development of an environment for open innovation. In addition, at the Open API Review

Committee established by stakeholders that include FinTech companies, the government will study further issues related to the advancement of open API.

- The government will study issues further on how a legal system concerning financial institutions and other should be, including development of a cross-sectional legal system that covers payment and settlement operations and other businesses. In this study, the government will take full consideration of the necessities to advance the innovation of financial services by FinTech companies and other entities, to enable the financial industry to utilize new technologies, and to allow financial institutions to agilely develop and implement services and capabilities by using IT, etc. and to expand business opportunities that include areas peripheral to their businesses.
- The government will study an efficient personal identification method suitable for FinTech.
- The government will study the advancement of the initiative that allows the government and private enterprises to effectively and efficiently respond to regulations and supervision through information sharing between the government and private enterprises by utilizing open API, blockchain technology and other technologies (RegTech).

ii) Cooperation with international human resources and overseas authorities

Amidst the worldwide progress of FinTech, in order for Japan to take the initiative, the government will implement initiatives in which state-of-the-art human resources and knowledge are mobilized from both inside and outside of Japan by promoting international collaboration and cooperation, network formation, etc. Specifically, the government will work on the following measures;

- The government will provide assistance to international efforts related to FinTech and overseas expansion of FinTech companies by utilizing the international cooperation frameworks on FinTech with financial authorities in the UK and Singapore. Furthermore, the government will consider the expansion of the cooperative framework with overseas financial authorities.
- From the perspective of encouraging talented people from overseas, including Asia, to start financial and other businesses in Japan (Inbound Venture), the government will provide support to overseas financial business operators so that they can open offices in Japan by installing a support desk for financial business establishment by working with the Tokyo Metropolitan Government.
- Regarding the initiative (RegTech) that allows the government and private enterprises to effectively and efficiently address regulations and supervision through sharing of information between the government and private enterprises by utilizing open API, blockchain technology and other technologies, the government will work internationally in cooperation with overseas stakeholders.
- In cooperation with the FinTech industry and private organizations, the government will hold an international conference (FinTech Summit) where various stakeholders concerning FinTech meet together.

iii) FinTech action plan for strengthening companies' growth potential

With the establishment of the new XML system, from the perspective of sophisticating overall financial and settlement processes of enterprises, the government will advance the "FinTech Action Plan for the enhancement of corporate growth potential", which aims to sophisticate

financial and settlement processes of enterprises as a whole, with the utilization of financial EDI as the start point. In doing to, the government will study the potential transition to electronic bills / checks across Japan.

① Introduction of IT and cloud computing in accounting processes of SMEs and others

- In respect of introduction of IT and cloud computing that contributes to the improvement of efficiency of back office operations of SMEs and other entities, the Ministry of Economy, Trade and Industry will consider more proper target levels in collaboration with the industry, taking into consideration measures that have currently been implemented.
- In addition to promoting the initiatives to advance the introduction of cloud and other services that will lead to the sophistication of back office operations of SMEs and the utilization of new corporate lending services utilizing data, the government will create advanced cases of FinTech introduction, using the "Local Benchmark", which is a corporate health diagnosis tool.
- The government will promote the compliance of the Electronic Book Maintenance Act by electronic settlement agencies.

② Computerization of commercial flow information

By the fiscal year of 2020, the government will advance the dissemination of standardized items of commercial flow information to be stored as financial EDI information, and further advance coordination among companies across industries through EDI.

③ 24-hour, 365-day interbank payment system

The government will realize a 24-hour, 365-day interbank payment system next year. In addition, the government will start follow-up work on the use of internet banking by companies for the purpose of promoting the use of internet banking by companies.

④ Promotion of integration of information on monetary and commercial flows through the promotion of financial EDI

- In respect of introduction of XML telegram message in financial institutions, the government will continue to make efforts to launch the new XML system next year and to fully adopt XML telegram message by 2020.
- In the autumn of this year and later, the government will conduct demonstration tests on the management of settlement and logistics information utilizing blockchain technology in the financial industry in collaboration with the Financial Services Agency and other institutions.

⑤ Loan service and streamlined tax procedures utilizing data of the XML new system, etc.

The government will study loan services (analysis of commercial flow information, etc.) and tax services (support of tax procedures by XML new system (issuance of electronic receipt, etc.)) that utilize data of XML new system and other systems.

⑥ Shifting to electronic notes / checks across the entire nation

From the viewpoint of reducing the administrative burden of both companies and financial

institutions concerning bills and checks and of enabling coordination with financial services that utilize IT, the government and the industry will work together to consider full adoption of electronic notes/checks.

iv) Advancement a cashless society and sharing and utilization of consumption data

- In order to reduce cost of card settlement and improve the convenience of consumers through the utilization of FinTech, and thereby to boost the development of a cashless society, the government will allow business operators to use electro-magnetic methods, including e-mail, when they provide settlement information to customers. This measure will be taken as an effort based on the Act for Partial Amendment to the Installment Sales Act to ease card affiliated stores' obligation to deliver information about card transactions to customers in the form of documents.
- In order to further advance the sharing and utilization of consumption data through the utilization of FinTech, the government will develop an environment for the advancement of API coordination concerning credit card data usage and for the standardization of digital receipt format aimed at advancing digitization of receipt by the end of this fiscal year.
- In respect of the advancement of installation of ATMs that accept foreign-issued credit cards at financial institutions, in order to establish an environment that allows all travelers to enjoy sightseeing comfortably without being feeling stress, the government will work on the improvement of most of the half of ATMs installed by the mega-banks (about 3,000 units in total) so that these ATMs accept credit cards issued overseas. This effort is based on the "Tourism Vision to Support the Future of Japan" (decided at the meeting of the Council for the Development of a Tourism Vision to Support the Future of Japan on March 30, 2016).

6. Overcoming energy and environmental constraints and expanding investment

(1) Main progress status of KPI

《KPI》 Implement legal unbundling of the power transmission and distribution divisions on April 1, 2020, as the final stage of the power system reform.

=> OCCTO (Organization for Cross Regional Coordination of Transmission Operators) was established on April 1, 2015. On June 17 of the same year, the Act for Partial Amendment to Electricity Business Act and Other Related Acts in which the legal unbundling of the transmission and distribution divisions and related measures were prescribed was enacted. On September 1, the same year, the Electricity Market Surveillance Commission (currently the Electricity and Gas Market Surveillance Commission) was established. Full liberalization of retail electricity sales was implemented on April 1 last year.

《KPI》 Aim to increase the proportion of next-generation automobiles to newly sold passenger automobiles to 50% to 70% by 2030

=> Proportion of next-generation automobiles to newly sold automobiles is 35.8% (as of last year)

《KPI》 Establish about 160 commercial hydrogen stations by 2020 and about 320 stations by 2025

=> 90 stations have opened (as of the end of March this year)

(2) Specific measures to be newly taken

Considering the realization of energy mix and the Paris agreement, the government aims to expand the energy and environmental investment, overcome the energy restrictions, drastically reduce domestic greenhouse gas emissions and make the utmost contribution to the global reduction of emission, and thereby realize economic growth. For this purpose, the government will work on the creation of a virtuous circle of improvement of the profitability by improving energy efficiency and energy conservation investment, dual success of an introduction of renewable energy to the most and the control of the burden on the people by the feed-in tariff, etc., the revitalization of competition in the power and gas markets and addressing issues related to public interest faced under liberalization, and building new energy systems such as hydrogen utilization. The government will also advance the strategic resource development investment, development of a resource procurement environment, steady recycling of secondary resources, international development of energy and environmental industry, etc. Furthermore, taking the G7 Ise-Shima Leaders' Declaration into consideration, the government will conduct discussions to formulate a long-term Greenhouse Gas low emission development strategy well ahead of the deadline of 2020 and submit it to the United Nations, and also advance the development of infrastructure for climate risk information, promote adaptation measures concerning agriculture and disaster prevention in each region of the country, and develop them internationally, thereby

connecting to the reduction of investment risk and development of adaptation business.

i) Promotion of thorough energy conservation

- The government will promote energy conservation by business operators in terms of both regulation and support. The government will also study measures by the end of this fiscal year to promote determination of energy conservation investment by management, opening of periodical report data, etc. required by the Energy Conservation Act, collaboration efforts by multiple business operators (data coordination by smart factories, waste heat matching, strengthening cooperation between cargo carriers and shippers, etc.), support to SMEs in their energy conservation efforts by private enterprises equipped with energy saving expertise and provision of information by energy retailers, etc.
- In order to promote energy conservation in the civilian sector, the government will mandate compliance with the energy conservation standards for newly built houses and buildings in stages by 2020 while fully considering the necessity and degree of regulation and balance and aim to make newly built houses and buildings equivalent to ZEH or ZEB on average by 2030. For this purpose, the government will advance the generation of social awareness of heat insulation performance and energy consumption performance.
- In order to promote energy conservation in the transport sector, the government will promote energy conservation by disseminating next-generation automobiles, establishing and disseminating evaluation systems for transport operators. In respect of automotive storage batteries, the government will accelerate the development and practical application of all solid-state lithium ion batteries, etc., which have more excellent performance in terms of safety than current liquid lithium ion batteries.
- The government will expand the markets of low-carbon type products, services and lifestyles through national campaigns aiming for the promotion of energy conservation efforts by each region in cooperation with local governments and other organizations.

ii) Advancement of introduction of renewable energy

- The government will work on the measures to resolve the grid constraints, including the improvement of efficiency of power systems, development of interconnections between areas, improvement of efficiency of actual operation of output control, development and demonstration of technology relating to output prediction and discharging control of accumulators, development of transmission network and demonstration of technological issues at sites suitable for wind power generation, etc.
- The government will work on the technology development of photovoltaic power generation for reducing cost and packaging products, utilization of data and cost reduction in wind power industry, etc. In order to advance the introduction of offshore wind power generation, in addition to generalizing the method of speeding up environmental assessment, the government will streamline the process for occupation of port area required by the Port and Harbor Act and the examination of a construction plan notification required by the Electricity Business Act and make rules on the use of general sea areas.
- The government will prepare an environment aimed at widely introducing biomass power generation using various biomass, including woody biomass and waste biomass such as sewage sludge.

- The government will advance the zoning method study model project aimed at promoting the introduction of wind power generation compatible with environmental conservation and take measures to advance the introduction of wind and solar energy such as promoting the establishment of a regional council to promote information sharing and consensus building.

iii) Establishment of new energy systems

- The government aims for the realization of 3E+S while effectively utilizing the market mechanism to stimulate the competition in the electric power market. For this purpose, the government will raise the liquidity of the wholesale power market and establish new power markets such as base load power market, capacity market, non-fossil value trading market, and review the interconnection line usage rules, also advance the detailed institutional designing on the assumption of an introduction thereof around 2020. The government will also study power futures trading taking into consideration of the development of an environment where power futures trading is made together with LNG and other energy futures trading as a one stop service as much as possible.
- Aiming at the establishment of an innovative energy management system ("Reform 2020" project), the government will work on the initiative to advance the expansion of energy equipment that can be used for negative watts trading and virtual power plants, etc., the expansion of communication standards, establishment of high precision control technology in seconds, demonstrations aiming at developing communication infrastructure, reduction of the cost of stationary storage batteries. Furthermore, in order to maximize the utilization of renewable energy, the government will demonstrate the demand-generating demand response beginning this fiscal year, at the same time reviewing the institutions for leveling the electric demand based on the Energy Conservation Act this fiscal year. The government will also advance the construction of an energy system based on the local production for local consumption.
- Aiming at the realization of a "hydrogen society" that fully utilizes hydrogen energy, the government will advance the introduction of fuel cells for household, business and industrial use, and accelerate the dissemination of fuel cell vehicles, fuel cell buses, hydrogen stations, etc. by advancing following initiatives collectively; establishing a new promotion framework by government and private sectors toward the strategic development of hydrogen stations; implementing technological development and demonstrations to reduce cost; advancing regulation reforms on the safety management of hydrogen stations based on the new regulatory reform implementation plan; and so on. In addition to the above-mentioned initiatives, the government will advance the establishment of an international hydrogen supply chain and implementation of hydrogen power generation technology development and demonstrations, and formulate a national basic strategy by the end of this year incorporating the scenario for a full-scale introduction around 2030, aiming at the realization of a hydrogen society.

iv) Promotion of the Fukushima Plan for a New Energy Society

- Based on the "Fukushima Plan for a New Energy Society" (September 7, 2016, Decision of the Council for Realising the Fukushima New Energy Society Vision), the government will advance various measures, for example, enhancing the wind power generation transmission lines in order to expand the introduction of renewable energy. In addition, the government will

transmit the potential of hydrogen and the successful reconstruction of Fukushima to the world by manufacturing hydrogen on a large scale from renewable energy in Fukushima Prefecture under the name of the "Utilization of CO₂-free hydrogen derived from renewable energy ("Reform 2020 Project") and utilizing it in the Tokyo Olympics and Paralympic Games in 2020. Therefore, the government will begin introducing demonstration facilities during this fiscal year.

v) Strengthening of research and development of innovative energy and environmental technologies

- The government will form a research group consists of industry, academia and government and work on the extraction of issues that are causing bottlenecks in the promising fields that have been specified in the "Energy and Environment Innovation Strategy" (April 19, 2016 Decision of the Council for Science, Technology and Innovation) and study the solution of such issues this fiscal year, at the same time, consider new projects to be implemented and encourage joint efforts from government and private enterprises.

vi) Strengthening of resource security under sluggish resource prices, etc.

- The government will promote securing of resource interests by Japanese companies by strengthening assistance in risk money supply based on the Act on the Japan Oil, Gas and Metals National Corporation, Independent Administrative Agency, which was revised in November 2016 as well as by strengthening resource diplomacy with the United Arab Emirates (UAE), Russia, etc. The government will also steadily implement measures to ensure stable supply including provision of support in the exploration and development of mineral resources such as lithium and cobalt, the prices of which are rising against the backdrop of the spread of electric vehicles worldwide.
- To further advance the development of conventional petroleum and natural gas in Japan, the government will review the exploration framework including the renewal of three-dimensional geophysical survey vessels and promote the utilization of data such as information on mining areas. In respect of marine resource development, in relation to methane hydrate, the government will advance the public-private cooperation such as technology development for the development and commercialization thereof based on the results of marine production tests. In respect of submarine hydrothermal deposit and rare earth mud, etc., the government and private sectors will work together toward the development and commercialization thereof.
- In order to promote the recycling of useful metals and other resources taking advantage of the advancement of Japan's environmental technologies which we boast, the government will develop technologies that will contribute to the improvement of productivity of nonferrous smelters, etc., and strengthen the competitiveness of circulating industry aiming at widely disseminating the small home appliance recycling system and increasing collection volume and establishing a resource recycling system, through the production of award medals for the Olympic and Paralympics utilizing urban mines.
- Based on the "LNG Market Strategy" (Formulated by the Ministry of Economy, Trade and Industry on May 2, 2016), the government will advance measures for the realization of a flexible and highly transparent LNG market in collaboration between government and private sector. In particular, the government will provide support in the elimination of destination

restrictions and the expansion of the LNG market throughout Asia, including Japan so as to achieve Asian energy security.

vii) Utilization of nuclear power generation the safety of which has been verified

- Under the premise that priority is given to the safety over any circumstances and the government will do its utmost to dissipate public concern, the government maintains a position that the safety of nuclear power plants is left to the expert judgment of the Nuclear Regulation Authority, and when a nuclear power plant is determined to conform to the regulation of the world's most severe level by the Nuclear Regulation Authority, the government will respect the judgment and restart the nuclear power plant operation. At that time, the government will also stand in the front line and work to gain understanding and cooperation of stakeholders such as the local municipality.
- In respect of nuclear disaster countermeasures, the government will enhance the formulation of evacuation plans, human resource development through training and education, securing evacuation routes by road improvement, etc., improvement of radiological protection facilities in order to ensure the safety and security of residents. At the same time, the government will make efforts to restore society's confidence in nuclear energy, by developing a framework to constantly pursue safety by listening to the voice of the community, through the repeated dialogs among all stakeholders involved in nuclear generation (autonomous system for continuous improvement of safety of nuclear power), to enhance and materialize activities for the settlement of the accidents and victims' support, etc.
- From the viewpoint of improving the safety, reducing the volume of radioactive waste, reducing the level of harmfulness, etc., the government will advance research and development for the future on the premise of nuclear non-proliferation efforts, by utilizing the high-speed experimental furnaces owned by the Japan Atomic Energy Agency and universities, etc. and the test research reactors that include high-temperature gas reactors, while properly advancing international cooperation, also taking into consideration of the "Fast Reactor Development Policy" (December 21, 2016, Nuclear Energy Ministerial Decision). At the same time, the government will steadily work on the human resource development, etc. in such fields.

viii) Promotion of international development of Japan's energy and environmental industry

- In order to strengthen the international competitiveness of the energy industry and promote overseas development under the environment after the full liberalization of retailing of electricity and gas markets, the government will lead the formulation of international standards concerning the operation and maintenance of power plants, at the same time providing support for the development of energy policies of emerging countries by strengthening human resources development in ASEAN countries, strengthening the structure of the Economic Research Institute for ASEAN and East Asia (ERIA) and others.
- The government will contribute to the reduction of global carbon emission under the Paris Agreement, through international development of Japan's excellent low-carbon technologies, and connect such efforts to the further economic growth of Japan. The government will aim at achieving the overseas business scale of cumulative amount of 1 trillion yen by 2020 through the promotion of the "Japan's Assistance Initiatives to Address Climate Change" (formulated by the Ministry of the Environment on November 11, 2016), acceleration of project formation

utilizing public finance, "visualization" of reduction contributions and provision of the credit system (JCM), which can lead to the spread of projects not depending on subsidy led by private sector.

- In order to advance international development of circulation industry and the construction of an appropriate resource recycling system, the government will actively spread awareness of the benefits gained from an introduction of sophisticated technology and the promotion of resource recycling to Asian countries concerned and provide assistance in the establishment of selection processes of business models or proper technology related to waste power generation, domestic wastewater treatment, etc., and the introduction of institutions, collectively. The government will advance training of personnel related to waste treatment, preparation of guidelines, etc., for African countries.

7. Robot Revolution / Bio Material Revolution

(1) Main progress status of KPI

《KPI》 Robot domestic production market size in 2020: 1.2 trillion yen in manufacturing field, 1.2 trillion yen in non-manufacturing fields such as service field

=> FY 2015: Approx. 689 billion yen in manufacturing field, approx. 123.9 billion yen in non-manufacturing fields

(FY 2014: Approx. 590.1 billion yen in manufacturing field, approx. 61 billion yen in non-manufacturing fields)

《KPI》 More than 2% annual improvement in labor productivity of manufacturing industry

=>The average growth rate for the most recent 3 years (2013 - 2015): 1.4%

《KPI》 Market size of robot care equipment, approx. 50 billion yen in 2020, approx. 260 billion yen in 2030 [Approx. 1 billion yen (2012)]

=>In 2015: 2.47 billion yen

《KPI》 20% of domestic important infrastructure / aging infrastructure, will have increased the level of efficiency by around 2020 by utilizing sensors, robots, non-destructive inspection technology, etc., and all of them by 2030.

=>In respect of next-generation social infrastructure robot inspections in underwater sector, the introduction to the sites began on a trial basis in FY 2016. As for the social infrastructure monitoring technology using sensors, etc., on-site verification has been in progress.

《KPI》 Realization of an unmanned automated driving system by remote monitoring, including move between fields, by 2020

=>Research and development aimed at realizing unmanned driving of agricultural machines by remote monitoring is underway in the "Strategic Innovation Creation Program (SIP)". Also, aiming for the commercialization of automated driving of agricultural machines under manned surveillance, the "guidelines for ensuring safety concerning automated driving of agricultural machines" (formulated by the Ministry of Agriculture, Forestry and Fisheries in March, 2017) was formulated.

(2) Specific measures to be newly taken

The government will make the social challenge of a shortage of workers due to a decline in production age population a great opportunity to realize a world's best robot utilization society. Since the decision of the "Robot New Strategy" that presents the strategy and roadmap, which

was made in February 2015, by the Headquarters for Japan's Economic Revitalization, the government has accelerated the initiatives for technological development and demonstrations by each sector (manufacturing, service, nursing care, medical care, infrastructure, disaster response, construction, agriculture, forest, fisheries and food industries). Moving forward, their focus must be shifted to the stage of actually incorporating in society on a full scale from the stage of development and demonstrations.

The government will advance the introduction of robots to SMEs and micro businesses, which will become the key to spreading the 4th Industrial Revolution to the entire nation. The government will advance measures to drastically reduce robot introduction costs until 2020 and double human resources that support the introduction of robot systems.

The government will also advance the introduction of robots that meet the needs of work sites of various fields. In order to accelerate the development and demonstrations of technology for this purpose, the government will develop a new "Fukushima Robot Test Field" in the Hama-dori area, Fukushima Prefecture so that it could be utilized from next fiscal year sequentially, making it a demonstration base of next generation robots that Japan boasts to the world. At the same time, the government will advance the realization of industrial clusters, with the said field as the core, improvement of the surrounding environment, creation of businesses in cooperation between local enterprises and non-local enterprises, and advance the "Fukushima Innovation Coast Concept" that is also incorporated in the Act on Special Measures for the Reconstruction and Revitalization of Fukushima with robots as one of the priority areas. In respect of small unmanned aerial vehicles, the government will expand the scope of industrial use by advancing technological development and institutional considerations so that small unmanned aerial vehicles could be used for logistic purposes safely and on a full scale in highly populated cities in the 2020s. The government will accelerate the realization of the concept of the "Reform 2020" project that promotes the incorporation of advanced robot technology into society and showcasing the achievement towards 2020.

While in the field of biotechnology, integration with big data and AI technology has advanced rapidly, which has made it possible to make a maximum use of potential biological functions that had not been fully used. On the other hand, the domestic market of high-cost biotechnology products is small, in reality, which prevented Japan's elemental technology from being fully utilized. Moving forward, by implementing the development of technology infrastructure and market creation integrally in collaboration with government and private sector, a new industry creation/recycling society utilizing innovative biotechnology could be realized.

Further, in the space field, amid the situation where both the quality and quantity of available data have drastically improved, and the market size of new business and services that utilize big data and AI technology is expected to expand drastically, which will become a key for Japan to winning an international competition moving forward. In conjunction with the space equipment industry, which will become infrastructure, the government will boost the creation of new industries.

Along with these robots and technologies in cutting-edge fields, new technologies that can be applied to a wide range of industrial fields such as VR and AR are also progressing.¹ There are expectations for the creation of innovation in a wide range of fields, for example, provision of new products and services combining such features with robots that can change the society, as giving users perceptions close to real experiences on the spot without travelling to such scenes or being able to overlay information on the real situation, training in fields related to human life, entertainment, tourism and other areas.

i) Robot Revolution

① Execution and evolution of robotic new strategy

- The government will provide expert support for IT and robot introduction to more than 10,000 companies by the end of this fiscal year, aiming at the creation of new services and added value using data from SMB and SME in manufacturing industry. The government will also encourage initiatives to develop bases that allow businesses to receive consultation from the "Smart Manufacturing Support Team", which provides consultation on the improvement of manufacturing sites and also provide assistance in the utilization and introduction of IoT/robots, with an aim at setting up such bases at about 40 locations nationwide within two years. In addition, the government will promote measures to strengthen training in its effort to double the number of "system integrator" that proposes and supports SMEs in their robot introduction to 30,000 by 2020.
- Aiming at achieving a reduction of small general-purpose robot introduction cost by more than 20% by 2020, the government will advance the development of platform robots equipped with common functions to become infrastructure that can be used in general-purpose work and processes, so that they could reach the level to be sold in the market in FY 2019.
- The government will steadily advance the demonstrations of the effectiveness of utilization of robots, sensors and the like at nursing care sites, then based on the demonstration results, take measures in the aspect of institution such as reviewing nursing care service fees, personnel/equipment criteria, and other matters in respect of the robots and sensors that are found to contribute to the maintenance and improvement of the quality of living of users and also the reduction of the burden on caregivers at the time of the nursing care service fee revision for the next term. [Repeat]
- In our future development of nursing care robots, our goals are to maintain and improve the quality of life of users through self-support and at the same time to reduce burden of caretakers. We will thus newly cultivate and assign project coordinators who can truly pick up the on-site needs, turn them into development seeds and lead the projects. Also, We will re-examine the development fields to be focused on for the robot nursing care equipment, decide the direction of our strategic development by this summer, and reflect it to the development support goal for the next fiscal year and on. The government also support in the evaluation and test data

¹ VR · AR: VR stands for Virtual Reality, which is technology that allows the user to experience immersive feeling like being in virtual space. AR stands for Augmented Reality, which is the technology that displays information such as images superimposed on the real space and offers the user experiences that add information onto the current environment.

acquisition for advancing coordination between ISO13482, which is the standard concerning the safety of the day-to-day living support robots and the overseas systems, so as to smoothly develop an overseas robot nursing equipment market. [Repeat]

- The government will formulate evaluation standards, test methods and the like for infrastructure inspection and disaster response robots during the current fiscal year aiming to achieve further sophistication and efficiency of infrastructure inspection and disaster response. “Procedures for the Inspection of Robots” for underwater robots that show procedures of robot use will be established by the end of this fiscal year, and we will further establish procedures for other fields including bridges and tunnels. In order to advance the development by presenting development targets, the government will set and announce the required performance depending on the scene, in which a robot is used, beginning this fiscal year. In addition, the government will work in collaboration with infrastructure managers to advance assistance in the development of advanced technologies such as robots, AI and the like.
- Aiming for the commercialization of unmanned systems under manned monitoring of agricultural machines by next year, utilizing geospatial information (G space information), realization of an unmanned automatic driving system by remote monitoring by 2020 and so on, the government will advance the research and development and on-site demonstrations of AI, IoT, big data, robot technology, etc. in the agriculture, forestry and fishing fields.
- In respect of small unmanned aerial vehicles, the government will implement baggage delivery next year in areas such as mountainous areas where such needs are expected to be generated. The government will also advance the development of technology and institutions that enable advanced flights such as BVLOS (Beyond Visual Line of Sight) Flight that doesn't require assistants and flights over third parties aiming at implementing baggage delivery on a full scale in highly populated cities in the 2020s. Through the utilization of the demonstration field located in the Fukushima Hama-Street area, the government will formulate performance evaluation criteria of aircrafts, and advance the development of flight management systems, collision avoidance technology and the like that enable simultaneous flights of multiple aircrafts, and also advance the international standardization. The government will also conduct research and study with regard to the use of radio waves for the realization of BVLOS (Beyond Visual Line of Sight) flights, taking into consideration of the progress of the flight rules and technology development of small unmanned aircraft. In addition, the government will clarify the requirements of the aircraft and pilots, etc., concerning BVLOS (Beyond Visual Line of Sight) Flight that doesn't require assistants by the end of this fiscal year, revise the examination guidelines for permits and approvals based on the Civil Aeronautics Act early next year, and consider streamlining of the application procedure by utilizing the Council that is working on the formation of agreements with stakeholders and the formulation of safety measures. In this way, the government will revitalize the unmanned aircraft industry through technological development and response to the system, aiming to expand the industrial use.
- Aiming at the realization of next generation robots, the government will develop a simulation environment at a global research base on the field of integration of high-precision sensors, camera systems or other technologies with AI technology, and undertake industry-academia-government joint projects that cover from research and development, practical application through commercialization in an integrated manner, for example, production line control by AI, coordination of autonomous work robots, etc. beginning this

fiscal year

- In preparation for the "World Robot Summit" (Robot International Competition) to be held in Aichi Prefecture and at the "Fukushima Robot Test Field" in 2020, the government will establish standardized international evaluation methods for robots in the fields specified by the Summit, and work on the preparations for the next year's pre-competition including publicity activities.

② **"Reform 2020" Project (Realization of a Universal Future Society by advanced robot technology)**

- The government will advance demonstration tests under the council that is made up of industry, government and academia, and showcase on a trial base the achievement of Japan at the "RoboCup 2017 Nagoya World Tournament" to be held this year in close collaboration with local stakeholders, that include local governments.
- Aiming at promptly realizing robots that provide services in urban areas, airports, etc., the government will conduct demonstration projects to create concrete exemplary cases of utilization, and disseminate the results widely through international exhibitions, or other venues. The government will actually utilize the "Guidelines for securing the safety of living support robots and robot systems (1st edition)" (formulated by the Robot Revolution Initiative Council, on June, 28, 2017) on the field in the demonstration projects and study for revisions as necessary.

ii) **Bio-material revolution**

- The government will advance the technological development engaged by industry, academia and government for the production of functional substances utilizing living things, and formulate a strategy by this year, aiming at the creation of a new market for Japan's biotechnology industry, also advance comprehensive measures that include institutional development aiming at the realization of a carbon recycling-oriented society with innovative bio materials and a society of health promotion by diet and presymptomatic.
- The government will develop a cross-sectional database that aggregate biological resource data owned by public institutions etc., and build a real data platform for analysis by AI, etc. next fiscal year so that it can be used by industry, government and academia.
- In order to accelerate private investment in the biotechnology field where growth is expected, in respect of industrial utilization of genomic editing technology, the government will facilitate the application procedure by allowing a collective application by each facility that uses the technology, in addition to an application by organism used, this year. The government will also study measures to develop business environments, including the creation of new markets through evaluation of environmental performance of bio products, the facilitation of supply of research and development funds, etc. through the promotion of the creation of funds to be invested in the bio industry after listing of shares by the end of this fiscal year.

iii) **Expansion of space business**

- Based on the "Space Industry Vision 2030" (May 29, 2017, Summary of Space Policy Committee), the government will advance a full-scale business use of space and strengthen the

international competition of the space equipment industry through the utilization by private business operators in active manners.

- While positioning the universe as a big data infrastructure with analysis technology such as AI, regarding government satellite data (excluding those pertaining to security uses), we will open it up free of charge and develop concrete disclosure methods etc. from the user's perspective based on international trends and others and create new businesses. Also, to create advanced demonstration cases, we will begin demonstration towards the fusion of space data and ground data in agriculture, forestry and fisheries, disaster prevention, infrastructure maintenance and other fields this fiscal year. We will promote the utilization of satellite data (so-called anchor tenancy) from domestic operators by government/public institutions as well.
- In respect of the development of space equipment, the government will launch a series of satellites that meet market needs and provide support for domestic production based on the "Comprehensive technology strategy on parts and components for space" (March 31, 2016, Cabinet Secretariat, Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry, Ministry of Defense) and also advance demonstration projects in outer space.
- The government will gain globally vigorous demand for small satellite launching businesses, through the development of H3 rocket aiming at strengthening the international competitiveness, enhancement of the competitiveness of private small rocket businesses, development of guidelines for the improvement of private launch fields, etc.
- The government will strengthen the support to venture companies such as "constellation enterprises" that operate large quantities of small satellites that are responsible for cultivating the frontiers of space utilization, and examine institutional development for the provision of risk money utilizing government-affiliated financial institutions such as Development Bank of Japan (DBJ) for enhancement of the viability of resource exploration venture companies and other entities.
- Based on the "Basic Space Plan" (April 1, 2016 Decision of the Cabinet) and "Basic Plan for the Advancement of Utilizing Geospatial Information " (March 24, 2017 Decision of the Cabinet), the government will develop Quasi-Zenith System with 4 satellites next fiscal year and increase the sophistication of automated driving of agricultural machines and disaster prevention systems through the realization of high precision positioning service, etc. Furthermore, the government will advance the G space project, which distributes and utilizes geospatial information with the G-space Information Center as the core, realize sustained positioning through the Quasi-Zenith Satellite System with 7 satellites targeting by 2023, and maintain and strengthen the R&D infrastructure associated with satellite positioning technology, geospatial information technology, and other technology. The government will also provide assistance to countries in Asia and the Pacific in the commercialization of high-accuracy positioning information distribution services, as well as advance international expansion to Europe and other regions by ensuring interoperability with the signals of Europe's Galileo satellites.

iv) Expansion of the aircraft industry

- The government will aim for the development of the "Matsuzaka Cluster" model that realizes an integrated production system directly linked to the improvement of production efficiency by providing support in the training of human resources responsible for special process

(nondestructive inspection) and in the facility investment utilizing IoT. The government will also establish the "National Aircraft Cluster Network" and provide support so that the clusters throughout the country could be offered collectively in Japan and to overseas, and also create opportunities for business negotiations with overseas companies in order to foster autonomous clusters capable of directly appeal themselves amid increasing overseas demand.

- Furthermore, in order to expand the scale of businesses of the Japanese aircraft industry, the government will deepen cooperation with Boeing through support for the development of advanced technology, human resource development, efficient supply chain construction, etc. Also, the government will create matching opportunities with companies with fewer cooperation opportunities such as Airbus.
- In respect of finished machine businesses including MRJ (Mitsubishi Regional Jet) in the future, the government will expand orders by top sales, develop human resources for emerging countries including Asian countries and other regions and conduct preliminary study the order receiving (Airport infrastructure, etc.) while properly conducting a safety assessment. The government will also accelerate the domestic development of aircraft-related parts with the completed MRJ as demonstration infrastructure (test bed).

8. Revitalization of housing market centering on the existing housing distribution / renovation market

(1) Main progress status of KPI

《KPI》 Double the market size of existing housing distribution to 8 trillion yen by 2025 (4 trillion yen in 2010). * The government aims to achieve the target by 2020 as much as possible.

=> In 2013: 4 trillion yen

《KPI》 Double the market size of renovation to 12 trillion yen by 2025 (6 trillion yen in 2010). * The government aims to achieve the target by 2020 as much as possible.

=> In 2013: 7 trillion yen

(2) Specific measures to be newly taken

Amid the trend of declining population and birthrate and aging population, in order to realize economic growth, it is necessary to develop and cultivate new housing markets.

Therefore, the government will advance the initiatives comprehensively; revitalizing existing housing distribution and renovation markets by developing markets in which high-quality existing houses are appropriately evaluated as assets while updating to safe, high-quality residential stocks by rebuilding and remodeling, and also establishing an environment in which existing houses can be traded with confidence.

In a addition, in order to address vacant house issues which have become increasingly severe, that occurred as a result of inheritance, etc., under the idea of utilizing what can be used and eliminating what should be eliminated, the government will restrain the increase of vacant houses and enhance proper management, at the same time advancing the activation of distribution in the market and effective utilization of existing stocks, from the viewpoint of maintaining and improving the attractiveness of not only individual houses but also residential areas such as the residential environment or local community.

In addition, by promoting the spread of next-generation housing utilizing IoT technology, etc., the government will create a new housing service market.

i) Measures to be taken for the promotion of distribution of existing houses and against vacant house issues

- Aiming at the advancement of distribution and utilization of vacant houses, etc. by public-private partnership, the government will boost the efforts by local governments, real estate related organizations, etc., by developing mechanisms that make use of owner information, etc. for the utilization of vacant houses and organizing smooth utilization methods of the property management system, etc., during this fiscal year, at the same time building a nationwide vacant house / vacant land bank. In addition, the government will accelerate the spread of good practices related to the utilization of vacant lots, and also examine necessary institutions and systems.
- For the purpose of solving the owner unknown land issue, in order to make it easy to identify

land owners by investigating the lands in which the inheritance registry has not been conducted for a long time, the government will study concrete measures including the revision of the institutions and take necessary measures according to the results thereof targeting by next fiscal year.

- To meet new needs such as commercial use of traditional folk houses and utilization of vacant houses as group homes and nursery schools, the government will rationalize the building regulations for smoothly diverting existing buildings to other uses.
- In order for young and child-rearing households to move in existing private rental houses such as vacant houses smoothly and without concern, the government will create a registration system targeting businesses that guarantee house rent debt properly this autumn.
- In order to facilitate the rebuilding of aging apartments, the government will construct a mechanism for rebuilding apartment complexes that utilizes the land sale during the current fiscal year.

ii) Measures to be taken to promote the spread of next-generation housing

- Aiming for the creation of new services through the coordination and utilization of household equipment and related data, the government will conduct monitoring demonstrations to ensure product safety and security, then, formulate common rules on data distribution, etc. based on the result thereof. In addition, the government will make proposals aiming for international standardization of communication functions, etc. targeting next year.

II Assignment to build horizontal structures in Society 5.0

A. Creation of value source

1. Establishment of Data-Using Base

(1) Main progress status of KPI

《KPI》 Regarding the data released according to the needs of the private sector based on the public-private round table discussion, the offer rate in a file format suitable for machine interpretation is 100% during the intensive work period until 2020

* KPI that we will freshly set up this time

《KPI》 By 2020, the open data action rate of municipality shall be 100%

* KPI that we will freshly set up this time

(2) Specific measures to be newly taken

In the future, to realize economic growth in a full-scale population declining society that Japan is facing to, dramatic improvement in productivity requires incorporating the results of technological innovation such as the 4th Industrial Revolution into society; however, an important key is the thorough utilization of data. To do so, we need to accelerate future investment to create a "new data infrastructure", which is a "new social infrastructure". Promoting private business investments through the opening of public data centering on areas with high social needs, establishing real data platform such as data distribution based on individual fields, rules to promote data distribution between companies, an establishment of a personal data distribution base, etc., are urgently needed. Also, to maximize data utilization, it is also an urgent matter to consider establishing a fair competition order and develop an intellectual property system corresponding to Society 5.0.

In the future, the "Public-Privatization Data Utilization Strategy Conference," which is the controller of established public and private experts based on the Basic Law on Promotion of Utilization of Public-Private Data, will demonstrate strong leadership. Under the conference, the executive committee which is led by top citizens and comprised of industries, ventures, private experts, relevant ministries, and agencies will be arranged. Based on discussion at the conference, the Cabinet adopted the "Global Leading IT National Creation Declaration, Basic Plan for Promotion of Public-Private Data Utilization Promotion" in May of this year. From now on we will focus on 8 prioritized areas (electronic administration/health, medical care, nursing care/tourism/finance/agriculture, forestry fisheries/manufacturing/infrastructure and disaster prevention/transportation), and will effectively proceed to promote comprehensive utilization of public and private data such as online codifying, promotion of open data, promotion of IT in administration, promotion of BPR, data distribution base and service platform improvements, measures against digital divide, consistency of government and local measures.

i) Promotion of the opening system of public data

- While we set up the "Public and Private Data Utilization Promotion Strategy Conference" consisting of public and private experts as a controller, we intensively implement open data at all agencies as an "intensive work period" until 2020.

- In order to provide public data in a highly convenient form while in consideration of safety, security and personal information, We are considering safety, security and personal information, based on the "Open Data Basic Guidelines" (Decision by IT Strategy Headquarters, Public and Private Data Utilization Promotion Strategy Conference on May 30, 2017).
- We hold a public-private roundtable meeting from time to time as needed this year. Based on the reality checklist, we will promote the opening of data in a form leading to new service creation and resolution of social issues centering on priority areas for public and private data utilization, set at the Public-Privatization Data Utilization Strategy Conference. Through continuous dialogue between the public and private sectors, we will utilize civilian demands for consideration to add necessary priority areas and to examine disclosure methods.
- Regarding the map data of the registry office, as a part of measures to promote the utilization of public and private data by the IT Comprehensive Strategy Headquarters, we will consider to be able to start providing data by 2021, and decide specific conditions and contents during this fiscal year.
- We will promote the utilization of weather information in many industrial fields such as electric power, tourism, distribution, insurance, agriculture through meteorological businesses promoting consortium by industry, academia and government. In order to create a new solid meteorological business, we will promote the release of basic weather observation and forecast data, and review necessary systems such as ministerial ordinance during the current fiscal year.
- While positioning the universe as a big data infrastructure, regarding government satellite data (excluding those pertaining to security uses), we will open it up free of charge and develop concrete disclosure methods etc. from the user's perspective based on international trends and others. We will try to create new businesses while combining analytical techniques such as AI. Also, to create advanced demonstration cases, we will begin demonstration towards the fusion of space data and ground data in agriculture, forestry and fisheries, disaster prevention, infrastructure maintenance and other fields this fiscal year. We will promote the utilization of satellite data (so-called anchor tenancy) from domestic operators by government/public institutions as well. [Repeat]
- We provide ocean information that covers a wide area, real time property and convenience in a wide range other than government and public institutions. We will promote the development of a marine situation display system, which is one of the foundations of aggregation, sharing and provision of marine information in Japan's marine situation grasp (MDA) to promote the use in many industrial fields such as shipping, fishing, renewable energy development, etc. Also, we will support efforts to strengthen its capacity, such as research and development that contributes to MDA.
- In the corporate information that can collectively search, view, and acquire corporate activity information held by the government while using the standard vocabulary base, we will expand the information contents such as permission information, indirect subsidized information, etc. We aim to post one million articles by 2018.
- In this year, we will examine the direction of concrete efforts to connect solutions by AI, IoT, etc., to administrative procedures, cooperation with support measures, standardization based on legal systems, etc.

ii) Data distribution among business operators

- Based on the contract guidelines on the use authority of data formulated in May this year, we will organize points to be noted regarding the setting of usage rights according to the degree of contribution to data creation, and encourage clarification and sharing of data usage authority through the conclusion of appropriate contracts among companies. At the same time, we will organize points to be noted for each field through dialogue with the industry during this year and promote development into individual fields. Also, we will proceed with international discussions on how to set the authority of data utilization.
- To enhance convenience of data users and promote expansion and revitalization of data distribution market, we will realize mutual cooperation among data distribution platforms. To do so, we will formulate self-imposed rules among private business operators based on the contents of "Basic matters to realize cooperation between data distribution platforms"(summarized by IoT Promotion Consortium, General Affairs, Ministry of Economy, Trade and Industry on April 28, 2017) that items that need to be standardized were organized (data catalog, API for catalog). Also, we will support the establishment of a democratic guidance framework to promote its dissemination during the current fiscal year.
- To support investment in innovation, we will promote the necessary legal system, corresponding guidelines and contractual environment in relation to the development of copyright law deregulation, prohibition of illegal acquisition, use and provision of data. (Detailed in "II-A-2. Promotion of Intellectual Property and Standardization Strategy, Securing a Fair Competitive Environment.")

iii) Use of personal data

- Regarding PDS (Personal Data Store), information banks, data trading markets etc., they are mechanisms to promote the distribution and utilization of personal data under individual involvement. While paying attention to "visualization" of its particular merits, we will encourage pioneering efforts through the promotion of public-private partnership demonstration projects in sectors such as sightseeing, medical care, nursing care, healthcare, etc., in addition to the creation of concrete projects. At the same time, to further promote data distribution and utilization based on such demonstration projects and the status of review in other countries, we will examine the ways of institutional systems to ensure reliability, fairness and transparency under individual involvement, and obtain conclusions this year.

iv) Data utilization in the region

- We will try to create new business utilizing IoT, AI, big data, etc., in the region through support measures such as proposal procedure for improvement of the business environment based on the Regional Future Investment Promotion Act.
- To promote local problem solving, we will provide package support for measures utilizing know-how and private funds such as planning support for the regional implementation of IoT contributing to data utilization, labor support such as expert personnel dispatching, clarifying necessary rules, and lateral development of successful cases for the municipality. Also, we actively build a smart city that provides services by utilizing data in multiple areas such as tourism, disaster prevention, etc., on a common open platform. We will create success stories in more than 800 regions and organizations by the year 2020.

- We will prepare for an examination environment where staff of local public entities can acquire skills necessary for open data, and establish coordination / intermediary function between local public entities holding data and private enterprises utilizing it during the current fiscal year. We also provide technical advice to support the smooth introduction of the mechanisms for providing anonymous machining information to municipality so that personal data possessed by the municipality can be utilized appropriately and effectively, realizing the creation of new industries, a vibrant economic society, and abundant residents' living. Also, we will examine mechanisms that the municipality can collaborate with to outsource the creation of unidentified processing information and obtain conclusions during this fiscal year.

v) Transboundary relocation of data

- To improve the environment for the smooth transboundary relocation of personal data between Japan and the EU, we continue to strategically work on building a framework for smoothly transferring individual data between Japan and the EU.
- Based on the Japan-EU Joint Press Statement at CeBIT 2017, we will hold a high-level and expert meeting on data economies involving the relevant ministries and agencies of the EU and Government Organizations and conduct dialogue.
- We will promote the APEC Cross Border Privacy Rules (CBPR) system, which is corporate certification to continue to support transboundary relocation of personal data.
- Based on the enforcement of laws that revise a part of the Personal Information Protection Act in May this year, we will respond to consultation from private enterprises and others concerning the handling of personal information and anonymous processing of information during the first half of this fiscal year. Also, to promote the utilization of data concerning the protection of personal information, we will start delivering information such as the announcement of the case collection based on the results of consultation during this fiscal year and continuously develop an appropriate utilization environment related to personal data. In addition, we will establish a system necessary for promoting data utilization and develop an international data distribution environment for the Personal Information Protection Committee.

vi) Securing information accessibility

- Regarding the improvement of information accessibility, which is positioned in the current "Basic Plan of Disabled Persons (Third)" (Cabinet decision on September 27, 2013), we are considering the discussion of the Policy Committee for Persons with Disabilities. We will review it for expansion and incorporate necessary measures in Basic Plan of Disabled Persons (4th) that is planned to be formulated this fiscal year.

vii) Utilization of information communication infrastructure such as the 5th generation mobile communication system (5G)

- To improve the information communication infrastructure that contributes to social implementation such as automatic driving, we will promote efforts for launching, by 2020, the services of fifth-generation mobile communications system (5G) that enable ultrafast speed, multi-connections, and ultralow-delay. In this summer, we will compile the basic strategy for securing frequency and quickly study technical conditions and frequency securing. In addition, from this fiscal year, we will conduct comprehensive verification tests that include detailed

utilization in areas such as transportation, including local cities, and actively promote participation in international standardization activities and radio-use environment improvements. Also, we will promote fair competition including non-infrastructure companies such as MVNO in the fixed communication market where a smooth transition to mobile market including 5G and IP network is required.

viii) Adjustment/sharing of radio frequency

- From the viewpoint of effective use of frequencies, with regard to the government sector entity to which frequency is allocated and its use, we will take measures, which we can actively disclose while bearing into consideration that there is no possibility of interference with each business due to interception and interference of communication, and referring to overseas case examples. In addition, for frequencies assigned to the government sector, to grasp the actual situation of usage conditions more accurately, we will consider survey methods including audits by a third party, and take necessary measures. We will draw conclusions for both cases during the next fiscal year and take action.
- Next, when setting the target value for securing frequency, we will consider setting target values for the openness of the frequency used by the government sector to the private sector and public/private use. In doing so, we will also consider the precedent case in the United States and the UK.
- We will review the value of the frequency allocated to the government sector, consider related measures and systems for management, and effective utilization of this frequency
- From the viewpoint of promoting the common use of frequencies for public officials and public/private use, we will consider more dynamic sharing methods, such as utilizing more efficient and effective technology to determine general conditions including common place, time and transmission power. As soon as we are ready, we will conduct a technical exam and get a conclusion in 2020.
- From the viewpoint of efficient use of frequency and promotion of reorganization, we will consider not only private enterprises but also applications to public service radio stations regarding termination promotion measures. Also, we will consider expanding to a more flexible system such as considering expenses necessary for smooth business succession of existing licensors during the transition period as the range of expenses to be carried by newly allocated radio waves during this fiscal year, and get the results. We will also consider ways to promote further restructuring such as setting incentives for the government sector, and obtain conclusions.
- Based on the progress status of the above measures concerning adjustment and sharing of frequencies, we will review the government's management system on effective utilization of public radio waves as necessary.
- From the viewpoint of urging new entrants and improving the international competitiveness of our country, regarding "Experimental Testing Authority System," we will thoroughly notify society that we can conduct experiments and tests on the provision of experimental services to general consumers. Also, we will try to thoroughly notify society that licenses covering not only specific areas but also all areas in Japan will be possible if there is no possibility of interference or other obstructions that impedes the operation of existing radio stations. Also, to make the application/review process transparent, when the applicant agrees, we will disclose it

for each individual case regarding application time, examination content, existence/absence of license issuance/decision timing, etc. After completion of the experiment, we will investigate and make a conclusion on the possibility of obtaining a standard license in the same frequency band through a slight intermediate examination process based on the experiment result during the current fiscal year.

2. Promotion of Intellectual Property and Standardization Strategy, Securing a Fair Competitive Environment

(1) Main progress status of KPI

《KPI》 Shorten the time required to acquire patent rights in half over the next 10 years (by 2023) to 14 months on average.

=> The average for 2015 was 15.0 months

《KPI》 Have the ratio of patent applications submitted by SMEs to be approx. 15% by FY2019.

=> The actual result in 2015 was 14%

《 KPI 》 Standardize 100 excellent technologies and products from SMEs and medium-sized companies by 2020.

=> The actual result in 2016 was 5 cases

(2) Specific measures to be newly taken

With the progress of the 4th Industrial Revolution, data is distributed among various entities, and mutual connections are rapidly expanding. On the other hand, increase of the distribution and use of data improves the value of data and technologies to analyze data but makes loss-gain situation complicated, and there is concern that existing intellectual property systems are not able to respond adequately. The utilization of data and AI will not proceed if the data distribution infrastructure is inadequate and concerns about countermeasures to illegal use, disputes, etc., are large. Therefore, to realize economic growth in the society 5.0 era by thorough utilization of data and AI, it is necessary to construct an intellectual property system that appropriately adjusts the interests related to the use of data. Also, with the cooperation of many stakeholders including small and medium-sized venture companies in mind, it is important to promote the multiple open-close strategy including the strategy on data acquisition and utilization in addition to strengthening the rights as intellectual property rights, secrecy as trade secrets, further strengthening the standardization strategy. Based on these circumstances, it is necessary to promote intellectual property and standardization strategy based on the “Intellectual Property Strategic Program 2017” (determined by Intellectual Property Strategy Headquarters on May 16, 2017).

i) Intellectual property/standardization strategy corresponding to the 4th industrial revolution

- To encourage investment in the utilization of data and AI and investment in innovation, the government will develop flexible provisions to limit copyrights of the Copyright Act intending to develop new business using big data and will advance the maintenance of corresponding guidelines and contractual environment. Also, regarding prohibition of unauthorized acquisition, use and provision of data, establishment of an Alternative Dispute Resolution (ADR) system to adjust the interests of intellectual property, enhancement of evidence gathering procedures for intellectual property lawsuits and the role of the patent attorneys on intellectual property and standards, the government will take necessary measures including the submission of bills at the

next ordinary Diet session. Additionally, the government will develop contract guidelines on data usage authority, support the construction of data distribution infrastructure, develop and strengthen the patent examination system that appropriately responds to IoT related inventions, study treatment of AI production processes/products in the intellectual property system etc.

- To ensure market advantage through international standards, in addition to expanding support for international standardization activities and rule formation of the private sector, the government will consider the way of cooperation on strategic and organic standardization of public and private sectors including the controller function (Chief Standardization Officer (CSO)) for acquiring international standards. In addition, under the public-private partnership, the government will secure superiority in international standards of important areas such as automatic driving, smart factory, IoT, etc. and will strategically address international standardization through strengthening collaboration between international standards and various regulations, actively utilizing international standards for government procurement standards, and examining revising the Industrial Standardization Law at the next ordinary session.

ii) Fostering human resources informed on intellectual property and standardization

- The government will promote teaching material development starting from "Consortium for Promoting Creation of Intellectual Property" and construction of learning support system nationwide. Based on "Three Action Plans for the Development of Human Resources Responsible for Standardization Formulated" (formulation by the Working Group for Studying the Development of Human Resources Responsible for Standardization, the Public-Private Strategic Council for Standardization on January 31, 2017), industry, government and academia will strengthen the training of human resources responsible for standardization.

iii) Strengthen intellectual property and standardization strategy of regional SMEs

- The government will promote strengthening intellectual property and standardization strategies in SMEs through various types of support based on the "Regional Intellectual Property Activation Action Plan" (Published by the Patent Office on September 26, 2016). Support includes promotion of the new market establishment standardization system and the standardization utilization support partnership system, business trip interview examination including the regional bases patent promotion program, etc.

iv) Securing a fair competitive environment

- From the viewpoint of ensuring a fair and free competitive environment in the digital market and promoting innovation, the government will grasp the actual situation of transactions in the market. The government will also verify whether businesses with market-dominating power are distorting fair and free competition based on changes in the economic environment and the market and conduct strict and accurate law enforcement when an event that violating the Antimonopoly Act is recognized. Furthermore, to further enhance the effectiveness of law enforcement and to deter violations, the government will review the surcharge system and take necessary measures intending to submit a bill to amend the Antimonopoly Act in the next ordinary Diet session.

3. Strengthen human resources development and activation skills

(1) Main progress status of KPI

《KPI》 By 2022, we aim for 1 million of employed who participate in universities or vocational schools programs.

=> In 2015: Approximately 490,000 people (* KPI that we will freshly set up this time)

《KPI》 By the year 2022, we aim for 5,000of courses targeted for professional practical education and training benefits.

=> In 2017: 2,417 courses (* KPI that we will freshly set up this time)

《KPI》 We will aim for 100% on the proportion of teachers who can utilize IT during lessons by 2020

=> In 2015: 73.5% (* In 2014: 71.4%)

《KPI》 We aim for 100% on the proportion of ordinary classrooms equipped with wireless LAN by 2020.

=> In 2015: 29.8% (* In 2014: 27.2%)

《KPI》 Aim to recognize 10,000 highly-skilled foreign professionals by the end of 2020 and further recognize 20,000 highly-skilled foreign professionals by the end of 2022.

=> A total of 6,669 foreign nationals have been recognized as highly-skilled foreign professionals by December 2016 since the introduction of the points system in May 2012.

(2) Specific measures to be newly taken

While the progress of the 4th Industrial Revolution, the source of competitiveness that creates added value shifts from "products" and "money" to "human resources" and "data". It is important to improve productivity by adopting the abilities and skills of each worker to changes in the industrial structure through investment in human resources.

It is necessary to consider efforts towards the future such as a lifelong active society, a super smart society (Society 5.0) where rich growth and healthy longevity are realized and each citizen can connect with society in various forms regardless of age, gender, etc., and can raise ability and income through the creation of services compatible to various needs of users due to the use of AI/IoT and creation of innovation as an opportunity for structural reform and to enhance the quality of human capital and raise potential growth.

The key to solving these problems is to raise the productivity of economic society through investment in the workforce and we should promote policy comprehensively.

To strengthen Japan's international competitiveness and realize sustainable economic growth

in the situation where the combination with IT progresses in all industries, it is necessary to train workforces who can demonstrate creativity and added value while making full use of IT and can further extend the strength of Japan. It is necessary to draft an "emergency plan for strengthening IT capability" and to fundamentally expand education and human resource development based on the following ideas:

- (i) Reconstruction of education and workforce development system including "life-long training of employed," corresponding to the 100-year life era.
- (ii) Focusing on individuals who learn and work.
- (iii) Prioritize "IT power" as the deciding factor of the competition in the 4th industrial revolution era.
- (iv) Integrate efforts of industry, government and academia in society all together to train practical abilities and skills that meet the future needs of the industry.

Furthermore, to make the expansion of education and human resource development effective, it is indispensable to realize the working style which draw out each worker's motivation and individuality contributing to the improvement of productivity and new value creation ability. In order to demonstrate the skills of workers effectively, it is required to clarify the content of duties and abilities, promote fair evaluation based on qualifications and establish the entire benefit system such as wage systems based on evaluation as soon as possible.

For foreigners, we will actively propagate positivity towards the acceptance of entrepreneurs and exceptional foreign talent. Also, we will make further improvements so that highly skilled foreign talent that intend to get employment and entrepreneurship outside of their own country will be attracted to Japan's living environment, wages and employment system of Japanese companies, entry and residency management systems, etc.

In addition, as the industrial structure rapidly changes due to the progress of the 4th Industrial Revolution, it is necessary for companies and individuals to respond flexibly and promptly. We will promote labor market reform to realize the "flow of people" to the industries with high productivity and growth potential.

Below are contents to be initiated urgently in the next 2 to 3 years.

i) Workforce development to improve ability and skills of individual workers and dramatic expansion of workforce investment.

① Establishment of a mechanism to grasp the supply and demand of IT labor and revision of IT skill standards corresponding to the 4th industrial revolution

- Clarifying the necessity and urgency of labor required under the 4th industrial revolution including security, data scientist, AI, IoT, etc., of the advanced IT fields. In doing so, Ministry of Economy, Trade and Industry, Ministry of Health, Labor and Welfare, Ministry of Education, Culture, Sports, Science and Technology will work together to establish a mechanism to grasp the supply and demand of the IT workforce as soon as possible.
- To clarify the abilities and skills required for the IT workforce, we will fundamentally revise the indicator (IT skill standards) that systemized and clarified the necessary practical ability for providing information services based on the prospect of workforce supply and demand. Also, we will formulate new skill standards focusing on the IT workforce capable of responding to new technologies and new development methods that are becoming mainstream as one of IT

skills during this fiscal year.

② Build a system in which industry, government and academia are coordinated to train practical abilities and skills

We will actively utilize internship in educational institutions to implement education aimed at nurturing skills to set issue and skills related to practical IT/data, etc. Also, we will promote efforts for workforce development by utilizing practical education coordinated by industry and academia including practical tasks the company faces at the site, a PBL method (Project Based Learning) that uses actual data on site, a contest format by combining two of them, etc. For this reason, while continuously grasping the needs of the industry, we will start to create university consultation bodies by university stakeholders aiming to share information at the practical level with the representatives of industry early this year. Moreover, we will advance efforts such as establishment and implementation of educational programs through industry-academia collaboration and industry-academia cooperation through vocational schools for regional industry core workforce development. Also, to make these efforts cross-functional, we will examine the "public and private consortium" by industrial and educational circles, and will establish it and start actions by the end of this fiscal year.

③ System reform and policy support for higher education institutions such as universities to become important players in "IT and data skill training"

- There is reform of the engineering education system necessary for workforce development based on information technology, which encourages industrial structure reform such as creating new industries including AI, IoT, Big data, etc. We will examine the way of concrete system reform for a fundamental review of vertical division structure of each department, education period flexibility such as bachelor/master degree 6-year consistent system, mastery of a secondary specialized field added to the main specialization, etc in this fiscal year. We will carry out from the next fiscal year and aim for full-scale implementation from fiscal 2019.
- We will develop a center to conduct university mathematics, data science education and information technology education that go beyond specialized fields without distinction of art or technology science. Also, we will promote the development of information technology labor such as information security in higher education institutions such as universities and vocational high schools.
- In order to promote these efforts, we will support the dispatch of teachers and support staff from the business world by cooperating with them and collaborative development of educational programs.
- In this year, we will construct a mechanism that can appropriately reflect the needs of the business world with the curriculum development of "new higher education institutions conducting practical vocational education."
- To utilize the characteristics and strengths of professional graduate schools, we will discuss the revision of the system that allows full-time faculty members of other courses to carry out an additional post and will review necessary items in the autumn of this year. By promoting the transition from existing management graduate schools to professional graduate schools and joint development of educational programs through collaboration with industry, we aim to

enhance and strengthen the training function of a global management talent who has an advanced expertise of enterprises and managers who are responsible for local industries.

- Regarding vocational high schools, we will enhance education including enabling educational curricula by cooperating with science and engineering universities. Also, we will promote the internationalization of teachers and students by sending them overseas and expanding the overseas educational system.

④ Drastic expansion of "IT/data skills" training in "Life-long relearning of the employed"

- Regarding the advanced levels of vocational training courses centering on IT / data fields provided by private business operators for business people, we will establish the 4th Industrial Revolution Skill Acquisition Course Certification System (tentative name) certified by the Minister of Economy, Trade and Industry during this fiscal year. Also we will consider developing this subject for professional, practical education and training benefits.
- To foster the IT workforce that contributes to improving the productivity of companies, we will implement comprehensive business owner support such as coordination of employees' training according to the needs of every business.
- Regardless of age and occupation, it is important for various human resources to acquire basic IT / data skills through various opportunities. We will take measures to support individuals in order to enrich "relearning" of motivated business people.

⑤ Creation of top talented personnel and the specialized workforce who lead the industry

- By discovering the unexplored IT workforce and utilizing the communities which are cultivated in the training business, we will create a workforce development program for commercialization and entrepreneurial support with one-on-one guidance by project managers who have a rich network. Through such efforts, we aim to produce 100 people who will lead to a future entrepreneurship with overflowing challenge spirits.
- We will publicly invite technical tasks to create destructive innovation and advance the "innovation with diverse talent" program to support research and development.
- Based on the "Cyber Security Human Resource Development Program" (determined by Cyber Security Strategy Headquarters on April 18, 2017), we will promote various workforce development measures. Such projects include the training of the core workforce in major infrastructure and industrial infrastructure, practical exercises for government/public agencies/major infrastructure operators, and discovery and development of young people while strengthening collaboration among measures.
- Regarding nurturing workforce who operates and manages networks that support IoT, we will clarify the skills necessary for the operation and management of network utilizing software, virtualization technology, etc., within this year. Also, we will set up and start a system that consistently authorizes practice and training to acquire skills.

⑥ Implementation of IT/data education such as programming in primary and secondary education

Without waiting for the full implementation of the new course of study in fiscal 2020, we will innovate digital teaching materials to make learning enjoyable according to the needs of the field, and will further develop education materials based on usage and evaluation of results in schools with the collaboration of the "Future Learning Consortium." Also, we will start making efforts for the cooperation of industrial fields and educational institutions to accumulate guidance examples, and will start full-scale deployment from the next fiscal year. In addition, towards the full implementation of the New Course of Study, we will undertake the dispatch of external workforces such as private companies to educational institutions from the perspective of building a support system for guidance on programming education at schools that collaborate with the private sector and securing training opportunities for teachers. In addition, towards the full implementation of the New Course of Study, we will undertake the dispatch of external workforces such as private companies to educational institutions from the perspective of building a support system for guidance on programming education at schools that collaborate with the private sector and securing training opportunities for teachers. Also, we will start making efforts for the cooperation of industrial fields and educational institutions to accumulate guidance examples, and will start full-scale deployment from the next fiscal year. Furthermore, we aim to increase the wireless LAN maintenance rate and super high-speed internet connection rate in conventional classrooms to 100% by 2020. From the viewpoint of accelerating improvements of the IT environment in schools, we will formulate policies for IT related equipment to be introduced at educational institutions while referring to exceptional advanced introductory classes during this year, and we will follow up the situation of each municipality. Also, we will support educational tools and materials that are used inside and outside the curriculum by promoting educational IT services utilizing EdTech and cloud technologies.

ii) Promotion of working methods leading to improvement of productivity and innovation ability

① Realization of a diversified and flexible way of working

- To maximize motivation and ability to achieve self-realization of autonomous individuals who do high creativity work while improving long-term labor and ensuring the health of workers, we will promptly establish legislation on amendment to the Labor Standards Law. This includes the creation of a highly professional system and review of the flexible work hour system for employees engaged in planning work at the national diet.
- To improve longer working hours, we will submit a bill to the National Assembly to revise the Labor Standards Act, which specifies the limit of overtime work with a penalty that cannot be exceeded even by the so-called 36 agreements.
- We will introduce the “same-duty same-wage” that aims to eliminate unreasonable treatment differences between so-called regular and non-regular employees in the same company/organization, so that employees can work with motivation having work performance and abilities are properly evaluated. To realize it, we will submit a bill to revise the Part-time Labor Law, Labor Contract Law and Worker Dispatch Law to the National Diet.
- While paying attention to ensuring the health of employees, we will promote the society that

allows people to obtain side jobs and concurrent business in principle.

- We will strengthen industrial physicians and occupational health functions to secure the health of employees. For this reason, we will revise the necessary laws and regulations.
- We will collect good examples of flexible working styles, which are becoming widespread, support development and dissemination regarding health management methods by utilizing the latest technology. We also consider new labor management indicators intending for future introduction.
- Regarding telecommuting jobs that enable the exercise of diverse workforces' abilities such as compatibility among child care, nursing care and work, creation of flow of people and work to rural areas, etc., we will revise the guidelines for dissemination while paying attention so as not to invite longer work hours. Related ministries and agencies will cooperate to develop a national campaign regarding this.
- Regarding "working styles regardless of employment status," we will study and implement support measures that enable employees to formulate careers and skills autonomously after grasping the actual conditions so that working style will be satisfactory patterns. Also, we will study on welfare matters. Through such efforts, we will establish other ways of working that workforces do not belong to companies/organizations as one of options.

② Increasing wages and improvement of labor productivity

We will increase the employee's total income by continuously raising the highest level of corporate earnings and increasing the labor distribution rate. Also, we will increase the minimum wage with a target annual rate of about 3% while paying attention to the growth rate of nominal GDP and aim for a nationwide weighted average to be 1,000 yen. Toward the environment that is easy to improve, we will support for increasing productivity by the Management Reinforcement Law of small business and improvement of business conditions of small businesses such as subcontracting. Also, we will provide support for improving wages and productivity by promoting capital investment that will help improve labor productivity of enterprises while cooperating with financial institutions. To improve management abilities and profit necessary for increasing wages, we will establish a framework for support such as seminars and individual consultations. We will especially prioritize life and health related businesses such as the food and beverage industry, and expand to other industries.

③ Realization of diversity as a management strategy

To encourage the practice of diversity management leading to medium and long-term corporate value improvement, we will introduce a new mechanism to honor companies that have produced results in ongoing diversity management efforts based on the "Diversity 2.0 Action Guidelines" formulated last year (Formulated by the Diversity 2.0 Review Committee on March 2017).

④ Further promotion of female success

Based on the "Child-rearing Safety Plan," while ensuring stable financial resources, we will support efforts to eliminate children who are on a waiting list to enter nursery centers. We will work towards further promotion of female employment, based on "Priority Policy for Accelerating Female Employee Activities 2017" (Decision by All Women's Shining Society Building Headquarters on June. 6, 2017). In doing so, we will promote necessary measures such as promotion of female workforce in the labor market and the capital market through thorough "visualization" of female success information. Also includes working styles to contribute to women's success, innovation of men's way of living and consciousness, eradicating violence against women, efforts to eliminate children who are on a waiting list to enter nursery institutions. As we focus on young people and parenting households, we will consider and proceed with the reform of personal income tax in the overall taxation system and the appropriate way to impose taxes carefully.

⑤ Support for youth and the generations that experienced the severe employment era

We will provide assistance to students for occupational awareness from the early stage of their student life and improve the environment that they can easily research about industries or companies. Also, we will provide comprehensive support so that young people including the generations that experienced the severe employment era can maximize their abilities.

⑥ Promotion of employment of people with disabilities

- We will carry out efforts for employment support adopting hope and ability of persons with disabilities through increase of the statutory employment rate in April next year, training enhancements to give knowledge on employment of persons with disabilities. The efforts will be carried out through enhancement of learning through lifelong such as career education, promotion of cooperation among related organizations as well. In addition, we will promote the use of the latest technologies for prosthetic devices and employment support for persons with disabilities through collaboration of agriculture and welfare.
- We will promote initiatives such as employment reform awareness of a director of a company and establishment of a triangle type support system for balancing treatments and work so that those with diseases such as cancer will be able to work according to their treatment situation.

iii) Labor market reform to realize "flow of people" to industries with high productivity and high growth potential

① Promotion of "visualization" in the labor market

For the expansion of career change and re-employment, we will establish a site (O - NET in Japan) that provides all-inclusive occupational information and allows one-stop viewing of workplace information of companies that women and young people can work easily. This site will also promote visualization of vocational abilities and workplace information by utilizing of jobs and cards. In addition, we will promote efforts to "visualize" advanced skills so that skilled technicians in the manufacturing field who produce high added value will be evaluated.

② **Promotion of employment and career change among middle-aged and elderly people**

We will promote employment and career change for middle-aged and seniors with efforts such as formulation of guidelines for promoting acceptance of workers changing jobs regardless of age, strengthen re-employment support for seniors by Hello Work special front desk, gradual establishment of the environment which accelerates labor shifting such as side work or concurrent work. We will take measures to improve the environment that can make full use of experience and others cultivated by middle-aged and seniors. Also, we will take measures in the total package including improvement of career education for workers, thorough career interviews for experienced, middle-aged employees on the side of companies that transfer their employees to other companies, acquiring knowledge to promote the success of external middle-aged experienced employees on the side of companies that accept the workforce, sharing job placement and recruitment information in the labor market, etc.

③ **Construction of a dispute resolution system with high predictability**

Regarding the way of a highly predictable labor dispute settlement system including a financial relief system at the time of nullity of dismissal, we will take necessary institutional measures based on the results of examination of the "Review Conference on Transparent and Fair Labor Dispute Resolution System etc." established based on "Revival Strategy for Japan" revised in 2015 (decided by the Cabinet on June 30, 2015) after deliberation by the Labor Policy Council.

iv) Utilization of foreign human resources

To overcome the fierce global competition in the 4th industrial revolution, the Government will positively accept excellent foreign professionals such as researchers and engineers with advanced knowledge and skills, who have growing demand from wide industries with the evolution and deepening of information technology, thereby accelerates innovation and improves the productivity of the entire Japanese economy..

To this end, in the intensifying global competition for acquisition of professionals, the Government will issue constructive messages to accept entrepreneurs and highly-skilled foreign professionals, while further improving the living environment of Japan, wages and employment personnel systems, as well as immigration and residence control systems so that these are made attractive for highly-skilled foreign professionals who are pursuing employment outside their countries, and create a strategic mechanism whereby those professionals can actively work over a long period of time in Japan..

① **Further attraction of highly-skilled foreign professionals**

It is indispensable that the Government actively accepts highly-skilled foreign professionals with diverse knowledge for promotion of the fourth industrial revolution and creation of innovation. For this reason, the Government has been working on the creation of "Japanese-version green card system for highly-skilled foreign professionals", which is the fastest such system in the world and substantially reduces the period of stay required before highly-skilled foreign professionals can apply for permanent residence from five years to the shortest one year. The Government has been also working on revising requirements with intent of making Points-based System for highly-skilled foreign professionals more user-friendly, adding

foreign human resources who have made significant investment or have made a major contribution to Japan in growth fields such as IoT, and regenerative medicine to "Guidelines on Contribution to Japan." As a result, the immigration system for highly-skilled foreign professionals in Japan is becoming internationally "very open." For the further attraction of entrepreneurs and highly-skilled foreign professionals, under the slogan of "Open for Professionals", the Government will work on publicizing Japan's immigration system including "Highly-Skilled Foreign Professionals Fast Track" that applications for certificates of eligibility of highly-skilled foreign professionals to be judged within 10 working days in principle, and interpretation of "contract with public and private organization in Japan" relating to the status of residence for foreign researchers, engineers, etc., who visit Japan on a business trip, actively, domestically and internationally in cooperation with overseas diplomatic missions, Japan External Trade Organization (JETRO), etc., including high-level persons, as well as situation of the living and working environment for foreigners. In addition, the Government will begin examining the way of matching support overseas utilizing job offer information for working in Japan in order to positively secure highly-skilled IT professionals, which leads to corporate innovation.

② Improvement of the living environment

The Government will provide a comprehensive lecture on the Japanese language and other subjects (JSL- Japanese as a Second Language curriculum) as soon as possible to all foreign children (elementary and junior high school students) in need. Also, the Government will accelerate the enhancement of Japanese language education for foreigners living in Japan. In addition, through supports such as arrangement of medical interpretation, the Government aim to establish the "medical institution with a system for accepting foreign patients" including reception duties at 100 locations during the current fiscal year, which was originally planned to achieve by 2020. In addition to these core medical institutions, the Government will start expanding the foundation of the acceptance system of foreign patients while taking into consideration the actual circumstances of the region, and aiming for further enhancement of the acceptance environment. The Government will also provide easy-to-understand information on locations that can handle foreign.

③ Improvement of the working environment

To promote the implementation of diversity management including utilization of foreign human resources, the Government will implement dissemination and awareness-raising activities aiming to rally operating companies which utilize foreigners through awards from advanced companies based on the "Diversity 2.0 Action Guidelines". Through such efforts, the Government will encourage the development of the working environment including the establishment of comprehensive strategy on foreigners' assessment, clarification of human resource management including foreigners and job descriptions, fair evaluation mechanism, and introduction of environments that non-Japanese speakers can perform their talents, to actively accept highly-skilled foreign professionals.

④ Support for employment of International Students

Under an initiative, "Innovative Asia," to enhance the cultivation and circulation of

highly-skilled foreign human resources between Japan and Asian countries through ODA and other measures, the Government will provide students with opportunities for study in Science and Technology, and Engineering at graduate schools and research institutes, etc. as well as for internship at companies, etc. in Japan, aiming at receiving 1,000 competent students graduated from Asia's top-level universities over the 5 years from FY2017 to FY2021. Also, to improve the employment rate of international students in Japan, 12 domestic universities will be holding an "International Student Employment Promotion Program" that includes business Japanese education, career education, medium to long term internship, etc., for international students from this year. Also, regarding international students in vocational schools, the Government support their employment to domestic companies through the vocational school globalization promotion support project. In addition, the Government will promote employment of international students through implementation of consultation on employment management, support for summer jobs, etc., for companies that are considering recruiting international students and students abroad at foreign employment service centers.

⑤ Promotion of acceptance of foreign employees in Japanese companies that develop globally

In the retail industry, the Government will realize short-term transfer within the company group, acquisition of skills, etc., under the Minister having jurisdiction over the business in question. To do so, the Government will conduct a concrete institutional design for the system referring to the structure of "Foreign Employee Acceptance Program for Manufacturing Industry" starting during this fiscal year. The Government will also continue to examine the possibility and necessity of institution construction with reference to the above mechanism for areas that contribute to the growth of the Japanese economy other than manufacturing and retailing industries.

⑥ Utilization of foreign human resources in the field of construction and shipbuilding

In order to respond to the temporary increase in construction demands due to the development of facilities related to the Tokyo Olympic Games and the Paralympic Games in 2020, Foreign Construction Worker Acceptance Program is designed to accept readily available foreign workforce as a fixed-term and urgent measure (ending in FY2020). Under the existing system, there is a risk that the number of foreign workers will decrease as they enter the country to be the Foreign Construction Worker after the next fiscal year, where related construction demand is expected to be continued. The Government will review the operation to further enhance the construction system to ensure the purpose of the program that the Games will be successful. In addition, since the same program has been implemented for the shipbuilding industry, which has a large mutual mobility of workforce with the construction industry, the Government will also review the application in shipbuilding field in the same way.

⑦ Strengthening residence control infrastructure for facilitating / expediting of procedures for the status of residence

The Government will proceed with required preparations to ensure facilitation / expediting of procedures for the status of residence, including the introduction of online procedures from FY2018 in order to further accept foreign human resources..

Toward strengthening residence control infrastructure, based on the principle of simplifying administrative procedures, the Government will consider measures to accurately and quickly comprehend the working status of foreign nationals, such as an appropriate way to utilize various identification numbers.

⑧ Consideration on approaches to accept foreign human resources

To ensure sustainability of economic and social infrastructure, the Government will advance comprehensive and detailed study on approaches to accept foreign human resources while focusing on the field where they are truly required. To this end, the Government will conduct cross-governmental surveys and considerations regarding essential issues including a mechanism that would not be misconstrued as an immigration policy and the way to shape the national consensus..

4. A virtuous cycle system that creates innovation and ventures

(1) Main progress status of KPI

《KPI》 We aim to increase investment by 3 times from enterprises to universities and national research and development corporations by 2025.

=> In 2015: 120.9 billion yen

《KPI》 The R & D investment of public and private sectors should be at least 4% of GDP by 2020.

=> In 2015: 3.56%

《KPI》 We will double the GDP ratio of VC investments to venture companies by 2022.

=> For 3 years from 2013 to 2015: 0.029%

(2) Specific measures to be newly taken

While changing from a capital-intensive economy to a knowledge-intensive economy, the role that co-creates the future image that Japan should be in industry-government-academia and maximize the power of universities and national R&D corporations that are bases of knowledge and workforce that are increasing as a core.

The establishment of the national innovation system was done by university reform and reform of the National Research and Development Corporation. In the future, it is necessary to construct an ecosystem of innovation and venture through a virtuous circle in which the accomplishments of innovation are invested to the next stage.

Therefore, concerning the goal of research and development investment, we aim to make R&D investment combined with public and private sectors equal to or more than 4% of GDP. Also regarding government R&D investment, we intend to make it 1% of GDP ratio while ensuring consistency with "economic and fiscal revival plan." When the nominal growth rate of GDP during the period is calculated based on the economic revival case of "Estimate on Medium to Long-Term Economic Fiscal", the total amount of government R&D investment required is about 26 trillion yen. This is for the investment during the period of the "Fifth Science and Technology Basic Plan" (Decided by the Cabinet on January 22. Also, by 2025, we aim to make corporate investment amount to universities, research and development corporations etc. triple the 2014 level. For this reason, it is essential to strengthen and utilize the excellent basic research capabilities possessed by universities, to fundamentally enhance the industry-academia-government collaboration structure in universities and other countries, to concentrate resources on active domains, to voluntarily and continuously create ventures, to incorporate new technologies such as AI into society. We will promote the "Public-Private Investment Expansion Initiative of STI" (formulated by the Economic and Social Science and Technology Innovation Committee on December 21, 2016). We will take the following measures to realize these:

i) Drastic reinforcement of university incentive design

- To strengthen the innovation capability of the university, it is necessary to further promote

conversion to management that can acquire self-income by attracting investors while evaluating the efforts of universities including industry-academia collaboration and making the result "visible." It is important to accelerate the acquisition of diversified resources that can be utilized for independent management, to construct a mechanism of virtuous cycle in which universities reinvest their funds and enhance their education and research activities, and create further innovation. For this reason, we evaluate the results of activities based on the quantitative KPI set by each university, which we intend to carry out in earnest of next year. We will strengthen to notify the evaluation results widely so that the investment gathers against the ongoing efforts of the university concerning the rule reflecting the result in the priority distribution of national university corporation operating cost grants. Also, we will inform the good practices through evaluating university efforts such as personnel system reform in which faculty and staff engaged in collaborative research are appropriately evaluated and supported regarding benefits and the environment, and promote excellent efforts.

- Regarding the national measures taken by the industry-academia-government collaboration, we will add investment inducement effect of the industry to examination requirement at task selection to encourage investment in universities. In the evaluation items of the adoption selection, we will add the correspondence status of "Guidelines for strengthening collaborative research through collaboration between industry-academia-government" (formulated at the industry-academia-government dialogue meeting promoting innovation on November 30, 2016) from this fiscal year.
- We will develop data, which is comparable and evaluate the university's industry-academia collaboration efforts annually from this fiscal year. Based on this data, the industry estimates the efforts of each university so that promising universities can be chosen as collaborators of collaborative research.
- We will commence the designated national university corporation system, which requires full-scale implementation of collaboration system of industry, academia, and government. Also, we will accelerate the instantiation of the ideas of each university during this fiscal year regarding the outstanding graduate school program (tentative name) that provides state-of-the-art education in areas where interdisciplinary fields and Japan is superior to. We aim for full-scale implementation in the next fiscal year and will summarize concrete proposals such as examination by cooperating with companies and others.

ii) Focused investment to the field, in which Japan is superior

- Based on "Promotion of Society 5.0 and Achieving Government R&D Investment Goals" (Decision of the General Science and Technology · Innovation Council on April 21, 2017), we will aim for 1% of GDP regarding the government R&D investment while maintaining consistency with "Economic and Financial Reconstruction Plan." Also, we intend to make private enterprise R&D investment 3% of GDP by stimulating private R&D investment that is by "Science and Technology Innovation Public Investment Expansion Initiative." By doing so, we aim to make R & D investment in public and private sectors more than 4% of GDP.
- In "Public-Private Investment Expansion Initiative of STI" we will guide each ministry's measures toward areas which promote private R&D capital by "Public/Private R&D Investment Strategic Expansion Program (tentative name)" that will be funded in the next fiscal year.

- We will gather top domestic and international researchers under the excellent management of the head of the organization toward the “Center of Excellence of the world.” We will mainly distribute resources focusing on a small number of bases to create innovation in collaboration with industries including venture, research centers of the world's top universities and R&D corporations during the next fiscal year. In addition, after verifying the current efforts, we will consider the establishment of bases in fields that can aim for the world's top class in the future. Moreover, we will examine current efforts and consider organizing bases in industries that can aim for the world's top in the future.
- We are considering strengthening an internationally-dominant, academic information communication base that includes a supercomputer capable of accelerating AI development and big data processing. We also make it possible to utilize companies and others working on collaborative research beside universities.
- While strengthening the control function of AI, we aim for incorporation into society concerning various fields such as Productivity, Health, Medical care, Nursing care and Space Movement by collaborating with industry-academia-government based on "Research Objectives and Industrialization Roadmap of Artificial Intelligence" (Summarized at Artificial Intelligence Technology Strategy Conference on March 31, 2017). We will undertake research and development project by open innovation during this fiscal year. We will also accelerate the development of core technologies such as semiconductors and innovative sensors that contribute to improve AI learning efficiency, natural language processing, deep learning translation, ultrahigh efficiency AI processing, and its application to embedded systems.
- From the viewpoint of encouraging AI development and incorporation into society, related administrative organs will collaborate with each other on basic principles that developers should pay attention to while considering the discussion of domestic and overseas private sector.

iii) Acceptance of investment by universities and promotion of self-acquired funds

- With strong authority under top management, we will organize excellent researchers beyond the department, build a new system in the next fiscal year to centralize management of industry-academia-government collaboration with specialized human resources such as commercialization and intellectual property. Also, to support regional universities, we will examine to adopt the horizontal expansion of contract and marketing know-how of excellent technology transfer agencies in 5 locations throughout the next fiscal year.
- We will carry out strategic renovation of facilities to improve the attractiveness of university-owned assets and for more effective utilization. In addition, to disseminate new use models of assets such as lands at universities throughout the country, we will formulate a review policy of the system that does not meet the modern era during this fiscal year. Also, to initiate the donation of land and stocks to universities, we will examine concrete measures and systems based on the results of grasping the actual acceptance situation during this year.
- In the case that universities support ventures at the early time of this fiscal year, we allow to acquire the stock acquisition right even as a consulting fee and facility usage fee, and shares acquired by exercising the stock acquisition rights over a period of time after the public disclosure.

iv) Promotion of R&D by maximizing the resources of industry, academia and government

- We will systematically develop data to evaluate and analyze the effect of science and technology innovation measures and establish PDCA cycle of policy based on objective grounds.
 - We aim for further expansion of publicly offered research funding including competitive funds while trying to secure fundamental expenses such as operating expense subsidies. Also, regarding the way of thinking on indirect expenses and restriction on qualification requirements relating to research fraud, we will realize more effective and efficient budget execution by unified operation among related ministries. Also, we will promote cooperation between publicly-offered supplementary projects and efforts in reform of universities and national R&D corporations.
 - To strengthen the satisfactory and stability of the Scientific Research Funding Program (KAKENHI) we will promote reforms through implementation of "Scientific Research and Examination System Reform 2018" and "Science Grant Young Assistance Plan" based on "Implementation Policy of Science and Research Expenses Reform" (revised by the Ministry of Education, Culture, Sports, Science and Technology on January 27, 2017) from this fiscal year.
 - We will secure a stable and independent research environment for young researchers by promoting outstanding researcher systems so that aspiring talent can aim to become researchers. We will also build measures to accelerate the development of superior workforce development and human resources system reforms at universities and others during next fiscal year.
 - We will study about new research support methods that attract private R&D investors such as competition for research subjects cooperated by public and private sectors, award-style system, etc., and we will draw conclusions during this fiscal year.
 - We will implement reform in support of concept proof using fundamental research and its results and measures to induce private investment continuously in the future from the next fiscal year.
 - We will set up a council to establish autonomous communities where workforce who is responsible for matching business at industry-government can cooperate freely across businesses and organizations from this fiscal year.
 - We will promote and build a shared network of research facilities and advanced synchrotron radiation facilities that support industry-academia-government collaboration, and we will develop shared systems within research organizations striving for 70 organizations by the end of the next fiscal year. Also, we will also proceed with the development of data collection and analysis methods, etc., aiming for the construction and utilization of databases and analytical tools that contribute to the R&D of materials that are available for industry, academia and government from the current fiscal year.
 - We will establish a team that produces business based on distinctive technologies of regional universities. We will promote strengthening an intellectual property strategy and optimal technology transfer, and try to form a regional innovation ecosystem.
- v) **Training and attracting innovators that can outperform against the world**
- We will cooperate with industry, academia, and government to expand overseas including dispatching students to Silicon Valley, Asia, etc. Through network formation with entrepreneurs, we will start to provide consistent support for university students and unexplored IT workforces who have original ideas during the next fiscal year. In addition, we will proceed with "innovation with diverse talent" program to uncover creative ICT technical issues.
 - In the field of digital science, we will form a consortium to promote acceptance of young

researchers between Japan and the United States during this fiscal year.

- Utilization of highly-skilled foreign professionals • In order for the further attraction of highly-skilled foreign professionals, the Government will actively publicize information that the living and working environment of foreigners has been improving, and the immigration system for highly-skilled foreign professionals is becoming very open, while cooperating with overseas diplomatic missions, JETRO, etc.

vi) Acceleration of voluntary and continuous creation of venture

- We will consider strengthening fund functions to create innovation such as M&A of ventures by large enterprises.
- In order to further increase innovation development results of national research and development agencies, we will consider the way of further utilizing their investment businesses after paying attention to ensure sound operations and finances. We will draw conclusions during this fiscal year.
- We will build 300 databases of researchers in universities and technical seeds that will contribute to joint research and investment of companies and investors during this fiscal year, and will release them domestically and abroad. In addition, we will inform the problem-solving measures related to collaboration between ventures and venture capital firms, companies, investment companies, etc. Also, we will support the growth of venture companies by dispatching mentors for strengthening entrepreneur support functions of municipality, regional industries, and financial institutions. Furthermore, we will carry out matching with companies that are equipped with necessary production facilities during the next fiscal year to support the practical application of technology of R&D venture material at early stages.
- In order to make use of patents in flexible collaborative research and lead to creation of venture, we will build a model to be owned independently by universities during this fiscal year.
- To promote investments by institutional venture capital investors and improve the investment environment, we will develop intellectual infrastructure such as guidelines on funds market value evaluation and investment model contracts, and we will start the demonstration during this fiscal year.
- We will examine how to revitalize social ventures, which are aiming to build social businesses and promoting effective utilization.
- We will start trial efforts to promote the utilization of R&D oriented SMEs and ventures in government procurement focus on national technical demands in this fiscal year. Also, in the research and development of core technologies such as space, ocean, disaster prevention, etc., we will set the technical area to actively utilize external technologies such as venture during this fiscal year.
- By collaborating with corporate information, we will start trial operation of the one-stop application system by sharing the application form of government support measures and bringing it online during this fiscal year. We will also arrange the tasks for full-scale operation given development to other procedures.

B. Mechanism to boost maximization of value

1. Establishment of "sandbox" regulation system

(1) Specific measures to be newly taken

By ensuring the opportunity to demonstrate boldly the accomplishments of innovation such as AI · Big Data · Dispersion ledger technology · Automated flight · Automated drive which has been developing rapidly, we need to revitalize the economy to arouse innovation for new products and services.

For this reason, we will establish a "sandbox" regulation system consisting of two approaches as a mechanism to promote innovation through concrete social actual proof.

First of all, as an effort on a project basis, we will establish the new framework that allows to try first as a fundamental idea that is not bound by the existing framework.

Secondly, in the National Special Strategy Zone, we will establish a framework to promptly and smoothly carry out demonstration experiments by drastic review of prior regulation and procedures.

i) Establishment of the sandbox regulation by each project

- In order to link the results of innovation to the creation of new added value, it is indispensable to accumulate the social demonstration for trials. Unless the social demonstration for trials is done, it is not possible to acquire necessary data, and the reality is in a vicious circle that we cannot sufficiently prove to the regulatory authorities the specific needs of success methods to follow. Because such innovation progresses at an unexpected speed, there is concern that traditional policy methods are soon left far behind internationally. Regarding the "sandbox" regulation system that encourages the development of business models by trial and error on the premise of participation by explaining participants and periods and explaining the details of risks and explaining the participation, necessary legal measures.
- Implementing such efforts, we should establish effective system of coordination with affiliated ministries and build a unified system to strongly promote growth strategy by social implementation of innovation cross-government.
- To response flexibility for promoting actual proofs, considering those dates are valuable even if actual proofs don't work well, preserving dates from result of actual proof are important. Hands-on support should be carried out carefully, and the results of demonstration will be put to the subsequent development of rules and policy making.
- Departments in charge of each ministry and agency shall be different departments from the regulatory execution department and shall be the top department that is responsible for promotion from the perspective of promoting innovation.
- Reviewing about it as soon as possible within the year, and based on the result, taking necessary actions such as submitting the related proposed measures by the next ordinary diet session.

ii) Efforts to promote demonstration of near-future technology such as automatic traveling and small unmanned aircraft in national strategic special zones

- To vigorously carry out demonstration experiments of near-future technologies such as automatic traveling, small unmanned aircraft (drone) etc. further promptly and smoothly in the National Strategy Special Zone, we will quickly realize the creation of a regulatory sandbox

system to fundamentally review relevant preliminary regulations and procedures.

- Keeping basic idea of i), we develop "post-revise rules" such as information disclosure, third party / expert monitoring, evaluation, dispute settlement system in National Strategic Economic Zone. As a result, the preliminary regulation and procedures related to existing laws and regulations can be eliminated or reduced to the minimum.
- We will consider and take necessary actions based on the results within 1 year after enacted the revision bill of the National Strategic Economic Zone Law, currently being submitted to the National Assembly.

(Detailed in "5. Bold Regulatory Reform by the National automated drive Special Zone".)

2. Regulatory reform, Simplified administrative procedures, Integrated promotion of IT

(1) Main progress status of KPI

《KPI》 Japan will be marked in the third rank for bank's business environment ranking in the developed country of the world by 2020.

=> It is marked 26th in October 2016 (2 rank down compared to the previous year)

《KPI》 It is aiming to reduce administrative procedure cost¹ of priority fields more than 20% by March 2020.

* KPI that we will freshly set up this time

(Along to ¹ "Administrative Procedure Subcommittee Summary - Toward Reduction of Administrative Procedure Costs"), we will reduce 9 importance areas depending on matters, up to March 2022. However, regarding "national tax" and "local tax" On the premise of realization of electronic filing obligation realization, separate numerical targets such as electronic filing utilization rate of large corporation such as 100% are set, and "cooperation on survey and statistics" responds based on statistical reform basic policy etc. The same below)

(2) Specific measures to be newly taken

Until now, the government has developed e-Gov, the governments' portal site, and has continued to make individual regulatory reforms and administrative procedures simpler. Based on "Japan revitalization strategy 2016", we made "Review of regulatory and administrative procedures Working group summary" (April 24, 2017, Foreign Investment Promotion Conference Regulatory and Administrative Procedures Review Working Group) and took necessary measures, such as improving procedures and payment of establishing contributions. From the perspective of "innovation of administrative procedures in line with technological innovation" and "deduplication of administrative procedures" of domestic corporation's point of view, we enacted for prior efforts such as smart security at Future Investment Conference Structural Reform Promotion Meeting and started working with it. Furthermore, to drastically improve the burden on business co-operators, we took a big step to aim for reducing the administrative procedure cost of businesses by over 20% by March of 2020 along with "Administrative Procedure Group Subcommittee - For Reduction of Administrative Procedure Costs".

In the future, while fully respecting the purpose of regulation, it is necessary we will make a big change of the angle and working to improve user friendliness using the newest IT technology, new systems like co-operate number and my number.

Specifically, looking at the circumstances of other countries, we will not only simply replace the current procedure to online procedures, but in all areas, communize same purpose or same contents of documents to same style of forms, and we will review the principle of transverse slope for not to ask again (one-only) information that once submitted with the government information sharing. Furthermore, we plan to unify the electronic procedures (make it one stop) in the establishment of a corporation that requires similar document procedures for multiple institutions, payment of social insurance fees etc. In taxation procedures, information coordination between the national government and local governments is thoroughly conducted

through the electronic filing. Also reforming administrative procedures in line with technological innovations such as big data and AI, and building efficient and effective institutions and procedures for both of both business side and administrative side. Regarding issues necessary for improving the business environment in Japan and methods for solving it, we will consider from the view point that why we are not able to do it in Japan but foreign countries are able to do. We are aiming to make realizing "The best country in the world where companies are easy to move into action" through the regulation reform as the company's side, the simplification of the administrative procedure, integral promotion of the introduction of IT.

i) Reducing administrative procedures costs thoroughly the government

- Along with "Administrative Procedure Subcommittee Summary", each ministry and agencies aims to reduce 20% of the administrative procedure cost of businesses with business viewpoint by March 2020. However, regarding "national tax" and "local tax" On the premise of realization of electronic filing obligation realization, separate numerical targets such as electronic filing utilization rate of large corporation such as 100% are set, and "cooperation on survey and statistics" responds based on statistical reform basic policy etc. Each ministry and agency will formulate a basic plan by the end of June this year and promptly start possible items. It will revise the basic plan based on the opinion of the Administrative Procedure Subcommittee of the Regulatory Reform Promotion Committee and progress after formulated of the basic plan by next March. Regarding the progress situation, the Administrative Procedure Subcommittee on Regulatory Reform Promotion will follow up.
- Each ministry and agency will make plans for promoting medium and long term e-administration including the on-line administrative procedures based on the "Digital Government Promotion Policy" (May 30, 2017 IT Strategy Headquarters · Strategy Committee for Promotion of Utilization of Public-Private Data) and the cross-governmental implementation plan formulated this year by the first half of next year. In doing so, consider the priority areas determined by the Regulatory Reform Promotion Committee Administrative Procedure Subcommittee. In addition, it should show the direction of response to cross-section themes like information sharing among government agencies collaborating between each office system and corporate information.
- The fields which are high demands of citizens and business operators, and are expected to have an early effect will be set as priority within this year. Implementing BPR as priority, it will expand the results laterally and extend to other fields. In addition, as promoting IT and BPR for local governments, working on communize and standardize operations, and expanding the municipalities to introduce cloud system (1000 groups), and aiming to reduce information system operation cost (30% reduction) by the end of this fiscal year.

ii) Providing public services in the digital era

- Based on the My Number Card Utilization Promotion Road Map compiled in March this year, it promote expanding usage of range of my number card such as increasing convenience of minor portals by API cooperation etc., diversify access methods such as utilization of smartphone, introduction of regional economic support points by utilizing Mikey platform, introduction of tickets Promotion of private certification in cooperation with public personal certification, promotion of the addition of her name to the face of the voucher and work infrastructure

development.

- Regarding to the establishment of a corporation, we make it possible for users to process all procedures online with one-stop. Therefore, making to complete all related procedures a through on-line, considering from the comprehensive point of view of institutional and technical aspects, including the way of confirmation before the constitution certification, seal impression notification, external cooperation API etc. The public and private sectors began to undertake full-scale examination, including utilization of private cloud services using external cooperation API and acquire the result by this year.
- Regarding general trade procedures, concerning overall optimization to realize shortening of cargo detention time, public and private consultation bodies to be examined from a comprehensive viewpoint such as institutional and technical aspects by government offices and private businesses gathered together, it will launch it by this summer and start discussing promptly and get a conclusion during this fiscal year.
- In order to implement a prompt and efficient trial with considering other countries circumstances, from the comprehensive viewpoints including security procedure and security information in the court, and we consider measures to promote IT in procedures for trials with user's point of view, getting support of related organizations, and will conclude by the end of the current fiscal year.

iii) Innovation of administrative procedures in line with technological innovation

- We will start operating a one-stop application system (venture support platform) that can speedily utilize government support measures by thinking in an entrepreneurial perspective from this fiscal year. We also examine the one-only function of corporate basic information through collaboration with corporate information and development to subsidies for small and medium-sized enterprises, and acquire the certain direction about it during the current fiscal year.
- For block chain technology, it will start anticipating of the advance introduction for government information system in areas such as prefectural procurement and application procedures. For those, we will consider issues related to operation and rules for realization to promote utilize the system related to the electronic power of authorization letter, to construct a system of distributed authentication of individual devices, to secure the authenticity of the data recorded in the block chain and public personal authentication and to promote the efficiency improvement of procedures using smart contracts. Based on the result, for those operational reforms with the newest technology we will formulate it realization of innovative electronic administration that improves efficiency and convenience by the next fiscal year.
- About chemical substance examination, in order to reduce the burden required for the tests by business operators, we are starting AI analysis of data which has been applied in this fiscal year and aiming to eliminate screening tests related to animal experiments. And also, aiming to operate a new system that leads to reduce of the burden of business operators and to be faster and more efficient application processing in FY 2019.
- To implement steadily “Super Certified Offices” following high pressure gas security law to allow regulatory incentives for business operators such as monitoring constantly using IoT · big data etc.. Also, in order to rationalize costs and digitization of information for both the public and private sectors, it will work simplifying and IT conversion of the 250,000 amounts of

applications every year handling as paper documents , aiming to start using electronic application system within FY 2019.

- We will try to improve the business environment where private-sector companies with financial and technical capabilities of mining sector such as petroleum and natural gas are easier to participate through simplification of administrative procedures and promotion of data utilization with mining area's information by procedure's digitization for registering mining rights based on the Mining Act. We are aiming to start the system operation in fiscal year of 2019.
- We aim to improve 20% of the productivity in the construction site by 2025 with promoting i-Construction to fully utilize ICT etc. in the construction process from survey and measurement to design, construction and inspection, maintenance and renew, and shortened the inspection days of construction work to 1/5 using State-of-the-art technology, and reducing inspection documents to 1/50.

3. Corporate governance reform from “form” to “substance” and metabolism of industry

(1) Main progress status of KPI

《KPI》 As for the ROA of large enterprises (TOPIX 500), we aim to reach a level comparable with U.S. and European companies by 2025.

* KPI that we will newly set up this time

(2) Specific measures to be newly taken

i) Promotion of measures to improve corporate value over the medium to long term

Due to the continuous efforts up to today, there has been steady progress in corporate governance reform such as changes in compositions of boards of directors, investors’ proactive attitudes toward dialogue with companies, and movements toward reducing cross-shareholdings.

However, compared to U.S. and European companies, Japanese companies have not reviewed their business portfolios enough and still have room for improvement in terms of profitability. In order for companies to improve their "earning power" and realize sustainable growth in the business environment, which is rapidly altered by phenomena such as the rapid progress of the 4th Industrial Revolution, company managements need to proactively take risks and carry out reforms aimed at increasing mid- and long-term values of their companies such as investment for strengthening brand value, human resources, and research and development capability, and as business restructuring. Such efforts shall be taken under the proper supervision by boards of directors and other organizations and through "constructive dialogue" with investors that is based on mid- to long-term perspective.

Therefore, we will encourage companies and investors to improve corporate value over the mid- and long-term by deepening our efforts aimed at effective corporate governance reform and by carrying out regulatory reforms to accelerate decisive business restructuring.

① Improve corporate value through corporate governance reform

In order to further advance corporate governance reform by improving effectiveness of “constructive dialogue” between companies and institutional investors based on mid- and long-term perspective, we revised the Japan’s Stewardship Code this year. In the revised code, we clarify the roles of asset owners such as pension funds and require investment management companies to strengthen their governance and conflict of interest management.

In order to deepen corporate governance reform, which is one of the top agenda of Abenomics, and move its focus from "form" to "substance", we will continue to encourage companies and institutional investors to leverage efforts including ones listed below, through considerations and discussions at the "Council of Experts concerning the Follow-Up of Japan’s Stewardship Code and Japan’s Corporate Governance Code".

- Effective stewardship activities by institutional investors such as enhancing governance and conflict of interest management, enhancing disclosure of results of voting executions, self-assessment, monitoring of investment management companies, and high-value-added dialogue that gives companies “awareness”.
- Efforts by listed companies such as provision of information beneficial for constructive dialogue with investors such as management policies and strategies including their basic capital policies and business condition and as more effective dialogue.
- Appointment/dismissal of CEOs in an objective, timely and transparent manner, organization of

boards of directors with necessary qualities and diversity, management of boards of directors with more focus on strategies, and proper evaluation for these efforts.

- Easy-to-understand disclosure of policies on shareholdings and reduction of shareholdings in cases companies keep them without reasonable motivations..

From the standpoint of increasing international understanding of the efforts for corporate governance in Japan, we will transmit information on these efforts overseas in a timely and effective manner.

② Enhance management system and promote mid- to long-term investment

- While disseminating "Practical Guidelines for Corporate Governance Systems" (CGS guidelines) (formulated by the Ministry of Economy, Trade and Industry, March 31, 2017), we will analyze and publish the status of utilization of nomination and remuneration committees in companies, the status of recruiting of former managements as outside directors the status of introduction and disclosure of incentive remuneration, etc. during this fiscal year.
- In Japan, even after presidents and CEOs retire from boards of directors, they conventionally continue to play certain roles such as engaging in external activities and giving guidance and advice to their companies as counselors or advisers in their companies. From the viewpoint of improving transparency regarding corporate governance, we will create a system to disclose name, position/status, responsibilities etc. of retired presidents/CEOs who continue to play roles as counselors, consultants, etc. in their own companies at the Tokyo Stock Exchange Co., Ltd. around this summer. The new system will be implemented at the beginning of next year.
- In order to develop most desirable environment for dialogue from a global perspective, we aim to realize a process for a dialogue-type shareholder meeting by continuing our efforts to promote electronic delivery of attachments to notice of convocation of shareholder meetings and electronification of voting process in shareholder meetings and to develop environment for companies to set schedules and record dates for shareholder meetings reasonably and appropriately in relation to situations in other countries.
 - In particular, as a part of efforts to develop environment for enhancing information disclosure, we will discuss issues on allowing attachments to notices of shareholder meetings to be provided electronically by default and obtain a conclusion at the subcommittee established at the Legislative Council.
 - We will work on the improvement and dissemination of procedures applied for special extension of deadline for filing corporate taxes, which is aimed at allowing companies to schedule shareholder meetings flexibly. Also, we will follow up on the progress of the efforts for realizing a process for a dialogue-type shareholder meetings and transmit information both in Japan and overseas.
- Based on the "Guidance for Integrated Disclosure and Company-Investor Dialogues for Value Creation – For encouraging ESG integration and non-financial information disclosure and investment in intangibles" (formulated by the Ministry of Economy, Trade and Industry on May 29, 2017), we will analyze best practices of information provision and reporting by companies, establish a venue for promoting such best practices, encourage institutional investors to encourage their investment management companies to make use of the guidance and have stakeholders improve access to non-financial information. In addition, we will demonstrate the

"Environmental Reporting Platform", which serves as a platform for dialogue between companies and investors. Through these efforts, we will promote ways of information provision including disclosure, of dialogue, and of investment that take into account ESG (environment, society and governance) factors and contribute to improvement of corporate value in the mid- and long-term.

③ Improvement of the quality of disclosure of information by companies, accounting and auditing

In order to build a vital capital market that realizes smooth provision of capital to companies that seek sustainable growth and consistent growth of household assets, information necessary for investors' investment decision needs to be provided adequately and fairly. In addition, such information needs to be disclosed effectively and efficiently.

Due to progress of globalization and technological innovation, listed companies face increasingly complex business challenges. In order to encourage companies to disclose information in a more comprehensive and easy-to-understand manner in such an environment, we will carry out comprehensive examination on the issues of disclosure with hearing opinions from a wide range of stakeholders including companies and investors.

In addition, in order to secure reliability for information disclosure by companies, we will continue our efforts to improve quality of accounting standards used in Japan and to secure proper accounting auditing on business activities that are becoming ever more complex.

A) Improve the quality of information disclosure by companies

In order to ensure comprehensive provision of information necessary for investors to make investment decisions, the related government bodies and the Tokyo Stock Exchange Co., Ltd. will continue to work together to have trans-system and cross-government discussions, and make the following comprehensive examinations and efforts with the aim of developing an environment which is designed to realize the most effective and efficient disclosure from a global standpoint and set reasonable schedules and record dates for shareholder meetings by the first half of 2019.

- In order to enable companies to disclose business reports and annual securities reports in an integrated manner, hearing opinions from companies, investors and other relevant parties, the related government and other bodies accelerate their joint discussions on institutional arrangements, interpretation of relevant rules, clarification and dissemination of ways to standardize items among different disclosure rules and any other necessary measures for disclosure items that have similar or related contents and can be commonalized among different disclosure rules. A final plan will be set forth within this year.
- Based on discussions at the meeting of the Council on Investments for the Future on January 27 this year, we will set up a review meeting with companies, investors, relevant ministries and other parties at the Financial Council. At the meeting, while securing adequate and fair disclosure of information in the changing environment surrounding market and disclosure, we will make a comprehensive study on ways of disclosure of information such as strategies and governance that contribute to constructive dialogue between listed companies and investors, to improvement of mid- and long-term corporate value, and to promotion of mid- and long-term investment. Then, we will take initiatives in order on issues for which final plans have been developed during the current fiscal year.

- Formats for earnings briefing were revised in February 2017 for the purpose of increasing flexibility of earnings briefing, of moving its focus to a role as an "early report", and of encouraging diversification of earnings forecast disclosure. Based on the analysis of the effect of the revision and the international situation and discussion, hearing opinions from a wide range of stakeholders including companies and investors, we will discuss problems and ways of further eliminating duplications among disclosure rules and of improving efficiency. We will obtain an interim conclusion by around next spring.
- We aim to realize a process for dialogue-type shareholder meetings by continuing our efforts to promote electronic delivery of notices of convocation of shareholder meetings and electronification of voting process in shareholder meetings and to develop environment for setting schedules and record dates for shareholder meetings reasonably and appropriately in relation to situations in other countries. [See above]

B) Improvement of the quality of accounting standards

In order to improve the quality of accounting standards used in Japan, in corporation with relevant organizations, we will promote necessary efforts such as promotion of expansion of companies that voluntarily adopt International Financial Reporting Standards (IFRS), strengthening of international transmission of opinions on IFRS about issues such as goodwill accounting, enhancement of the quality of Japanese standards and fostering of international accounting specialists.

C) Securing of improved quality and reliability of accounting

In order to establish a virtuous circle in which auditing firms are appropriately evaluated by companies and shareholders for providing high quality accounting audit under effective organizational management and aim to provide higher-quality accounting audit, we will ensure sustainable improvement and reliability of the quality of accounting audit by following up on efforts of auditing firms based on the governance code for auditing firms (formulated by the Financial Services Agency on March 31, 2017) and by examining management control systems of auditing firms.

④ **Smoothing of business restructuring**

Amidst the change of the global business environment caused by the progress of the 4th Industrial Revolution, in order to improve "earning power", companies need to review their business portfolio agilely and invest management resources in businesses that are expected to grow and become profitable while deepening efforts for corporate governance reform. For this reason, we will review a wide range of relevant regulations and take measures to promote bold business restructuring such as agile review of business portfolio, including promotion of restructuring by using stocks.

ii) **Promotion of smooth supply of capital through realizing vital financial and capital markets**

① **Promotion of stable formation of assets by households and improvement of market environment**

It is important to make household financial assets into balanced portfolio in order to realize flow of money that consistently increases the national wealth accumulated in our country. For this

reason, we will take comprehensive measures on households and financial institutions.

To encourage stable formation of assets by households through long-term and diversified investment with the use of regular investment in small amounts, we will disseminate and promote the NISA, including the installment-type NISA, and enhance financial and investment education that leads to improved practical knowledge of investment in households.

Based on the “Principles for Customer-Oriented Business Operations” (formulated by the Financial Services Agency on March 30, 2017), we will promote stable formation of assets by households by encouraging all financial institutions that sell/develop financial products to compete in providing better financial products and services.

A) Promotion and dissemination of long-term and diversified investment with the use of installment and enhancement of financial and investment education

- In order to promote stable formation of assets by households, we aim to further promote and disseminate the entire NISA system including the installment-type NISA. In addition, we will consider improving procedure of the Junior NISA, taking into account voices that point out troublesomeness of procedure of the Junior NISA.
- Also, in order to improve the knowledge (investment literacy) of investment in households, we will promote practical investment education and consider how to provide information that is beneficial for investors in comparing and selecting investment trusts. In addition, we will promote the use of the defined contribution pension plan and the NISA in workplace to people including those who have not previously been interested in asset building.
- We will encourage market participants’ efforts on improving the liquidity of the exchange traded funds (ETF) markets and on improving the recognition of ETFs so that ETFs can be used for consistent growth of household assets.

B) Establishment of "customer-oriented business operation"

When financial institutions make efforts such as formulating an effective policy based on the "Principles for Customer-Oriented Business Operation", it is important that the efforts not only take appropriate forms but also lead to substantial actions by financial institutions such as competing in providing better financial products and services. Therefore, the Financial Services Agency will monitor whether there is a gap between policies and real practices of each financial institution and consider publication of cases the agency has come to know through the monitoring in various forms. Also, the Financial Services Agency will encourage financial institutions to set up and publicize KPIs in their policies so that those who can objectively evaluate how well customer-oriented business operation has been established in those institutions. . .

C) Responding to high-speed trading

In order to introduce regulations on high-speed trading of stocks and other financial products, to which concerns are expressed in terms of market stability and efficiency, fairness among investors, formation of prices that reflect mid- and long- term corporate value, and vulnerability of systems, we will enforce the Act for Partial Amendment to the Financial Instruments and Exchange Act and develop environment to ensuring fairness, transparency and stability of markets.

D) Efforts aimed at promoting mid- and long-term investment

It is important to realize the virtuous circle of the entire Japanese economy by promoting mid- and long-term investment that results in sustained growth of investee companies and in expansion of returns for investors over the mid- to long-term.

For this reason, we will work on promotion of long-term and diversified investment with the use of installment, on further deepened corporate governance reform with its focus moved from “form” to “substance”, on introduction of registration system on high-speed trading, and on introduction of the fair disclosure rule.

E) Improvement of convenience of financial and capital markets and their revitalization

- In order to reduce settlement risks and improve market efficiency, we will encourage Japan Securities Dealers Association to steadily advance their initiatives to implement “T + 1” settlement of JGBs on May 1, 2018, and implement “T + 2” settlement of stocks and corporate bonds on April or May 2019.
- We will continue the work of establishing a comprehensive exchange as early as possible and to ensure smooth listing of electricity and LNG futures.

F) Responding to international discussions on financial regulation / Strengthening cooperation with overseas authorities

We will make efforts to make international discussions on financial regulations consistent with Japan’s opinion that both sustainable economic growth and stability of the financial system should be ensured. Also, we will raise our opinions internationally and contribute to international discussions regarding the way financial regulation and supervision should be to deal with common environmental changes in Japan and abroad, such as the low interest rate environment and evolution of technology. In addition, in order to deal with globalization of activities of financial institutions and financial transactions, we will strengthen cooperation regarding supervisory and technological issues with overseas authorities and will steadily foster pro-Japanese groups through accepting staff from financial authorities from emerging countries at the “Global Financial Partnership Center”.

G) Promotion of the Tokyo Global Financial Center

In terms of finance, it is important that Tokyo is recognized as an attractive business venue and develops as a hub that attracts human resources, information and funds from all over the world. From this standpoint, the existence of the world's leading asset owners such as pension funds is considered to be one of our strengths. Based on this, we will cooperate with the Tokyo Metropolitan Government and encourage at the Financial Market Entry Consultation Desk foreign financial companies to establish Japanese operations in an effort to realize “fast entry”, and to smoothly process application for registration as financial business operators from overseas asset managers who are expected to do business with Japanese asset owners.

In doing so, we will strengthen cooperation with overseas authorities and aim for the smooth and speedy registration of overseas asset management companies that have been successful in foreign markets.

Furthermore, in order to enhance the international presence of Japan and improve Tokyo’s status as a global financial center, we will continue to provide necessary support to the IFIAR (International Forum of Independent Audit Regulators), which has established its secretariat in Japan for the first time as an international organization in financial field, for its smooth administration.

H) Promotion and enhancement of the individual-type Defined Contribution pension plan (iDeCo) and corporate pension

We will smoothly enforce the Act for Partial Revision of the Defined Contribution Pension Act and familialize small and medium-sized enterprises with the revision. We will also promote and

enhance the iDeCo and corporate pensions through disseminating the risk sharing corporate pension plan and encouraging pension funds to accept the Japan's Stewardship Code.

② **Improve the quality of financial intermediation function**

Financial institutions are expected to cope with the ongoing reduction and aging of population, continued low interest rates and various environment changes surrounding management, and financially support sustainable growth of Japanese industries and companies. From this standpoint, we will secure the soundness of financial institutions, enable financial institutions to fully demonstrate their financial intermediation function even when economic or market stress arises, and enable financial institutions to demonstrate high-quality financial intermediation function such as providing companies with advice and financial services that are based on thorough evaluation of their business potential and contribute to enhancement of corporate value of those companies, leading those efforts to improvement of the competitiveness and productivities of Japanese industries and companies.

A) Stable demonstration of financial function towards improvement of the competitiveness and productivities of Japanese industries and companies

Financial institutions are required to financially support the efforts of Japanese industries and companies to improve their competitiveness and productivities and to promote their metabolisms by flexibly addressing substantial economic and market changes and stably demonstrating the financial intermediation function. From this standpoint, we will encourage financial institutions to construct solid business administration and risk management systems and further strengthen their financial bases. In particular, we will continue to request systematically important financial institutions to reduce shareholdings in their customers and clients on a stable manner. Considering the review of global financial regulations and the recent low interest rates, we will urge financial institutions to make efforts to strengthen their management bases through business model changes and reinforce their governance systems. Regarding regional financial institutions, based on the continued population decline in local regions, we will encourage those financial institutions to review their own business models and take concrete and effective actions to build sustainable business models to maintain soundness and to perform smooth financial intermediation functions for the future.

B) Further enhancement and strengthening of financial intermediation function

A financial institution's effort to support companies to improve their productivity, which in turns enables the financial institution to secure stable client base and earnings (creation of shared values with clients), serves as a powerful option as a sustainable business model for financial institutions and leads to the vitalization of the local economy.

From this point of view, we will take a range of measures and continue to encourage financial institutions to make continuous and systematic efforts so that financial institutions may improve their lending attitudes relying excessively on collateral and guarantee appropriately evaluate business nature and growth potentials of their customer companies (evaluation of business potentials) and provide customer companies with advice and finance that contribute to enhancement of values of those companies. (Refer to "III - 1. Innovation of Small-and-medium Companies and Small Businesses / Vitalization and Improvement of Productivity of Service Industry".)

C) Supply of growth capital by public-private funds

While paying attention to the principle of subsidiarity and the principle of externalities that public-private funds and government-affiliated financial institutions are required to comply with, we will continue to consider initiatives that will enable them to exhibit their functions for the purpose of promoting supply of growth capital from the private sector.

4. Opening public services and assets to the private sector (Expansion of utilization of PPP/PFI, etc.)

(1) Main progress status of KPI

《KPI》 Expand PPP/PFI business scale to 21 trillion yen for 10 years (FY 2013 to 2022).

Among them, the target for the PFI project utilizing the concession system is targeted at 7 trillion yen.

=> Business scale from 2013 to 2015 (figures as of January 2017)

- PPP/PFI business: Approximately 9.1 trillion yen.
- PFI project utilizing the concession system etc.: approximately 5.1 trillion yen

(2) Specific measures to be newly taken

Under the private finance initiative system, private business management approach is introduced into the operation of public facilities. This will enable effective and efficient development and operation of infrastructure under severe financial conditions, thereby creating large market and opportunities to strengthen international competitiveness for private companies. In addition to continuing to achieve progress and numerical targets for airports, water supplies, sewers, roads, educational facilities and public housing listed in “PPP/PFI Promotion Action Plan (Revised in 2017)” ((Decided on June 9, 2017, private-sector funds utilization promotion meeting, referred as "action plan" in this section), it is necessary to strengthen efforts to achieve numerical targets for newly listed passenger terminal facilities for cruise ships and MICE facilities.

For this reason, the fields targeted mainly by the concession systems are classified as "Fields that respond to growing demand by growing domestic and overseas visitors such as airports, educational facilities, passenger terminal facilities for cruise ships, MICE facilities" and ""Fields that require sophistication of asset management and development of new business in response to decreases in demand due to population declines such as water supply, sewerage, toll roads, public housing, public power generation facilities, industrial water supply, and try to solve the problems peculiar to each field listed below.

For this reason, it is important to establish a mechanism to transfer elements essential to business between public and private sectors and also properly chosen the person who is responsible for public services and assets from the government and the private considering for taxpayers or users' point of view.

And it is important to improve and elaborate this mechanism which is being trusted by private enterprises that will be the leaders along with the government, we will also implement measures to improve and implement the promotion system including guidelines and improvement mechanisms for that purpose.

i) Measures to be taken in growth-oriented fields

- On the premise of safeties, we consider depends on correspondence of the operation owners such as clarification of introduction or operation of a mechanism enabling entry of non-passengers into the security area of domestic routes, bringing kitchen equipment etc. to the same area, making two stages of security inspection of domestic and international flights and relocating CIQ facilities for the conversion.

- Regarding the CIQ facilities where are separately owned between the country and the concessionaire, we work on transferring ownership to the concessionaire and lend to the country. Also, we consider that enable to change the flexible layout in the terminal building according to the correspondence of the concessionaire.
- Regarding the concession system at 7 airports in Hokkaido (Shin Chitose Airport, Hakodate Airport, Kushiro Airport, Wakkanai Airport, Memanbetsu Airport, Asahikawa Airport, Obihiro Airport), we implement necessary measures to ensure equal footing and to utilize the specific regional airport operator system from the perspective of sightseeing strategies such as formation of wide area tourism round route, and plan to select the concessionaire by 2019 with the "5 principles" listed in the action plan.
- Regarding PFI Law, to make concessionaires who are not designated managers possible to allow certain third parties to utilize within the scope of the purpose of establishing public facilities, we will take necessary legal measures at the next ordinary diet session.
- About the passenger terminal facilities for cruise ship, to utilize concession system, we support building a scheme team considering to overseas cases and user's needs for Fukuoka city's waterfront redevelopment and concession project, and aim for formation of precedent cases.

ii) Measures for maturity-ready fields

- iii) • From the viewpoint of promoting the introduction for the water supply and sewerage the concession system by the administrative authority local governments, we take necessary measures to be applied for the PFI law from the next fiscal year to support exceptionally by exemption / reduction of deposit, when a certain period is set up and the obligation in the project is early redeemed at the consideration of the operating right through pioneering efforts that will become a prime mover for lateral development,
- iv) • After the establishment of the draft law to revise Waterworks Act, based on the revised Waterworks Act, we take necessary measures to concern the calculation method of fee cost on the premise that private enterprises are involved in the operation of water supply business considering for the opinions of related local governments, private companies, and experts.
- v) • To organize a precedent case in the water supply business, we will consider measures for minimizing the new burdens for municipalities such as providing grants and subsidies only for certain projects that we work on before the achievements of the business utilizing the concession system is confirmed domestically. We will consider it in parallel with the enforcement situation of the supplementary budget for 2016 as well.
- vi) • For public power generation facility, we will consider whether to designate as the priority area and to set numerical targets and will conclude it during this fiscal year.
- vii) • As a pioneering effort to turn forestry into a growth sector, we solicit proposals for improvement in national forest from private business operators with necessity data, in order to verify the possibility of a method of selling the trees more advantageous by collectively managing from the procedure from the logging to the sales at the long-term / large lot by private business operators.

iii) Measures for development of the promotion structure and the operation

- Based on the study in relevant ministries, by the end of July this year, of the ideal form of contract, Cabinet Office will consider the necessity of legal grounds for the facility manager's payment. This is to enable the manager, in contract, to comit the payment of a specific sum of

money to the concessionaire such as to cover warranty against defects, refund operation fee, and purchase necessary assets at the expiration of contract which leads to the scheme for appropriate risk sharing between public and private sectors. If necessary, Cabinet Office will take required measures for PFI law by the next ordinary Diet session

- In the water supply and sewerage business, to make a system which allows to pass-through price fluctuation to the fee when the fluctuation exceeds a certain defined range, related ministries will clarify the definition of price fluctuation and the formula for its shift to the fee by the end of the year, and establish the scheme for proper utilization such as stipulating them in the related manuals and permission standards. Based on this, the Cabinet Office prepares guidelines.
- Regarding appropriate market sounding methods (information and items to be disclosed, methods of dialogue, etc.), including the results of review through overseas case surveys by related ministries and agencies and hearings with stakeholders until the end of July this year, the Cabinet Office prepares guidelines.
- In the case where the concessionaire is asked to take over the existing businesses other than the administrator, making sure not to take over exceeded risks to the concessionaire, the Cabinet Office prepares guidelines.
- Regarding the review committee that selects the concessionaire, the relevant ministries and agencies will consider the future course of action to the rule-making to publish the minutes in principle, and the Cabinet Office will confirm the intention of the private enterprise side by the end of July this year and formulate guidelines if there is no problem found in the confirmation process.
- Refer to cases of overseas and efforts of similar fields, from the perspective written in "Action Plan" in the end of July this year, the relevant ministries and agencies will examine how to calculate VFM (Value For Money: providing the most valuable service for payment), how to pay consideration and evaluation method. Based on the result, the Cabinet Office prepares guidelines.
- Regarding the capital contribution by the local public entity to the concessionaire and the investment capital by a specific company, except for the cases where the necessity is clear and it cannot clearly respond to the necessity in a method other than investment, do not accept it. Even if you allow investment, we will not assign conditions such that the amount of funds procured by the bid participant becomes uncertain by requesting excessive shareholder authority against the investment amount, based on the result, the Cabinet Office prepares guidelines.
- In promoting the PFI project utilizing the concession system, because the following "5 principles" are necessary, regarding the function and authority of the Cabinet Office and the way of organization for exercising its authority (including the composition of external neutral specialized agencies), we will consider cases of foreign countries, if necessary take required measures for the PFI Law by the next ordinary Diet session.
 - (i) Operation and compliance with guideline rules thoroughly
Summarizing rules that should be observed by the concession system beyond discipline in the guidelines based on public and private debate, it should be a mechanism to have this practice done thoroughly in individual projects.
 - (ii) Hands-on support from entrance to exit

It should be a system that works together from the start to the end of the project and support thoroughly to administrators with poor knowledge such as local public entities that make the first use of the concession system.

(iii) One-stop consultation with relevant ministries and agencies

When negotiating with related ministries and agencies, an administrator who work as the concession system with a new field or new approach, there should be a system that allows administrators to make consultations as one stop as possible.

(iv) Establishment of PDCA cycle

In all projects of the concession system, it should be a system that can clarify points of improvement in selection process from the position of both the public and private sectors by reviewing it after the selection of the concessionaire and to reflect them on the guidelines.

(v) Ensure coordination and arbitration function between administrator and concessionaire

Even after the start of business of the concession system, it should be a system that can constantly create new efforts by collecting the requests for improvement from the concessionaire and sharing them with administrator.

- In addition to these, regarding each effort relating to the concession system listed in the action plan, the related ministries and agencies will work together in cooperation.
- Regarding systems and individual projects relating to the concession system in Japan, we publicize to local governments and hold explanatory meetings for business operators and investors in domestic and foreign major cities.

5. Bold Regulatory Reform by the National automated drive Special Zone

(1) Main progress status of KPI

《KPI》 Japan will be marked in the third rank for bank's business environment ranking in the developed country of the world by 2020.

=> It is marked 26th in October 2016 (2 rank down compared to the previous year)

《KPI》 Aiming to be ranked 3rd in world's city's comprehensive strength ranking by 2020. (4th in 2012)

=> 3rd ranked as published in October 2016 (1 rank up from a year before)

(2) Specific measures to be newly taken

(Accelerate Promotion of National Strategy Special Zone by Reform of Remaining "Rock Restriction" etc.)

In National Strategy Special Zone, based on the National Strategy Special Zone Act which was established in December 2013, we have made a breakthrough in so-called rock regulation in general with two years to the end of fiscal 2015 as the intensive work period.

Also, since last fiscal year, in order to accelerate the "second stage" of In National Strategy Special Zone, as two years to the end of fiscal 2015 as the intensive work period, we have set as "new goal" to reform the remaining "rock regulation", mainly in 6 fields and matters such as "Promotion of acceptance of foreign talent in a wide range of fields".

Regarding the regulatory reform matters realized by the National Strategy Special Zone so far became more than 70 including nationwide measures, especially we have made regulatory reform that could not be realized for many years, for instance, speed up procedures for urban planning, liberalization of so-called private accommodation (housing that can be accommodated), establishment of medical department, establishment of regional nursery teacher system, clarification of employment conditions (establishment of employment labor consultation center), private school openness of public school, administrative division of agricultural committee Review.

In addition, there are 10 areas ("Tokyo area" (Tokyo, Kanagawa Prefecture, Chiba-shi and Narita-shi (Chiba Prefecture)) "Kansai area (Osaka Prefecture, Hyogo Prefecture, Kyoto Prefecture), "Niigata-shi (Niigata Prefecture)", "Yabu-shi (Hyogo Prefecture)", "Fukuoka-shi and Kitakyushu-shi (Fukuoka Prefecture)", "Okinawa Prefecture", "Semboku-shi (Akita Prefecture)", "Sendai-shi (Miyagi Prefecture)", "Aichi Prefecture", "Hiroshima Prefecture, Imabari-shi (Ehime Prefecture)" which we have designated over the period from May 2014, August 2015, last January and the third, Total of 242 projects were approved by the Prime Minister through the National Strategy Special Zone Conference (referred as "Area Conference") and the National Strategy Special Zone Advisory Council held 83 times, respectively, they are dramatically improving now.

Furthermore, in addition to regulatory reform matters included in "Japan revitalization strategy 2016" in March this year, based on regional conferences and proposals solicited from all over the country, we are submitting to the National Assembly a bill to revise the National Strategy Special Zone Law, which sets forth new regulatory reform matters centering on the

mentioned 6 fields and matters.

i) Implementation of prompt business

In the current 10 designated areas, we will make full use of regulatory reform matters based on the National Strategy Special Area Act and to realization concrete business in a visible form as quick as possible, and give a strong encouragement to related local governments.

At that time, we will consider the evaluation of the efforts until the end of last year and will lead it to further reform, we will manage progress by PDCA cycle with strictly evaluating the outcome of the reform at the National Strategy Special Area Special Advisory Council followed this law and "Basic policy of national strategy special area" (decided by the Cabinet, February 25, 2014).

ii) Addition of further regulatory reform items

Regarding the National Strategy Special Zone, particularly, including the 6 areas and matters that should be focused on above, in addition to regulatory reform proposals solicited from all over the country, regarding the following regulatory reform matters such as the establishment of regulation "sandbox" system, at the National Strategy Special Area Advisory Council and the National Strategy Special Zone Working Group, we consider to newly add to the National Strategy Special Area Act and take legal action promptly including submitting of next Diet.

On that occasion, proposals from areas not designated as a national strategic special zone, as well as proposals that did not become measures in the national strategic special zones, as necessary, "under national scale or at least a special zone from the viewpoint of realizing reform, actively consider as a nationwide regulatory reform measure or as a regulatory reform measure in the Special Zones for Structural Reform / Comprehensive Special Zone, and realize it.

Also, based on the basic policy of the national strategy special area "We will make proposal solicit at least twice a year", this year we will also invite proposals from local governments and private sectors nationwide during the summer.

(To promotion of demonstration of "near future technology", establishment of regulation "sandbox" system, etc.)

① Rapid creation of regulation "sandbox" system by establishment of "post-check rule"

- By conducting "demonstration of near-future technology" that frequently draws on Japan's growth strategy and the 4th industrial revolution in the National Strategy Special Zone with high frequency, it is important to encourage new innovations launched by local and first time ever.
- For this reason, we continue to vigorously demonstrate near-future technologies such as automated driving, small unmanned aerial vehicles (drone), in order to carry out these thoroughly more smoothly, fundamentally review relevant preliminary regulations and procedures in the National Strategy Special Zone, referring to "regulatory sandboxes" in other countries, we will promptly realize the establishment of regulation "sandbox" system.
- Specifically, based on the provision of the National Strategic Special Zone Law amending bill submitted to the current Diet session, concerning concrete measures, we will promptly examine within one year from the enforcement of this measure, with the results, we will eliminate the

preliminary regulations and procedures related to existing laws and regulations or reduce them to the minimum necessary by establishing "post-check rules" such as information disclosure, third party / expert monitoring, evaluation, dispute settlement system.

② **Accelerate promotion of public road demonstration experiments to realize "fully automated driving"**

- Based on "Japan revitalization strategy, revised 2015" and "Japan revitalization strategy 2016", at the National Strategy Special Zone, we have been conducting demonstration experiments on automated buses in Semboku City in November last year and holding the first "Sandbox Subcommittee" in Tokyo (Ota Ward) in March this year. We will continue to conduct demonstration experiments including cases involving necessary regulatory reforms at a high frequency and verify the effect.
- Moreover, in order to aim at technology development up to so-called "fully automated driving (level 4, 5)", in order to make a realization public road demonstration related to mobile services by automated driving in Special Zones within this year,
 - On public road demonstration experiment of remote type automatic traveling system, review and clarify regulations and procedures concerning road usage permission under the Road Traffic Law under further cooperation with the Special Zone Municipality.
 - On public road demonstration of vehicles not equipped with handle, accelerator and brake pedal under the cooperation with the Special Zone Municipality, review and clarification of regulations / procedures related to safety standards (alternative safety ensuring measures) under the Road Trucking Vehicle Law).

We consider all above and take necessary measures as soon as possible.

- In addition, as a new institutional and technical problem relating to automated driving based on requests from private business operators who intends to carry out experiments,
 - The way of responsibility for accidents etc. (Currently, driver's individual) at public road experiment
 - Providing it with Smoothly to provision to special zone municipalities and business operators on the assumption that the signal information cannot be detected by a camera on the vehicle
 - Realization of time sharing of cargo / passenger vehicles

In the National Strategy Special Zone working group and regional meetings of each Special Zone, we will organize issues as soon as possible to realize the project.

- Furthermore, after establishment of the revision bill of the National Strategic Special Zone Law as mentioned above, we will respond to various consultations related to the relevant laws and regulations and provide information to private business operators, as prescribed in the same bill, we set up a "one-stop center for technological demonstration of the near future" that will also perform proxy procedures if necessary, under the regional meetings of Tokyo, Semboku City and Aichi Prefecture.

③ Accelerate promotion of demonstration experiments on drone

- Based on “Japan revitalization strategy, revised 2015” and “Japan revitalization strategy 2016”, in the National Strategy Special Zone, We have carried out demonstration experiment in Chiba city in April last year and Semboku city in July, but we will continue to conduct demonstration experiments including cases involving necessary regulatory reforms at a high frequency and verify the effect.
- As for the drone, although it is aimed to realize out-of-sight flight in areas expected to have needs such as mountain areas around next year, regarding the demonstration experiment in the national strategic special zones such as the coastal sea in Chiba City scheduled for this year, it is necessary to minimize preliminary regulations and procedures with ensuring safety while aiming at achieving the goal ahead of schedule.
- Specifically, for example, considering the maintenance of various devices for drone to safely landing on water and the obligation to operate by experts, with seeking specific concrete security measures for the special zones municipalities and project implementers, we promptly set up the aforementioned "one-stop center for technological demonstration for the near future" under the area meeting of Chiba city and we adjust with ship related personnel including fishery and wide range of related organizations such as the Ministry of Land, Infrastructure, Transport and Tourism quickly and smoothly.

(Promotion of 6 fields and matters to be focused on, such as promotion of acceptance of "foreign talent" in a wide range of fields)

④ Promotion of acceptance of "foreign talent" in a wide range of fields

- Regarding the acceptance of "foreign talent" at the national strategic special zone, we have included special measures about "housekeeping support human resources" and "founding talent" included in the National Strategy Special Area Law Amendment Law revised in July 2015.
- We will continue to steadily recognize the business plan concerning acceptance of these foreign talented personnel, in order to stimulate related industry and inbound correspondence, regarding other wide range of foreign talents to be accepted in the Special Strategy Zone for National Strategy, we will proceed with necessary studies based on proposals from local governments and the private sectors.
- In particular, when implementing the Project to Accept Foreigners for Agricultural Support in National Strategic Special Zones, under proper management with "council" consisting of local public bodies and administrative agencies of the nation as the core, supporting foreigners working on agriculture with skills for the maximum 3 years, by dispatching the personnel from a specified organization that signs an employment contract to an agricultural management body and engaging in agricultural support activities, we promote the various crops production in the production area, and we intend to achieve the growth industrialization in agriculture and strengthen international competitiveness through the expansion of the scale of business.

⑤ Promotion of acceptance of "foreign talent" in a wide range of fields in Fintech field

- In order to promote the entry of foreign companies into the Fintech sector to strengthen the international financial functions of the city, under the support of local public entities, we consider how to respond to foreigners who established a network with domestic financial institutions and investors to continue their founding activities without returning home and draw a conclusion this year.
- In order to further promote acceptance of foreign talent, in advanced personnel point system, take special additives as soon as possible, and we will examine how to satisfy the obligatory requirements of parents and domestic employees of said personnel and obtain conclusions this year.

⑥ Review of lighting regulations that promote diversion from existing office to nursery school

- In order to promote diversion from an existing office to nursery school as the zero-waiting list for children, in the case where use is also made in consideration of a childcare environment for the regulations concerning the window for daylighting of the Building Standard Law required for each nursery room, we promptly take the required measures so that we can divert office rooms without sized windows that are effective for daylighting regulations to nurseries.

iii) Addition of specified area

We will promptly respond to regulatory reform proposals by local governments and private sectors nationwide, and make realization for each concrete business, and the enthusiastic local public bodies will be proposed of the 4th order designation in the national strategic special zones with suggesting bold regulatory reform items by the middle of this year.

In order to promote reconstruction assistance and innovation based on afflicted areas in disaster areas, efforts to utilize various near future technologies are actively carried out. In addition, these efforts are expected to revitalize afflicted areas, mainly in primary industries and tourism fields.

From this point of view, it is necessary to positively consider the designation of the area including the disaster area, especially regarding the 4th order designation of the special strategic zone of the national strategy.

iv) Drastic reinforcement of PR activities related to success stories examples

Possibility of efforts towards economic growth and regional revitalization through regulatory reforms for local public entities and private enterprises other than designated areas by aiming to fundamentally strengthen public relations and PR activities such as success stories in the National Special Strategy Zone, and will expand the effect of the National Strategy Special Zone to the whole country.

In particular, we encourage expanding organized symposium by the Cabinet Office / Local Public Organization, and creation of TV programs / brochures. In addition, Currently, by strengthening the structure through the "Special Zone Promotion Collaborative Secretariat" between the Cabinet Office and the Special Zone Municipalities established in the Tokyo Metropolitan Government and Yabu City, fundamentally strengthen the public relations comprehensive strategy for each special zone.

6. Secure cyber security

(1) Main progress status of KPI

《KPI》 By 2020, we aim for more than 30,000 registrants of Information Security Assurance Support Professionals

=> April 1, 2017: 4,172 people

(2) Specific measures to be newly taken

In the super smart society where people can live comfortably and abundantly in all situations, securing a safe cyber space is an important foundation for economic and social activities in Society 5.0. Although it is expected that the convenience of the citizen's life will be further increased in the future by incorporating innovation through data utilization and the like into the society, while the advancement and scale-up of attack methods against the background of technology development, Threats on cyber security are definitely increasing due to the expansion of protection targets. Therefore, cybersecurity measures will be "investment in the future" indispensable for achieving thorough measures at the Tokyo Olympics and Paralympic Games in 2020 and ensuring the stability of economic and social activities. We will consider efforts not only cyber security strategy, also we should encourage public and private sectors promptly and strongly with enhancing government agencies and important infrastructure, enhancing IoT security, training and securing of reliable security human resources.

In particular, regarding important infrastructure such as information communication, electric power and finance, if the function stops or declines, it may have serious adverse effects on people's lives and corporate activities. Not only for the faults / accident information, including information that seems to be the predictive stage, by considering a framework etc. that strengthens coping measures related to cyber-attacks, such as aggregating information widely from various fields, it is necessary to secure safe and sustainable provision of important infrastructure services.

- Based on "Summary of cybersecurity in view of 2020 and the subsequent" will be compiled by Cyber Security Strategy Headquarters by this summer, for the 2020 Tokyo Olympic Games and the Paralympic Games, government agencies intend to enhance efforts on important infrastructure, enhance IoT security, nurture security human resources, and enhance cybercrime / cyber-attack measures.
- For important infrastructure protection, based on "4th Action Plan on Information Security Measures for Critical Infrastructure" (April 18, 1992 Cyber Security Strategy Headquarters Decision), we will materialize it from the safety and sustainable provision of services. Including this, in order for the Cabinet Cyber Security Center (NISC) to act as a nodal point for promoting public and private partnership activation, we will utilize specialized institutions and other means to concentrate and analyze information related to cyber incidents including not only information on disability and accident but also information that seems to be the predictive stage, to connect the information to countermeasures, we will draw a conclusion during the current fiscal year on the framework to strengthen the coping situation concerning cyber-attacks and promptly take necessary institutional measures.
- About the concept concerning the design, development and operation of the IoT system, in cooperation with the public and private sectors in Japan, we promote incorporation into various

criteria concerning mono / network and system. Also, we actively work on international standardization through the realization of safety and high quality IoT system based on international standards, and aim to strengthen international competitiveness. In addition, to enhance the security measures of IoT equipment, it is necessary to grasp continuously and extensively the actual situation, implement and inform measures for users and public and private relations to promote measures to prevent similar damage, we will establish a framework of cooperation by parties during this fiscal year and promote necessary measures.

- Based on the "Cyber Security Human Resource Development Program" (determined by Cyber Security Strategy Headquarters on April 18, 2017), we will promote various workforce development measures. Such projects include the training of the core workforce in major infrastructure and industrial infrastructure, practical exercises for government/public agencies/major infrastructure operators, and discovery and development of young people while strengthening collaboration among measures.
- In order to promote the revitalization of the security industry, we will promote efforts from both demand and supply, and create a virtuous circle. Regarding demand side, by encouraging the government to clarify the fields of security products and services that should be procured positively and revising the list and encouraging use of cyber security management guidelines. In addition to promote further awareness reform of the management group including small and medium-sized enterprises, we will promote security investment in companies with a view to growth of related industries such as IoT industry. For the supply side, we have established a system for certifying security products and services with certain quality during this fiscal year. With these efforts, we will try to enhance the technologies based on the "cyber security R & D strategy" formulated during the current fiscal year, promote the spread of security by-designs and intend to strengthen the international competitiveness of the security industry.

7. Sharing Economy

(1) Main progress status of KPI

《KPI》 Creating Sharing Economy Utilizing examples of local public bodies at least 30 areas during 2017.

* KPI that we will freshly set up this time

(2) Specific measures to be newly taken

Sharing economy is a broad business that shares idle assets such as goods, space, knowledge, wisdom, and skills, which are not used enough, using ICT, it is expected to contribute to revitalizing the Japanese economy by creating new business areas, improving the convenience of the people's lives, and revitalizing the regional economy by implementing a new living industry.

The sharing economy in Japan is in the predawn, although various services will be expected to appear in various fields in the future, on the other hand, it is also easy to assume that problems that were not supposed to be generated occur. For this reason, at the Sharing Economy Promotion Office established in the Cabinet Secretariat in January this year, we will promote the spread of sharing economies by maximizing respect for creativity and ingenuity in the private sector, it is necessary to conduct studies together to secure safety and security. Specifically, in addition to promoting the spread of voluntary guidelines to secure safety and security, and supporting the utilization of the gray zone elimination system, it is required to promptly conduct necessary studies and the like when cross-cutting issues arise.

Also, the sharing economy has spread rapidly overseas as well, because there is a movement of examination toward creating international rules by public-private partnership, we should contribute to the formation of international consensus through active dissemination of cases of Japan's efforts in the future.

- Mainly in the sharing economy promotion room established in January this year, based on the "Sharing Economy Promotion Program" (Interim Report of the Sharing Economy Review Conference, November 10, 2016), enhancing secure of safety and reliability of sharing economies by dissemination of voluntary rules by private organizations, we participate in places such as creating international rules through public-private partnerships that are expected to become full-scale debate in the future, and contribute to the formation of international consensus through active dissemination of examples of Japan's efforts.
- In the sharing economy promotion room, we will provide necessary information provision and adjustment, utilization of gray zone elimination system concerning interpretation of laws, responding appropriately to consultation from private enterprises, local public entities, etc. In addition, when there is a necessity of reviewing measures by these consultation correspondence and progress or change of future sharing economy, cross-cutting issues, we will consider as necessary.
- In order to solve local social problems using sharing economy and revitalize regional economies by implementing new living industry, Sharing Economy dispatching municipalities to local governments and promoting maintenance during the current fiscal year of matching mechanisms between private enterprises and local public entities, we aim to create examples of model sharing economy utilization in at least 30 areas during this fiscal year for each local public entity that has different tasks such as metropolitan area, regional core city, and

depopulated area. We compile the extracted best practices within this fiscal year and promote horizontal development and dissemination awareness to wide range of local public entities.

III. Construction of a regional economic virtuous circulation system

1. Innovation of Small-and-medium Companies and Small Businesses/ Vitalization and Improvement of Productivity of Service Industry

(1) Main progress status of KPI

《KPI》 Increase the number of small-and-medium companies in the black and small businesses from 700,000 to 1.4 million by 2020

=> FY 2015: 923,037 companies (FY 2014: 859,753 companies)

《KPI》 Aim to increase the rate of increase of labor productivity of the service industry to 2.0% by 2020 (0.8% in 2013)

=> 2015: 1.3% (2014: 1.0%)

(2) Specific measures to be newly taken

The key to the local Abenomics is to increase the added value and improve productivity of small-and-medium companies and small businesses as well as the service industry that support local employment and economy.

Businesses are rooted in local community, have excellent sense of real working places, and are able to respond speedily and flexibly to the changes in the environment including industry structure. However, they are also facing a sluggish growth of productivity and labor shortage.

The extension of the circulation of “human beings, things, money, and data” in and outside of communities to local businesses has been insufficient, which has to be improved. In addition, employment and income need to be locally generated, and local economic structure must be established which is truly independent and have resistance to economic and environmental fluctuations. Revival of small-and-medium companies as well as small businesses that face ahead of all the challenges confronting the Japanese economy must also be realized. These will serve as the touchstones for the revival of Japanese economy.

For this purpose, we will first promote investment and innovation to radically improve the on-site productivity of added values of small-and-medium companies and small businesses as well as the service industry. In order to achieve this, we will work on computerization and introduction of robots as well as use of data.

Second, through the use of finance functions and establishment of a consistent support system, we will promote efforts on improvement of productivity, smooth revival and succession of businesses, and appropriate metabolism. With the smooth succession of businesses, we will get through the period when many business managers of the baby-boom generation retire, which is anticipated to come around 2020. Credit guarantee system will be reinforced to encourage business managers to improve their management and productivity as well as to motivate financial institutions to appropriately evaluate business potential and support management. We will promote financing which is operated based on the evaluation of business potential by financial institutions and which is not too dependent on securities and guarantees, and accelerate the supplying of growth capital. These will be pursued through mutual collaboration among various supporting organizations, as well as enhancement of functions and improvement of quality thereof.

Third, local industries with high business potential as well as high-quality employment and wages create a virtuous circle, which further attracts investment and human resources to the local communities. We will provide support with a focus on the core companies and the group of their transaction partners that sell a large quantity of goods outside of their communities but procure most of them in their communities. While aiming to improve productivity of such companies as well as to vitalize the local economic spheres, we also aim at winning external demand. Our goals are to achieve integrated development of small-and-medium companies as well as small businesses in the local spheres. In the fields of growth of local communities such as tourism, sports, culture and art, and cutting-edge manufacturing, we will strongly support deliberate and “locally organized” efforts of people related to the local communities, including local governments and core companies. We will support the growth of local communities by promoting efforts of vitalization thereof including expansion of cross-generational interaction, using human resources through dual employment, using people who grew up in cities but wish to be employed outside of cities, and cultivating human resources who engage in management. With these efforts, we aim to expand “future investment to the local communities”, and expand investment by one trillion yen and lift GDP by 5 trillion yen in about 3 years.

Further, we aim at new development of creation of local communities based on the “General Strategy on Creation of Town, Human Resources, and Employment (2016 Revised Edition)” (approved by the Cabinet on December 22, 2016) and “Basic Policy on Creation of Town, Human Resources, and Employment 2017” (approved by the Cabinet on June 9, 2017).

- i) **Promotion of investment and innovation which radically improve the on-site productivity of added values of small-and-medium companies and small businesses as well as the service industry**
- Making use of know-how such as “kaizen activities” in manufacturing industry, we will promote a nation-wide movement to develop specific know-how, extracted for each category and type of industry, for the improvement of labor productivity for small-and-medium companies and small businesses as well as the service industry. This will be promoted through the activities of the “Council for Promotion of Nation-wide Movement for Improvement of Productivity” which was launched by public-private partnership in May this year.
 - The government will provide expert support for IT and robot introduction to more than 10,000 companies by the end of this fiscal year, aiming at the creation of new services and added value using data from SMB and SME in manufacturing industry. The government will also encourage initiatives to develop bases that allow businesses to receive consultation from the "Smart Manufacturing Support Team", which provides consultation on the improvement of manufacturing sites and also provide assistance in the utilization and introduction of IoT/robots, with an aim at setting up such bases at about 40 locations nationwide within two years. In addition, the government will promote measures to strengthen training in its effort to double the number of "system integrator" that proposes and supports SMEs and small businesses in their robot introduction to 30,000 by 2020.
 - In order to promote “smartification” of small-and-medium companies and small businesses while establishing a common platform, added values need to be increased and services need to be streamlined for many small-and-medium companies and small businesses by introducing IT cloud services. In order to achieve this, we will examine additional measures for promotion to

be implemented through “visualization” of effects of productivity improvement and security measures based on IT cloud services, coordination between services, corporate transactions (EDI), and promotion of improvement of work process. The examination will be implemented with a view to cooperating with the organizations supporting managerial innovation as well as the organizations promoting sectoral improvement of management based on the Act on Enhancement of Management of Small-and-Medium Enterprises. We will reach our conclusion by the end of this year.

- With a view to maximizing the effect of approaches for each category of industry based on the Act on Enhancement of Management of Small-and-Medium Enterprises, ministries concerned will coordinate with the Small and Medium Enterprise Agency. In order to enhance workability for each category of industry, they will systematically implement establishment of guidelines for the improvement of productivity appropriate to the features of each industry category as well as establishment of a system for coordination with and promotion to the leading trade associations for each industry category. Based on the follow-up on the circumstance of implementation, we will take institutional measures including establishment of basic principles based on the Act as well as business sectoral guidelines in the fields where productivity is low. We will back up the improvement of productivity of small-and-medium companies and small businesses, including the service industry, based on the “aggressive investment”. Next year, we aim to make a capital investment of 14 trillion yen, which is more than the amount invested before the collapse of Lehman Brothers.
- We need to address the issues of technical development of small-and-medium companies and small businesses and their accommodation to the 4th industrial revolution in their business development. For this purpose, we will review the framework of technical development (including the guidelines for the Act on Sophistication of Manufacturing by Small-and-Medium Enterprises) by the end of this fiscal year to further incorporate technical innovations such as IoT and AI and promote improvement of added values.
- With a view to increasing the added values of the service industry, we will prepare, by the end of this year, the “Standards on Omotenashi (hospitality) Skills (provisional title)”, which list the skills required of the human resources engaging in the service industry. We will spread these standards along with the “Authentication of Omotenashi Standards” that we aim to disseminate to 300,000 companies by 2020. We will also consider necessary corrective measures for the commercial practices whereby payment of appropriate remuneration for good services is hampered and the improvement of productivity of businesses is strongly constrained. We will draw a conclusion by the end of this fiscal year.
- Based on the Guidelines on the Subcontract Act, to which we added significant number of violation cases last December, Standards for Promotion concerning Subcontracting based on the Act on the Promotion of Subcontracting, where desirable transaction practices are added, as well as the requirement of payment of subcontract proceeds in cash as a rule, we will promote efforts on fair transactions and increasing of added values in line with the independent action plans of major industries established by the end of last fiscal year (for 8 categories of industry including automobile, electric appliance and electronics, truck, and construction). Through the investigations of investigators for subcontracting, we aim to steadily improve the trade terms of subcontractors. With respect to the categories of industry which have their independent action plans, we will provide more certifications for the organizations promoting improvement of

management for each business field, based on the Act on Enhancement of Management of Small-and-Medium Enterprises.

ii) Improvement of productivity, smooth revival and succession of businesses, and appropriate metabolism through the use of finance function and establishment of consistent support system

- We will encourage local financial institutions to more proactively engage in providing of growth capital to local companies, supporting of management (including human resources and know-how), and overall vitalization of local economy, in cooperation with the related organizations. We will further promote efforts on improvement of local financial institutions' judgment, as well as public-private funds and government financial institutions' efforts on providing growth capital that would encourage investment and loan by private financial institutions. • There will be enhanced provision of equity funds and hands-on support by funds jointly operated by local financial institutions and Regional Economy Vitalization Corporation of Japan (REVIC) or Development Bank of Japan (DBJ). More risk money will be provided based on cooperation between DBJ and local financial institutions. Know-how will be further transferred and more widely used through dispatching of professional staff from REVIC to local financial institutions. With the use of Japan Human Resources, there will also be enhanced support on human resources.
- We will accelerate provision of growth capital by promoting financing which is not too dependent on securities and guarantees and which is operated based on the evaluation of business potential by financial institutions. In order to promote efforts on the improvement of productivity of both financial institutions and businesses, we will promote dissemination to businesses of "Benchmark on Functions of Financial Intermediation", "Local Benchmark", and "Guidelines on Management Guarantee" through organizations that support small-and-medium companies, and encourage financial institutions to disclose the circumstance of their use thereof. The government will work as one to promote dissemination of these to and use thereof by both financial institutions and businesses.
- In addition to the traditional support on business transfer, providing support to business operators in early and systematic business succession (pre-support) and providing support to business successor in management innovation after they take over the business (post support), and so on, with the next 5 years set as the intensified implementation period. We will radically enhance measures by taking measures such as to newly introduce a method of assessment on business transfer which is easy to understand and make 50,000 assessments per year. With a support from the Business Transfer Support Center, we aim to have 2,000 M&As concluded per year (five times as many compared to the previous years). Based on the actual situations of increasingly diversifying business transfers of small-and-medium companies and small businesses, we will continue to consider actions to take in terms of business transfer systems while verifying the effects of tax systems for business transfer. Moreover, in order to secure growth of local communities, we will review the measures necessary for the realization of effective cooperation among small-and-medium companies and small businesses including business integration and reorganization. We will draw a conclusion by the end of this year.
- With respect to the credit guarantee system, based on the Small and Medium-sized Enterprise Credit Insurance Act and the Credit Guarantee Association Act the systems of which were both

amended this fiscal year, we will develop guidelines on realization of appropriate combination of proper financing and guaranteed financing. Workability will be secured through monitoring implemented by the Small and Medium Enterprise Agency and the Financial Services Agency on the use of guarantee by each guarantee association and financial institution. Measures will be taken starting this fiscal year to support promotion of efforts on managerial improvement of businesses at an early stage, including control of cash-flow and profitability.

- We will enhance cooperation, both at national and community levels, among commerce and industry associations, industry associations for small-and-medium enterprises such as chambers of commerce, strongholds for general support, organizations supporting managerial innovations, SME Business Rehabilitation Support Co-operative, and Business Transfer Support Centers. Best practices will be shared among them. We will establish action guidelines as well as evaluation methods to improve performance of strongholds for general support, and introduce a new system starting this fiscal year. We will improve problem-solving skills of commerce and industry associations as well as chambers of commerce, which are the most familiar supporting organizations, to provide effective support. The number of organizations supporting managerial innovations based on the Act on Enhancement of Management of Small-and-Medium Enterprises has increased to 26,000. We will realize and carry out by the end of this year measures for the maintenance and improvement of quality with respect to the activities of management support, while “visualizing” the specific management support of each organization from the perspective of businesses.
- Based on the analysis of factors for the success of startup support, we aim to strengthen cooperation among supporting organizations and discover potential founders. With this aim, we will consider future measures to take to support startups, with a view to reviewing the system of certification of business plans for the startup support. We will draw a conclusion by the end of this fiscal year.
- Our goals are to vitalize local startups and improve business sustainability. For this purpose, we will promote cooperation among government financial institutions such as Japan Finance Corporation, local financial institutions, organizations that support small-and-medium companies, and local governments. With the aim of vitalizing startup finance provided along with managerial support before and after the establishment on a continuous basis, we will analyze, collect, and send out by the end of this fiscal year, best practices concerning the efforts on startup support network as well as financing scheme implemented in cooperation with local financial institutions.
- With a view to diffusing efforts on business continuation, the “System of Authentication of Entities Contributing to the Strengthening of the Country” was established last fiscal year, based on which companies that are making proactive efforts on the establishment of business continuation plan (BCP) are authenticated by a third party. Our goal is to achieve 400 authentications based on this system by the end of next fiscal year. With this aim, we will promote incentives for obtaining this authentication. Our actions for the promotion include, for example, encouraging of financial institutions to use this authentication when they provide financing related to BCP. This will be implemented through dissemination of know-how book to small-and-medium companies and small businesses pertaining to the establishment of BCP, as well as familiarization of and explanation to the financial institutions.

iii) Expansion of investment on and improvement of productivity of local core companies and growing companies, cultivation of human resources, and enhancement of efforts to win external demand

- We will take advantage of the Act on Promotion of Investment for the Future of Local Communities, which has been amended this fiscal year. With respect to the businesses that lead local economy by community-led local vitalization, we will adopt measures to focus on, which include: subsidies for the promotion of local recreation, tax systems, promotion of supply of risk money using the Regional Economy Vitalization Corporation of Japan (REVIC) and Organization for Small & Medium Enterprises and Regional Innovation, Japan, creation of new services using data, making data open that brings solutions to local challenges, regulatory exceptions, and establishment of strategies and development of market using professional human resources. We will develop more measures including new measures for support. In order to allow effective implementation, we need to identify local core companies which will be the candidates of the businesses leading local economy. For this purpose, we will select and publish about 2,000 companies by this summer, using a system that analyzes data on transactions in and outside of the communities (RESAS). Furthermore, establishing a collaboration framework among related ministries and agencies, for example, excavating projects in a collected effort therefrom, aiming at providing support to about 2,000 companies in 3 years.
- We will continue to promote measures where local industries, public sector, academy, and financial institutions act in integration. We will solicit proposals of innovative measures based on the perspective of local recreation. We will select those with best leadership and potential for horizontal development, then promote a system whereby such proposals are integrally supported by related ministries through subsidies for the promotion of local recreation, businesses that create circulation in local economy, and promotion of rural areas. This is how we aim to create new local communities through implementation of near-future technologies.
- Our goal is to vitalize shopping malls. We will categorize features and functions expected of local shopping malls and consider the ways of support according to the size and level. We will draw a conclusion by the end of this year. With the aim of vitalizing central urban zones, we will enhance coordination with the measures of local governments to develop urban areas.
- With respect to the core human resources for management and right-hand man, studying issues faced by companies that dispatch and accept human resources, workers and the market with a view to utilizing human resources of large companies and other entities with abundant latest knowledge, and reaching a certain level of conclusion by the end of this year regarding necessary implementation policies including incentives and acceptance know-how.
- In order to address the labor shortage that small-and-medium companies and small businesses are facing, we will provide support through diffusion of the “Guidelines for Small-and-Medium Companies and Small Businesses to Address Labor Shortage” (established by the Small and Medium Companies Agency in March 2017), promotion of system of consultation at the strongholds for general support, coordination with the prefectural labor bureaus, and promotion of use of employment-related subsidies. Also, creating model cases in the region to promote secondary businesses/dual jobs that will lead the securing of diverse human resources and the establishment of businesses. In order that the small-and-medium companies and small businesses may put into practice the “Implementation Plan for Work Style Reforms” (adopted by the Conference on Realization of Work Style Reforms in March 2017), including the actions

for the control of long working hours, we will implement necessary measures for support such as familiarization and development of a system for consultation.

- We will support development of programs and curricula in graduate schools and universities on hands-on management specialized in cultivation of management human resources for the service industry. For this purpose, we will set up about thirty departments, faculties, and courses by 2019. Moreover, through coordination with the world's top institutions of higher education, we will set up in Japan specialized international education programs in early 2020s in the field of food and tourism.
- With respect to the SME University, we will consider enhancing its functions. This includes expansion of training to improve access from local businesses as well as introduction of advanced hands-on programs. We will implement tests by the end of this fiscal year, and launch them next fiscal year.
- We aim to vitalize local communities by creating new services and products responsive to the aging of society. For this purpose, we will establish a platform by the end of this fiscal year where industries, public sector, academy, and financial institutions act in coordination to collect and analyze data as well as do demonstrations in model communities.
- We will consider more detailed assistance to the “New Big-Exporter Consortium”. In line with this, in relation to the support on overseas development such as matching by JETRO in the services field, we will develop new markets in Russia, Central/Eastern Europe, and Central/South America, provide support in the fields of healthcare and nursing care in emerging countries in Asia, as well as provide focused support in sports and IoT.
- With the aim of supporting overseas development of small-and-medium companies and small businesses, we will provide support on development of market using e-commerce for overseas as well as branding using foreign designers. We will draw a conclusion by the end of this fiscal year.

2. Development of Aggressive Agriculture, Forestry, and Fisheries

(1) Main progress status of KPI

《KPI》 Increase the ratio of farmland used by business farmers to 80% in the next 10 years (by 2023) (48.7% at the end of FY 2013)

=>At the end of FY 2016: 54.0%

《KPI》 Reduce the cost of rice production by business farmers by 40% in the next ten years (by 2023) compared with the national average cost in 2011, including through efforts by industry concerning farm inputs and distribution systems (rice produced in 2011: 16,001 yen/60 kg)

=>National average cost of rice production in 2015

- Individual farming* 11,397 yen/60 kg (reduction by 29%)

- Farming by incorporated organization** 11,996 yen/60 kg (reduction by 25%)

* Among certified farmers, individual farming management body (with rice-paddy acreage of more than 15ha), whose farming income from rice paddy cultivation per one farmer is equivalent to that from other industry.

** Organized farm management body (with rice-paddy acreage of 26ha on average) whose sales income from rice paddy cultivation is largest compared to that from other types of farming

《KPI》 Increase the number of corporate farmers four-fold from the 2010 level to 50,000 in the next 10 years (by 2023). (12,511 corporations in 2010)

=>2016: 20,800 corporations

《KPI》 Expand the market size of the so-called AFFrinnovation which means adding value to agricultural products, forest products, and fishery products in an innovative way, making new combinations, or creating a value chain, to 10 trillion yen in FY 2020

=>FY 2015: 5.5 trillion yen

《KPI》 Increase the export value of agricultural, forestry and fishery products and foods to one trillion yen by 2019 (449.7 billion yen in 2012)

=>2016: 750.2 billion yen

(2) Specific measures to be newly taken

As the industry of agriculture, forestry, and fishery is community-based, we will increase its productivity, maintain its status as a key industry and promote its development, thereby aiming to increase the income of those who are involved.

For this purpose, we will steadily put in place our efforts on reforms based on the “Japan Revitalization Strategy” and “Enhancement Program on Competitiveness of Agriculture” (adopted by the Head Office for the Industry of Agriculture, Forestry, and Fishery, and Creation of Local Vitality on November 29, 2016). At the same time, we will address environmental changes surrounding the industry of agriculture, forestry, and fishery, and further accelerate the enhancement of competitiveness of the industry. In this process, we aim to enhance our efforts on incorporation of external human resources and knowledge, improvement of added values for the entire value chain, and shifting to a data-based industry.

We will work on the following measures to realize these.

i) Strengthening of production sites

① Enhancement of functions of the Farmland Bank

- In order to enhance functions of the Farmland Bank (the Public Corporation for Farmland Consolidation to Core Farmers through Renting and Subleasing), we will promote the use of hilly and mountainous areas as well as fruits production areas, enhance coordination with administrative committee members who specialized to optimize farmland use, and streamline administrative procedures pertaining to the farmland consolidation. We will also follow up on these works.
- With respect to the land improvement business, we will focus on turning farmlands into large compartments fit for general use or into dry fields. In response to the smoother coordination realized between farm-field development business and the Institutions thanks to the amendment to the Land Improvement Act, we will promote development, accumulation, and intensification of farmland that is easy to use for those involved in agriculture.

② Reforms on rice policy

- Through our steady implementation of reforms on rice policy, we will develop an environment that enable farmers to choose their crops based on their management decision.
- We will abolish the directly-paid subsidy for rice as well as the allocation of the rice production quota by the government from the rice produced in 2018.
- We will promote efforts in and outside of Japan on development of new demands for rice, such as non-gluten rice powder.
- In the course of these reforms, we will review policies that would encourage further efforts and self-reliant managerial judgments while verifying the traditional policies.
- In terms of the improvement of productivity of rice for principal diet and feed, we will work in an efficient manner on accumulation and intensification of farmland to those engaging in agriculture, reduction of prices of production materials, and introduction of labor-saving

cultivation skills. We will also verify circumstances of cost reduction and improvement of yield amount per unit, and achieve the KPIs through PDCA cycle without fail.

③ Development of environment for fostering and securing management units

- We will follow up appropriately on the reforms related to the agricultural cooperatives and agricultural committees.
- In coordination with the local financial circles, we will promote incorporation of management, smooth succession of management, improvement of business management capability, and matching of human resources with other industries.
- We will launch Agricultural Management Seminar which provides the opportunity to learn business management in earnest while working on a farm, in around 20 prefectures in this fiscal year. We will also proceed with the examination for measures to strengthen the human resource capacity through utilization of foreign human resources, while taking into consideration the progress of the examination on acceptance of foreign human resources.
- Through inspection and improvement of financing based on business potential evaluation by Japan Finance Corporation and the like, we will promote financing that is independent from securities and guarantors.
- With respect to the agricultural business, we will review the system of guarantee to allow the credit guarantee system to be widely available upon financing from private financial institutions.
- The Government will establish revenue insurance, which covers their whole agricultural revenue and functions as their safety net, for farmers conducting business management properly.
- With an aim to reduce prices of agricultural production materials and strengthen international competitiveness of agricultural industry as well as industries related to agricultural production materials, we will promote restructuring of industries related to agricultural production materials. With respect to various legal systems and their operation pertaining to agricultural production materials, we will rationalise and streamline them while harmonising them with the international standards and ensuring safety of agricultural production materials.
- Our aim is to contribute to the further development and diversification of business farmers by establishing and operating various facilities and equipment that support agricultural production. For this purpose, we will examine the treatment of greenhouse for agriculture with regard to the Farmland Act. Further, we will consider measures for promotion of farming-type photovoltaic power generation that may contribute to the effective use of farmland and increase of farmers' income.
- We will consider measures to promote use of unclaimed quality farmland.

- We will steadily promote Japanese agricultural direct payment system. In addition, we will encourage voluntary efforts to increase income in hilly and mountainous areas, taking advantage of their features.
- With a view to promoting urban agriculture, we will establish a system concerning promotion of borrowing and lending of urban farmland.

④ **Incorporation of external human resources and knowledge**

- In order to promote the the AFFrinnovation(adding value to agricultural products, forest products, and fishery products in an innovative way, making new combinations, or creating a value chain.) and collaboration between SMEs and agriculture/forestry/fishery businesses, we will make use of economic organizations such as chambers of commerce and industry and chambers of commerce. We will promote nation-wide efforts on matching needs and seeds of those engaging in the industries of agriculture, forestry, fishery, as well as small-and-medium companies. Such efforts include cultivation of human resources, designing and development of new products, and market development.
- In cooperation with the financial circles, we will develop and diffuse cutting-edge model agriculture.
- Making use of the “Occasions for Accumulation and Use of Knowledge”, where specialists from other fields as well as those engaging in agriculture, forestry, and fishery participate to coordinate among industries, academy, and public sector, we will create hands-on technologies.
- We aim to implement advanced technologies on site smoothly and speedily through cultivation and support of human resources who serve as a bridge for the cutting-edge technologies as well as networking of research institutions.

ii) **Improvement of added values for the entire value chain**

① **Shift to agriculture based on diversified data**

- By the end of this year, we will launch the “Agricultural Data Platform ”, where we can share and use various data through coordination of different agricultural ICT systems, standardization of data to be shared, opening up and providing of information such as maps,weather, and agricultural data owned by public institutions.
- Our goal is to promote implementation of data-oriented agricultureusing the “Agricultural Data Platform”. For this purpose, we will cooperate with private enterprises to expand cases of use and create new services. We will also encourage participation of a wide range of entities, and aim to extend our efforts to the entire value chain from distribution to consumption.

- We will promote the use of artificial intelligence, IoT, big data, and robot technologies over the entire value chain in various fields including fruits, greenhouse horticulture, and animal and dairy husbandry. For this purpose, we will promote research and development as well as on-site demonstrations.
- In order to prevent leakage of data-based know-how of the industries of agriculture, forestry, and fishery, we will consider measures for the protection of intellectual properties.

② **Sophistication of value chain**

- With a view to implementing structural reforms in distribution and processing, we will promote restructuring of businesses and industries including radical streamlining of intermediary distribution, reviewing of standards for agricultural products, and reforms on production and distribution of milk and dairy products.
- For the streamlining of logistics for the agricultural products, we will work on palletization, joint transportation, and modal shift.
- We will radically review the Wholesale Market Act based on the changes in economic and social situations, and abolish any regulations that have no rational grounds any more.
- In coordination with businesses, consumers, and local governments, we will promote nation-wide movement on the reduction of food loss. Particularly, in order to reduce food loss at the levels of retail and consumption, we will promote efforts on demand forecasting and streamlining of logistics based on the coordination of food retailing industry and catering industry with other categories of industry (such as IoT and weather).

③ **Promotion of AFFrinnovation**

- Our aim is to smoothly address diversified on-site needs concerning the AFFrinnovation, such as development of inbound products and facilities for export. For this purpose, we will promote measures to support the AFFrinnovation in a comprehensive manner, including intensification and reorganization of related measures.
- Taking advantage of the system of direct investment to the agricultural corporations we adopted this May, we will promote the use of the Agriculture, Forestry and Fisheries Fund for Innovation, Value-chain and Expansion Japan in coordination with the Japan Finance Corporation.

④ **Strategic promotion relating to standards, authentication, and intellectual properties**

- In order to make Japanese products more appealing, we will strategically establish and utilize Japan Agricultural Standard (JAS), and standardize them internationally.
- We will promote the registration of geographical indication (GI). Moreover, by protecting GIs

through international agreements, we aim to protect brand values overseas of high quality Japanese agricultural products overseas. In addition, we will also encourage the regional efforts to create brand products.

- Our goals are to increase export, and expand Japanese market, of Japanese products of agriculture, forestry, and fishery, taking opportunity of Olympic and Paralympic Games Tokyo 2020. For this purpose, we will expand implementation of international-standard GAP (Good Agricultural Practice) on production sites and obtaining of certification thereof, diffuse and spread sustainable agriculture such as organic agriculture, institutionalize food hygiene control based on HACCP (a system whereby hazards relating to food manufacturing etc. are analyzed and critical control points are monitored and recorded), and diffuse forest-certified lumber. Further, with respect to the systems on certification of Japanese GAP, food safety management standards based on HACCP, and marine eco-labels, we will promote efforts of private entities for their diffusion and international benchmark as well as providing human resource development system which build capability of discussing international standards.
- We will promote development of breeding high quality plant varieties. Particularly, we promote registration of Japanese high quality seed and seedlings in overseas, and protect international competitiveness of Japanese agricultural products.

⑤ **Enhancement of the food labelling system**

- With the aim to contribute to consumers' choice, we will advance the introduction of a new labelling system that requires all processed foods to be labelled with the places of origin of the heaviest ingredient in the final products.

⑥ **Promotion of use of wild game**

- In order to prevent bird and animal damage, we will enhance harvest of harmful birds and animals. With the aim of increasing local income through the effective use of harvested birds and animals, we will develop demands for wild game while developing supply systems for safe and secure wild game, including cultivation of human resources and introduction of rules on distribution. At the same time, we will set up about twelve model districts across Japan next fiscal year where birds and animals are harvested, transported, and processed.

iii) **Promotion of export**

- Based on the “Strategy to Strengthen Export Capabilities of the Agricultural, Forestry and Fisheries Industries” (adopted by the Headquarters on Creating Dynamism through Agriculture, Forestry, and Fisheries and Local Communities on May 19, 2016) and “Development Program on Export Infrastructure for Products of Agriculture, Forestry, and

Fishery” (adopted by the Headquarters on Creating Dynamism through Agriculture, Forestry, and Fisheries and Local Communities on November 29, 2016), we will steadily put in place efforts on the promotion of export.

- Centered on the Japan Food Product Overseas Promotion Center (JFOODO), we will grasp detailed demands, promote branding integrated with Japanese food culture, and provide sales support aimed at establishing continuous commercial distribution. We will also promote market development for souvenirs together with our inbound tourist measures.

iv) Turning forestry into growth industry and appropriate management of forest

- For the purpose of turning forestry into growth industry to increase income from forestry as well as promoting appropriate management of forest resources, we will consider a new scheme that the management of forests can be consolidated by highly-motivated forestry practitioners who manage forests sustainably, and the management of forests where the above approach is not possible can be delegated to municipalities. We will finalize consideration of the new scheme by the end of the year. The consideration of new scheme will take place along with the consideration on forest environment tax (provisional name), which has been listed in the Outline of Amendment to the Tax System FY 2017 prepared by the ruling party as the financial resources for the maintenance of forest led by municipalities.
- In order to coordinate and consolidate forestry practices, we will promote a forest land register/ledger. In addition, using the geospatial information (G space information) and ICT such as cloud as well as remote sensing technologies, we will promote grasping the condition of resources and boundaries of forest estates.
- Taking advantage of ICT, information on supply and demand will be shared among logproducers, wood manufactures, and demanders, and we will promote supplying of wood just in time.
- For the purpose of increasing demand for wood, we will reduce the cost of CLT (cross laminated timber) by mass production and promote the use thereof to medium to high buildings. We will also promote the thermal use of woody biomass for “local ecosystem”. Moreover, we will work on the research and development of cellulose nanofiber and lignin aimed at international standardization and commercialization.

v) Turning fishery into growing industry and development of resources management

- Our goals are to control quantity and enhance management of fishery resources to increase income from fishery as well as turning fishery into growing industry. We will review the measures required to strongly promote these, including the consideration on related laws and

regulations.

- For the purpose of improving the evaluation accuracy of resources, we will make use of ICT to set up a system to accumulate, analyze, and provide in integrated manner mass information concerning resources, fish catch, and weather.
- Based on the circumstance of development of infrastructure for high-speed marine communications, we will review effective diffusion of high-speed communications for fishing vessels.
- We will promote development and diffusion of ICT to realize fishery which is not dependent on experience and hunch.
- Through a comprehensive review on transactions of fishery products and how logistics should be as well as the use of ICT, we will establish a system whereby goods are delivered effectively to demanders who find the highest value in them.

3. Tourism, Sports, Culture, and Art

(1) Main progress status of KPI

《KPI》 We aim to increase the number of international visitors to Japan to 40 million in 2020 and 60 million in 2030.

=> 2016: 24.04 million (8.36 million in 2012)

《KPI》 We aim to increase the amount of consumption by international visitors to Japan to 8 trillion yen in 2020 and 15 trillion yen in 2030.

=> 2016: 3 trillion and 747.6 billion yen (1 trillion and 84.6 billion yen in 2012)

《KPI》 We aim to expand the market size for sports to 10 trillion yen by 2020 and 15 trillion yen by 2025 (5.5 trillion yen in 2015)

=> 5.5 trillion yen (2015)

《KPI》 We will establish twenty more stadia/arenas across Japan by 2025 as interaction bases where diversified generations get together

* A KPI newly adopted this fiscal year

《KPI》 We aim to expand the cultural GDP to 18 trillion yen by 2025 (about 3% of GDP)

=> 2015: 8.8 trillion yen (8.7 trillion yen in 2014)

(2) Specific measures to be newly taken

We need to create a virtuous cycle where local industries with high business potential as well as quality employment and wages further attract investment and human resources to the communities. With this aim, we will support the growth of fields that take advantage of local resources and appeals, including tourism, sports, culture, and art from which we can expect ripple effects to the local economy.

Tourism is a trump card for “local recreation”, and it is the mainstay of growth strategy for the achievement of GDP in the amount of 600 trillion yen. For this reason, with the wide range of economic ripple effect of tourism in mind, we aim to promote tourism with the double pillars of “inbound” and “tourism in Japan”. We will also disperse and increase Japanese and international visitors concentrating on particular areas all over Japan.

In order to achieve this, we will work on realization of tourism-developed country based on the “Tourist Visions that Support Japan of Tomorrow” (adopted by the Framework Conference on Tourist Visions that Support Japan of Tomorrow on March 30, 2016) and the “Basic Plan on Promotion of Tourism-oriented Country” (adopted by the Cabinet on March 28, 2017) based thereon, as well as “Program on Realization of Tourist Visions 2017 (Action Program 2017 for the Realization of Tourist Visions)” (adopted by the Ministerial Conference on Promotion of Tourism-oriented Country on May 30, 2017). In this course, we will organize the “Strategic Conference on Promotion of Tourist Visions for District Blocs” in each district bloc, with the local branch offices and bureaus of relevant ministries added as members, to effectively promote

the related measures on a cross-ministerial basis.

Vitalization of local communities centered on sports has proceeded from the framework phase to embodiment phase. With the accelerating trend across Japan on reforms of stadia and arenas, we aim to use attractive stadia and arenas that use private investment and knowledge as the cores of local communities to provide a spark for the local vitalization. For this purpose, we will adopt various measures for support on a cross-governmental basis. As a legacy of the 2020 Tokyo Olympic/Paralympic Games, we aim to expand the population of sports and turn the sports industry to our key industry.

Our goals are to vitalize local communities and improve brand powers by using resources of art and culture through cooperation of industries, academy, and public sector as well as to create social/economic values for culture with a focus on contents. For this purpose, we will enhance the functions of the Agency for Cultural Affairs while expanding the economic scale of culture and art industry (cultural GDP) and economic ripple effects of using resources of art and culture. Accordingly, we will promote to develop into a “lucrative culture”, whereby culture and art, tourism, and industries work together to create new values.

We will also adopt measures to spur spirits of consumption. The government and private sector will work together to locally establish and the “premium Friday” through horizontal development of successful cases. We will also change life styles by encouraging to obtain vacation thanks to the Work Style Reforms as well as providing products and services with high added values.

In relation to the efforts across the communities involving local governments and local enterprises, we will support businesses that lead local economy using all available policies and measures such as laws, budget, tax measures, and financial functions. We will also increase the appeals of local resources such as tourism, sports, art, and culture as well as increase the added values and productivity of the service industry. Accordingly, we will expand the population that is interactive beyond generations, and realize the communities where more people in Japan and from overseas visit repeatedly over a long period of time.

i) Tourism

① Enhance the appeal of tourist resources to make them a basis of local recreation

A) Bold opening of attractive public facilities and infrastructures

- The Guest Houses in Akasaka and Kyoto will be open to public throughout the year. We will also promote efforts to increase appeals such as opening them during night time depending on seasons. Opening on special occasions will also be considered. In order to build facilities that may invite tourism in the park in front of the Guest House in Akasaka, such as cafes, we will launch designing during this fiscal year.
- There will be more guided tours with larger number of visitors per day at Katsura Imperial Villa, and guided tour in English will be newly implemented exclusively for international visitors.
- Based on the opinions of intellectuals, we will continue to review the measures to address the increase in the cost of maintenance and management that will accompany the expanded scope of opening of public facilities as well as the charging of fees to further improve the level of services.

B) Blossoming of cultural properties as tourist resources

- We will implement overall development of integrated cultural properties of local communities (not of a single cultural property) as well as provide illustrations in multiple languages using professional native human resources through about one thousand businesses. About two hundred tourist bases will be established which focus on cultural properties including Japanese heritages. We will focus our support on 4 areas, which will be the models for creating tourist bases through their good efforts. Moreover, we will use VR technologies, accumulate know-how for the preservation and use of national treasures through promotion of locally-held exhibitions, and improve procedures such as bidding for the repairing of cultural properties.
- C) Branding of national parks as the “National Parks”
- With respect to the 8 national parks selected under the “Project for Promoting Full Enjoyment of National Parks”, we will make maximum use of the knowledge and funds of the private sector through public offers or the like. We will work on attracting quality hotels, expanding activities, cultivating skilled guides, setting up private tour offices in visitor centers, creating universal design for sceneries, establishing facilities friendly for international visitors, introduction of systems whereby users bear the costs of maintenance and management of facilities as well as nature preservation. Further, we will send out information overseas and develop indices focused on “quality” such as the amount of consumption. The cases and know-how of the 8 national parks will be horizontally developed by providing the information to other parks.
- D) Increase the appeals of tourist sites by preserving and using tourist asset with superior sceneries
- We will promote establishment of plans on sceneries of major tourist sites across Japan by 2020. We will also focus our support on 10 “Model Districts for Development of Towns based on Renovated Sceneries”.
 - We will promote undergrounding of electric cables based on the Act on Promotion of Disappearance of Utility Poles and the Act on Maintenance and Improvement of Traditional Scenery in Certain Districts, using PFI methods as well.
- E) Establishment and creation of rural areas for stay
- We will provide support for the establishment of systems for rural-tourism, development of experience programs for agriculture, forestry, and fishery, and renovation of Japanese traditional houses. We will create 500 areas by 2020 where they are equipped with systems that provide, as a business, trips to rural areas for accommodation. Further, we will work on the projects including “Savor Japan” and “Japanese Nationally Important Agricultural Heritage Systems (J-NIAHS)”.
- F) Promotion of development of tourist towns using historical resources including Japanese traditional houses
- Efforts will be made on renovation into quality accommodation facilities of historical resources in the communities including Japanese traditional houses, and regenerate and use them all as the core of development of tourist towns. The development will be made by 2020 in two hundred areas across Japan, with a focus on preservation districts of important historic buildings and rural areas.
- G) Development of new tourist resources
- With a view to establishing a new brand called “A Delightful Country—Japan”, we will promote night entertainments, develop new contents for international visitors including traditional entertainments, multilingualize dramas and sports events, set spots for international visitors,

and develop systems for receiving night openings. We will set up a public-private session to enhance transmission of information using the SNS of these contents. In addition, with respect to the national museums, we will promote increasing of educational programs where we can participate and experience, multilingualization, and extension of opening hours.

H) Development of tourist demands in local shopping malls and increasing of consumption of traditional crafts

- In order to expand by 2020 the production areas of traditional crafts which can receive international visitors to over a hundred, we will invite foreign intellectuals to the production areas of traditional crafts.

I) Improvement of wide-area tour routes to reach the global standards

- With respect to the wide-area tour route formation plans for 11 regional areas of Japan, we will enhance contents for visitors who stay, with a focus on model courses for each. We will discover the appeals and challenges of communities and make proposals for measures to take, while providing support for the improvement of abilities of related people in the regions.
- We will network the regions that are working on the theme-based tourism such as roads, shrines and temples, sake breweries, Japanese traditional houses, animations, and bicycle riding to enhance transmission of information and attract visitors to the local communities.

J) Promotion of formation of “Tourism Nation Showcase ”

- We will promote private investment to Kushiro City, Kanazawa City, and Nagasaki City on their “Tourism Nation Showcase Implementation Plans” by setting up opportunities for the matching between the 3 cities and private businesses. Relevant ministries and agencies will cooperate to provide prioritized support, and will speedily work on necessary regulatory reforms.

K) Reconstruction of tourism in Tohoku

- With the aim of increasing the number of international visitors taking up lodgings in the 6 Tohoku prefectures to 1.5 million in 2020 (triple the number of 2015), we will brush up tourist resources, develop environment for receiving visitors, promote the formation of wide-area tour routes, regenerate and vitalize ryokan (Japanese-style hotels), and advertise through destination campaigns. In addition, we will provide focused support to Sendai City and the peripheral areas including Sendai Airport (“Urban Areas to be Reconstructed to become Tourist Bases”), as well as implement advertisement in Japan and business of regeneration of educational travel for Fukushima Prefecture.

② Innovate tourist industry and enhance its international competitiveness to make it into the key industry of Japan

A) Comprehensive review of regulations and systems related to tourism

- Through the revision of the Licensed Guide Interpreters Act and the Travel Agency Act, we will enable paid guiding acts across Japan by persons other than the license guide interpreters, as well as maintain and improve the quality of license guide interpreters. With the introduction of registration system for land operators, we will make their services more appropriate. At the same time, we will develop a system whereby community-based businesses are able to design and provide community-based optional tours..
- We will improve productivity by using ICT and through coordination among accommodation facilities. In addition, we will also promote change in business models of lodging industry.

- B) Measures for services of renting private homes
- Based on the Act on Home Lodging Business, we will set up systems of notification concerning those operating a business of home lodging as well as registration concerning those operating businesses of home lodging management and home lodging brokerage to secure appropriate home lodging services.
- C) Cultivation and enhancement of managerial level human resources based on the needs of tourism industries
- Our goal is to establish, starting in next fiscal year, permanent education bases of managerial level human resources in the graduate school level (including MBA) of Hitotsubashi University and the University of Kyoto. For this purpose, we will develop hands-on and professional education programs. Further, we will promote establishment of curriculum policies to transform curricula of tourism faculties of existing universities. Through the revision of the Act on Partial Amendment to the School Education Act, we will establish universities for specialists that engage in hands-on vocational education.
- D) Immediate elimination of shortage in accommodation facilities and provision of accommodation facilities meeting diversified needs
- Our goal is to provide accommodation facilities across Japan (including local communities) that meet diversified needs, including those that provide lodging experiences unique to Japan as well as quality services. For this purpose, we will promote investment to accommodation facilities through public-private funds, as well as investment/financing and know-how support integrated with the town development provided by related organizations.
- E) Formation and cultivation of world class DMOs
- In order to form 100 world class DMOs nationwide by 2020, we will provide comprehensive support using one-stop consultation for candidate corporations of Japanese DMOs, enhancing functions of the “DMO Net”, and using “subsidy for promotion of local recreation”.
 - Starting next January, we will implement a full-fledged statistics survey concerning the number of visitors and amount of travel consumption per prefecture.
- F) Continuous development of “Funds for Recreation and Vitalization of Tourist Sites”
- We will establish a system whereby we can stably and continuously provide in and after next fiscal year and on the functions of Regional Economy Vitalization Corporation of Japan (REVIC) concerning investment know-how and human resources support pertaining to the town development for tourism.
- G) Consider funding sources to implement the next phase of development of the tourism sector
- We are in a situation where recent expanding inbound tourism has been affecting our economy, society, and people’s life, and tourism is becoming the mainstay of economic growth strategy and regional revitalization strategy. Based on this situation, we will review measures to secure funding sources for the nation which will be necessary to implement tourism policy measures at a high level in response to the tourism demand which will grow further in the future.
 - Seek to secure additional funding sources by sharing the burden with the beneficiaries of a growing tourism sector, taking into account the experience of other advanced tourism countries.
- H) Strategic enhancement of promotion on visits to Japan, and better dissemination of wide variety of tourism attractions of Japan
- In order to bring more international visitors who are not interested in visiting Japan, including high-end tourists and consumers in Europe, North America and Australia, we will execute

localized tourism marketing and promotion based on strategies unique to each target country collaborating with Japanese diplomatic establishments abroad and private sectors. In parallel, we will strengthen JNTO's capacity to identify consumer needs in each target country using digital marketing, by incorporating suggestions by advisory board consisting of foreign intellectuals, and by employing marketing and ICT professionals. We will completely renovate JNTO global website using feedbacks from foreign experts and will promote SNS marketing as well as utilization of influential bloggers overseas. We will help local communities improve their promotion skills by establishing new department in JNTO that support local governments and destination marketing organizations (DMOs) by providing cooperation and consulting services. In the course of implementation of promotion, we will make sure to control deliverables and reflect them to measures.

- Through the promotion of “Host Town”, we will enhance transmission of information overseas.
- I) Promotion to attract MICE
 - At the “Liaison Meeting for Promotion of MICE by Related Ministries”, we will compile cross-governmental measures for support as action plans by the end of this fiscal year. We will raise the level of attraction and organizing power for MICE to the world level with a focus on “Global MICE Cities”, and also provide support to promote holding of conferences at unique venues.
- J) Strategic relaxing of visa
 - From among twenty countries and regions focused for the business of promotion of visits to Japan, there are 5 countries visits to Japan from which require a visa (China, the Philippines, Viet Nam, India, and Russia). The government will work as a whole to relax visa in a proactive manner in conjunction with the improvement of awareness through promotion as well as the development of environment for receiving visitors.

③ Realize an environment where all travelers can enjoy sightseeing comfortably and free from stress

- A) Realization of innovative immigration control using cutting-edge technologies
 - With an aim to keeping the waiting time for the immigration control at the airport under twenty minutes, we will review the increasing of airports that introduce BioCart, early realization of pre-clearance, introduction of face authentication technology, and expanded use of automatic gates for embarkation procedure by international visitors. We will also prepare for the introduction of a system to publish time required for the disembarkation procedures at Narita and Kansai Airports.
 - We will introduce body scanners into major airports across Japan by 2019, and introduce other advanced equipment for security check by 2020.
- B) Radical improvement of cashless environment (including promotion of installation of ATMs responsive to cards issued overseas)
 - Our goal is to install by 2020 ATMs responsive to cards issued overseas by 3 mega banks in about half of all bases where ATMs are installed (approximately 3,000 in total). We will encourage the 3 mega banks to make steady efforts to set up most of them by the end of next year.
 - By 2020, we aim to realize “100% acceptance of credit card payment” and “100%

IC-correspondent payment terminal” in major commercial facilities, accommodation facilities, and tourist sites visited by international visitors. We will encourage installation of terminals for payment.

C) Radical improvement of communications environment as well as realization of environment where everyone can walk alone safely

- By the end of FY 2019, we will promote development of Wi-Fi environment in approximately thirty thousand bases for disaster prevention. We will also establish a system of coordination of authentication for over two hundred thousand places including existing Wi-Fi access points. We also aim to eliminate by 2020 sections where we cannot use mobile phones in the tunnels of Shinkansen.
- Based on the “Global Communications Plan” (published by the Ministry of Internal Affairs and Communications on April 11, 2014), we will research and develop a multilingual speech translation system and implement demonstration and experiment for its diffusion and expansion.
- With an aim of increasing information centers for international visitors certified by JNTO to around one thousand by the end of this fiscal year, we will promote establishment of information centers such as in accommodation facilities. We will also develop guidance facilities to provide detail information and learning opportunities at tourist sites, as well as westernize public toilets near tourist sites.
- In order to attract visitors from Muslim travel market, we will establish a cross-ministerial action plan by the end of this fiscal year.
- Through the efforts based on the Act on Promotion of Use of Bicycle, we will create a safe and comfortable environment for the cyclists in and outside of Japan.

D) Improvement of a system of acceptance of international patients fully responsive to emergency cases

- We will accelerate our target of establishing one hundred “medical institutions with developed system of acceptance of international patients” (that also have reception services for international visitors) by 2020 through our support of assigning medical interpreters, and aim to achieve this by the end of this fiscal year. We will further improve “medical institutions that accept international visitors to Japan” (approximately 900) that are able to examine in foreign languages.

E) Full equipment of “Local Recreation Corridor” using high-speed transportation network

- We will improve further awareness of the “Japan Rail Pass” that we have been able to purchase in Japan since March this year, and develop an environment where it is easy for international visitors to buy it. We also aim to improve convenience of access to tourist sites through creation of universal tickets for transportation and sending of information related thereto.
- We will improve “numbering of highways” and descriptions of road signs, to be mostly completed by 2020. Highway companies will cooperate with the national and local governments and rental car businesses to develop designed discounts for the use of local highways including a driving pass for excursion.
- We will make use of the “paid tourist passenger transportation business for personal use”, which is an exceptional measure adopted by the Road Transportation Act based on Article 16-2 of the Act on Special Districts for National Strategy.

F) Enhancement of gateway functions of local airports

- We will provide support to the “airports that support attraction of visitors to Japan” by discounting/subsidizing landing fee and supporting the development of CIQ facilities. We will also promote new flight services and increase the number of flights as well as sophisticate the accepting environment of flight passengers. In addition, in order to realize integral operation of multiple airports in Hokkaido (such as concession), we will implement market sounding by the end of this year.
- We will increase the processing capacity of Haneda and Narita Airports to forty thousand landing and takeoff each by 2020. At the Haneda Airport, they will develop facilities necessary for reviewing the flight routes, promote environmental measures, provide careful information, and expand terminal buildings in cooperation with the private sector. The capacity of landing and takeoff to be increased will focus on routes that are important to strategically promote achievement of targets of number of international visitors to Japan as well as routes with high demand for direct flight from Japan in terms of enhancement of international competitiveness. We will prepare for the discussion with related countries. At the Narita Airport, they will take into account the requests from local governments and consider on a speedy basis, together with related organizations, the development of the third runway and relaxing of restriction on night-time flights to further enhance functions.
- We will establish more spots available for parking of airplanes at the Haneda Airport, discuss among related parties for the Narita Airport, and aim to improve accepting environment of business jet planes in the metropolitan area.
- We will enhance functions of local hub airports by developing passengers terminals exclusive for LCC at the Chubu Airport, expansion of aprons at the New Chitose Airport and New Ishigaki Airport, establishment of new taxiways, and development of CIQ facilities.
- In order to make Narita and Haneda Airports the gateways to Japan that we can be proud of to the world, we will use liaison meetings with related parties to work on the improvement of access to and from the airports by railway and bus, as well as develop bases for the transmission of information using airports as gateways.

G) Further expansion of accepting of cruise ship

- We will promote development of mooring posts, fenders, and landing bridges, as well as support installation of mobile boarding bridges. We will realize “zero rejection” of port calls of cruise ships through provision of “matching” services by cruise ship companies and ports.
- We will promote use of a system of loan with no interest for the development of passenger terminal buildings by the private sector. We will amend a part of the Ports and Harbors Act to create bases for the international cruise by public-private coordination. This will be done through the establishment of an agreement that allows prioritized use of piers by cruise companies that invest in passenger terminal buildings.

H) Innovation of an environment for the use of public transportation

- Our goal is to enable online reservation in foreign languages for all Shinkansens. For this purpose, we will adjust with related railway businesses for the launch by this summer by Tokaido Sanyo Shinkansen and the early introduction by Kyushu Shinkansen. We will also promote establishment of Hands-Free Travel services at major transportation hubs. Furthermore, we will introduce barrier-free transportation, develop free public wireless LAN environment, and increase signs in multiple languages in railway stations, bus terminals, and passenger ship terminals.

I) Reforms on vacation time

- In order to secure time for adults and children to give attention to each other, we will newly set “kids week” for each region starting next fiscal year. Measures will be considered to take into account local circumstances and prevent confusion at educational scenes. We will spread days-off for schools by moving a part of the long vacation (such as school summer holidays) to week days during the terms. We will promote taking of paid vacation on the school days-off that have been spread, and secure various opportunities for activities on days-off. All of these will be promoted integrally by the government and the private sector.

J) Promotion of universal designs for the Olympics and Paralympics

- We will steadily promote the measures based on the “2020 Action Plan for the Universal Designs”

(adopted by the Meeting of related Ministries on Universal Designs 2020 on February 20, 2017). We will also review related systems including the Barrier-free Act. We will promote introduction of barrier-free cars for buses and taxis, make major railway stations and areas around tourist sites barrier-free, and make roads that connect competition venues and nearby stations entirely and continuously barrier-free.

ii) **Development of future for sports industry**

① **Vitalization of local communities focused on sports (implementation of the “Future Development Plan for Sports”)**

- We will work on the reforms where stadia and arenas, that will be the trigger for the vitalization of economy focused on sports, will be the bases for the festivity and creation of communities such as musical events and health development in addition to sports. More particularly, with a view to making stadia and arenas profit centers, we will establish plans for facility development and provide support aimed at public-private coordination. This will be done through dispatching of specialists in response to local needs, use of PPP/PFI including concession method aimed at effective development/operation of facilities, use of advanced technologies for images and delivery such as high-speed wireless LAN and 4K/8K aimed at improvement of facilities’ customer-attracting functions and convenience, use of the system under the Urban Park Act amended this year, promotion of introduction of private vitality through naming rights, and intensified support for businesses involving overall communities that lead local economy through the use of the Act on Promotion of Investment on the Future of Local Communities.
- With the aim of improving the rate for the children’s implementation of sports and through the improvement of quality of club activities instructions as well as creation of new businesses for sports instruction, we will work on the efforts aimed at cooperation between schools featuring the local communities and local sports organizations and enterprises, taking opportunity of the institutionalization of “club activities instructors”.
- The government as a whole will launch these efforts aimed at local vitalization focused on sports this year, and call this the “Development Plan for the Future of Sports”.

② **Enhancement of management ability of sports contents holders, promotion of establishment of new businesses**

- Our goal is to develop infrastructures aimed at enhancement of managerial human resources for

the sports-related organizations. For this purpose and with a view to establishing academic degree (sports MBA), we will promote our review in cooperation with sports organizations, universities, and research institutions to establish educational organizations focused on cultivation, matching, and research and development.

- With respect to the sports in universities, we aim to establish by the end of FY 2018 an across-the-university and across-the-competition controlling organization (Japanese NCAA) that aim to establish appropriate organizational operation/management and sound university sports business. For this purpose, we will establish an industries/academy/government coordination council and promote designing of systems. With respect to the establishment of departments as well as allocation of human resources that control and manage in a strategic and integrated manner the efforts on improvement of career creation in the field of sports in universities, local contribution, and fund-procurement ability, we will encourage one hundred universities to make the effort in the next 5 years.
- With respect to the researches on AI/IoT and big data in the field of sports as well as use of vital data, in order to promote demonstrations on the scenes of sports and commercialization, we will make a review aimed at the establishment of “Sports Open Innovation Platform (provisional name)” through coordination of sports organizations, enterprises, related ministries and agencies, and universities.
- We will establish and implement by the end of this year strategies for the promotion of vitalization and sustainment of “sports tourism” through public-private cooperation. We will also support efforts of “Local Sports Commission” made through coordination of local governments, sports organizations, and tourist industry, and promote further cooperation and integration in the fields of sports, culture and art, and tourism.
- With respect to the development of environment that allows athletes to concentrate on games and establishment of careers after their retirement, we will review in coordination with sports organizations and enterprises to make efforts appropriate for each athlete. We will also consider measures to support athletes’ careers that bridge between their active time and time after retirement. This includes dual career, re-learning, and expansion of opportunities to work at schools and communities.

③ Promotion of overseas development of sports

- In terms of overseas development of added values such as educational effect of sports contents unique to Japan (physical education, club activities, sports day, and town dojos) in correspondence with each community, with a view to coupling with international exchanges, we will review public-private strategies for the international cooperation on sports.
- Taking advantage of the fact that live broadcasting of sports has strength as contents, we aim to expand broadcasting rights business in the overseas areas. For this purpose, we will review strategic efforts including inbound promotion relating to sports leagues in Japan.

④ Improvement of rate of implementation of sports

- With respect to the improvement of rate of women playing sports, we will review the “Women Sports Campaign”, through which we send out messages to the nationals and a wide range of related people. We will draw a conclusion by around the end of this fiscal year.

- We will work with sports-related organizations with respect to the policies on targets and measures concerning the share of women executives and employees in sports-related organizations. We will draw a conclusion by around the end of this fiscal year.
- With the aim of improving the implementation rate of sports by disabled people, we will coordinate with sports-related organizations and financial circles to promote organization of sports events across Japan where disabled children can participate. We will also provide support to use all special-needs schools as local bases of sports by disabled people.

iii) Vitalization of economy using cultural and art resources

① Development of systems to further promote the use of culture and art resources

- Our goal is to create social and economic values through inheriting, developing and creating cultural stock that we are proud of. For this purpose, we need to expand the economic size (cultural GDP) of culture and art industry as well as economic ripple effect based on the use of culture and art resources. We will thus establish by the end of this year the “Strategy on Culture and Economy (provisional name)” through coordination of related ministries and agencies.
- In order to create new demand using culture and art resources and create innovation, we will improve quality of curators, cultivate advanced producers, and strategically cultivate and secure various human resources.
- In order to promote further opening and use of cultural properties, we will respond to the consultations from local governments and museums to the owners/managers of cultural properties in an integrate manner, as well as develop functions of centers that send out information concerning opening and use of cultural properties. In addition, we will review the system of protection of cultural properties based on the perspective of sustainable use. We will repair, develop, fine dress cultural properties at appropriate intervals as well as prevent them from disasters and theft. We will also diffuse best practices concerning unique venues and multilingual interpretations, as well as review promotion of openings using technologies such as VR and “clone cultural properties” (replication of cultural properties with high precision).

② Vitalization of communities focused on culture and art resources and improvement of brand power

- Taking “Ueno Cultural Park” as a model, related ministries and agencies will cooperate to provide focused support on the overall and integrated development of local cultural resources for the creation of a cultural cluster (district where culture accumulates). We will work on coordination and enhancement of advice, review, and evaluation (arts council functions) by specialists on the measures of support of the national and local governments for culture and art, as well as improvement of brand power of Japanese heritages. We will also establish guidelines by the end of this fiscal year to encourage management reforms aimed at promotion of multilingualization and night-time opening of cultural facilities.
- In order to promote innovation, we will support establishment of a platform by high-level educational institutions, such as universities, working on education on advanced designs, and review model educational curricula. We also aim for cross-industry/academy coordination that include local universities, and aim to cultivate human resources for advanced designs. We will also review ways to protect and use designs that contribute to the brand power of enterprises.

- By expanding authenticated organizations under the “beyond2020 Program”, we will develop across Japan the “Cultural Program” that sends out the appeals of Japanese culture inward and outward, and realize establishment of local vitalization and inclusive society. Further, through the participation of cultural figures active overseas in the front lines as well as the use of diplomatic establishment overseas and Japan House, we will enhance strategic transmission of Japanese culture in and outside of Japan, and aim to establish Japan brand based on culture.
- We will promote development of systems that promote implementation of festivals for international cultural exchanges. In addition, by 2020, we will enhance transmission by “ambassadors of cultural exchange” who will be dispatched overseas, and strongly promote interactive cultural exchanges including inviting of foreign artists and famous foreign people. With a view to expanding the disabled people’s opportunities for culture and art activities, we will promote efforts to provide explanations concerning culture and art works, enhance creative activities, develop environment for the use of facilities, and commercialize excellent art works and give back profits therefrom to creators and/or facilities.

③ **Enhancement of culture and art industry with a focus on contents**

- With a view to developing new market for regional contents, we will expand government-private dialogues with each country aimed at developing contents markets in Asia that have been rapidly expanding. We will also organize events for business matching in and outside of Japan, as well as develop guidelines together with industry associations for the use of advanced contents technologies such as VR/AR.
- We will promote contents industry and tourism, as well as enhance functions of transmitting the media art field in and outside of Japan, including films, manga, animations, and games that lead to local recreation.
- In order to integrate the intellectual resources and culture and art resources of Japan and create new businesses and services, we will promote digital archiving in each field as well as establishment of an across-the-field integrated portal centered on the National Diet Library.

IV Taking in Overseas Growing Markets

(1) Main progress status of KPI

《KPI》 Aim to raise FTA ratio to 70% (2012: 18.9%) by 2018

=> As of the end of FY 2016: 40.0%

- * The share of trade value in total Japanese trade value with countries with which EPA/FTA has entered into force or signed as of the end of FY 2016 (based on 2016 trade value)
- * Negotiations on 6 EPAs are under way with a view to an early conclusion (If the share includes those 6 EPAs, it would be 85%)

《KPI》 Double the inward foreign direct investment (FDI) stocks to ¥35 trillion by 2020 (as of the end of 2012: ¥19.2 trillion)

=> As of the end of 2016: ¥27.8 trillion

《KPI》 Double the value of export by SMEs by 2020 compared with the level of 2010

=> FY 2014: ¥14.9 trillion (FY 2010: ¥12.6 trillion)

《KPI》 Raise overseas infrastructure project orders received to approximately ¥30 trillion by 2020 (2010: approximately ¥10 trillion)

=> 2015: approximately ¥20 trillion

- * KPI figures include “income from business investments on overseas infrastructure, etc”.

《KPI》 Raise overseas sales of broadcast contents to ¥50 billion by 2020

=> FY 2015: ¥28.85 billion

- * The previous KPI (“Triple overseas sales of broadcast contents by FY 2018 from the FY 2010 level”) has been achieved by the performance in FY 2015. (FY 2010: ¥6.63 billion, target: approximately ¥20 billion)

(2) Specific measures to be newly taken

The Government will promote overseas expansion of Japanese companies' vitality, and will seize overseas growing markets that continue to expand primarily in emerging countries, to expand virtuous cycle by incorporating benefits therefrom into regions of Japan.

In order to achieve this target, the Government will promote overseas business expansion utilizing advanced technologies of the Society 5.0 era including IoT, where Japanese companies possess competitive advantage, in order to support Japanese companies including SMEs which have not been able to begin overseas business expansion although they have those technologies. In addition, in conducting such initiatives as promoting inward foreign direct investment or Cool Japan, the Government will take measures to increase attraction of Japan.

Specifically, the Government will consider and promote each of the following: i) as part of the “measures to support overseas expansion of Japanese companies”, expansion of infrastructure exports, establishment of international rules on trade and investment, establishment of common international understanding and development of rules that contribute to promote use of data, support for SMEs, and initiatives to actively accept to utilize highly-skilled foreign professionals in the cutting-edge fields, and ii) as part of the “measures to utilize attraction of Japan”,

enhancement of initiatives to promote inward foreign direct investment, promotion of Cool Japan, development and promotion of clean and attractive “Japanese IR” (Integrated Resort), invitation of 2025 World Exposition, and taking in growing markets through collaboration with communities of Japanese immigrants and descendants (“Nikkei”) overseas.

i) Supporting overseas business expansion of Japanese companies

① Expansion of infrastructure exports

- In order to realize economic growth by exporting infrastructure and enhance competitiveness of Japanese companies, aiming to export infrastructures that keep winning over the future to differentiate from other competing countries, the Government and the private sector will jointly promote priority measures on the “Infrastructure Export Strategy (Revised Edition FY 2017)” (approved by the Ministerial Meeting on Strategy relating Infrastructure Exports and Economic Cooperation on May 29, 2017), with sufficient consideration on safety measures including against terrorism. The Government will also pay attention to the enhancement of regional connectivity under the “Free and Open Indo-Pacific Strategy”.
- In the key industries and important fields such as electricity, railways, and information and communications, while keeping in mind the utilization of advanced ICT including IoT and AI, the Government will establish strategies for overseas business expansion, which indicate the direction for the Japanese infrastructure exporting industries to take in order to enhance their competitiveness over the future.
- With a view to developing the infrastructure exports based on these strategies, the Government will promote sales pitches, further utilize supportive policy tools, and make the following initiatives:
 - While disseminating the concept of “quality infrastructure investment” globally, in order that the “quality” of infrastructures is appropriately evaluated, the Government will continuously support improvement and enhancement of partner countries’ bidding systems. In the course of doing this, the Government will promote understanding and sharing information concerning the necessity of appropriate maintenance and replacement.
 - In order to expand opportunities for Japanese companies to win orders, the Government will take measures such as promoting “overall development” (creation and improvement of cities, regional development, development of corridors and hubs), establishing development plans that are the “most upstream phase” and reviewing existing plans, providing assistance to improve legal systems, and promoting human resource development, as well as working on enhancement of abilities to make proposal and implement PPP projects preferred by emerging countries.
 - In addition, the Government will promote establishment of systems that enhance further infrastructure exports including the following: a) enhancement of public and private consulting functions such as consultation points on infrastructure projects and supporting of legal aspects, b) promotion of measures targeting third party countries in cooperation with other countries, aimed at further enhancement of competitiveness of Japanese companies upon entering into new markets, and c) consideration of institutional measures that enable more full-fledged implementation by public institutions and companies from project creation to operation, maintenance, and management after the completion of

construction in the fields of railway, airport, cities/home, and sewerage.

② Promoting Economic partnership negotiations, and conclusion/amendment of investment-related agreements and tax treaties

- In order to expand free and fair markets in Asia-Pacific region and across the world, the Government will push forward to achieve entry into force of the TPP Agreement which Japan has concluded, and continue discussions on expansion of its member countries/regions. The Government will also promote negotiations on other economic partnerships strategically and expeditiously, including Japan-EU EPA, RCEP, and Japan-China-Republic of Korea FTA. Playing central roles in building such wide-area new economic order, Japan, as the standard-bearer of free trade, aim to take the lead in establishing comprehensive, balanced, and high-level global rules. The Government will implement cooperation with ASEAN to realize inclusive and innovative growth in Asian regions, and high-quality RCEP.
- Based on the “Action Plan for improvement of investment climate through promoting the conclusion of investment-related agreements” (announced in May 2016), the Government will work on negotiations aiming to sign and/or achieve entry into force of investment-related agreements (investment agreements and economic partnership agreements with investment chapters) covering 100 countries/regions by 2020, while strengthening organization. Expecting to cover eighty-two countries/regions in total, including those that are currently under negotiation, the Government will aim to launch new negotiations with thirteen other countries by the end of this year through consultation with them.
- Regarding the tax treaties, the Government will expand networks for tax treaties in terms of quality and quantity that is necessary for supporting sound overseas business expansion of Japanese companies, through concluding new treaties with countries/regions where investment relations with Japan are expected to develop, as well as amending existing treaties.

③ Establishing common international understanding and rules concerning distribution and use of data

- In order to maximize the potential power for growth with technical innovations including IoT and big data, the Government will make efforts to establish international rules that include promotion of free distribution of information as well as prohibition of data-protectionistic policies such as requirement of data localization (request for installing servers), and access to or transfer of source code, except where there are justifiable public policy purposes such as ensuring cyber security.
- The Government will establish common understanding and promote cooperation through international forums such as G20, G7, OECD, APEC, and WTO as well as EPA/FTA.
- Through WTO and negotiations on economic partnership, the Government will take the lead in establishing rules on digital trade.

④ Supporting overseas business expansion of SMEs

- The Government will consider more detailed assistance by the “Consortium for New Export Nation”.
- Regarding JETRO’s support such as business matching for overseas business expansion of

service industries, the Government will a) cultivate new markets such as Russia, Central/Eastern Europe, and Central/South America, b) provide support in the fields of healthcare and nursing care in emerging countries in Asia, as well as c) add sports and IoT among focused areas for support.

- The Government will further consider and promote the following measures to support SMEs.
 - Safety measures (While further expanding the “SMEs Overseas Safety Measures Network”, The Government will strengthen disseminating and sharing information through distributing and upgrading manuals on safety measures and providing seminars about them, trainings, and implementing drills. The Government will also support measures against terrorism in developing countries through ODA.)
 - Troubleshooting in overseas (consultation services including in legal/labor/tax affairs for Japanese companies provided by overseas diplomatic missions, JETRO, and experts including legal professionals, as well as research and study)
 - Facilitate travelling of business person (fast issuance of APEC business travel cards in response to the increased applications due to expansion of its issuing targets to SMEs)

⑤ Utilization of highly-skilled foreign professionals

- In order for the further attraction of highly-skilled foreign professionals, the Government will actively publicize information that the living and working environment of foreigners has been improving, and the immigration system for highly-skilled foreign professionals is becoming very open, while cooperating with overseas diplomatic missions, JETRO, etc. [Repeat]

ii) Measures to utilize attraction of Japan

① Enhancing the initiatives to promote inward foreign direct investment

- Based on the “Final Report of the Working Group for Revising Regulations and Administrative Procedures” (approved by the Working Group for the Revising Regulations and Administrative Procedures, under the Council for Promotion of Foreign Direct Investment in Japan, on April 24, 2017), the Government will effectively solve issues that foreign companies face in relation to regulations and administrative procedures. In addition, the Government will introduce a “personal advisors system for foreign companies” into JETRO. Also, the Government will take measures such as disseminating English information in 10 focused fields, enhancing consultations for foreign companies and resolving individual issues by persons in charge and teams of specialists through cooperation with related ministries and agencies.
- Particularly, the Government will actively attract the high value-added division of foreign companies such as research and development to bring about innovations in Japan.
- Regarding the “Measures to Expand Inward Foreign Direct Investment (“Reform 2020” Projects)”, the Government will implement the following: a) organizing events for business exchanges toward the Regional Business Conference which will be held between 2019 and 2020, in order to connect exchanges between Japan and foreign local governments with business interactions between Japanese and foreign companies. In addition, b) considering an intensified implementation of matching events for large companies, investors, and venture companies with a target on the Global Venture Summit in 2020.

② Promotion of Cool Japan

- The Government will disseminate the attractions of Japan such as contents, food, designs, and tourism, domestically and internationally, utilizing such facilities as overseas diplomatic missions and Japan Houses. While seeking synergy effects, the Government will bring about the economic growth through market expansion for regional products and increase of foreign visitors. As essential initiatives of this process, the Government will promote measures that contribute to the creation of businesses and sustainable development of Cool Japan-related industries, by effective utilization of the Cool Japan Fund as well as the Cool Japan Public-Private Partnership Platform.
- Based on the “Initial Report of the Review Session on Cultivation of Human Resources for Cool Japan” (approved by the Review Session on Cultivation of Human Resources for Cool Japan on May 26, 2017), the Government aims to develop an environment whereby the Government will strategically promote cultivation and accumulation of human resources for Cool Japan. This includes support on cultivation of producers, establishment of practical systems of high-level education based on industrial needs, cultivation and utilization of human resources who can produce regional attractions and new brands and develop them overseas, and utilization and accumulation of foreign human resources.
- As an initiative that directly leads to the vitalization of regional economy, based on the “Final Report of Review Session for the Establishment of Hubs for Cool Japan” (approved by the Review Session for the Establishment of Hubs for Cool Japan on May 17, 2017), the Government will promote cooperation among the hubs inside and outside of Japan (including the Japan House) and industries as well as establishment of database for regional products.
- In order to promote overseas development of films, based on the “Report of Task Force Concerning Film Development Policies” (approved by the Task Force Concerning Film Development Policies on March 28, 2017), the Government will promote measures such as development of basis for international co-production, locational support for internal and external works, enhancement of functions of film centers, development of interests on Japanese films through film festivals.
- Regarding the overseas development of contents, the Government will promote further overseas development including achievement of new target for overseas sales of broadcast contents. This will be done through enhancement of support for local broadcasting stations, and through consideration of environmental development for procurement of funds, and the processing scheme of rights for contents production with overseas market in mind.
- Based on the “Policy on Handling of Amendments concerning the Liaison Meeting on Promotion of Export of Japanese Alcoholic Beverages” (approved by the Liaison Meeting on Promotion of Export of Japanese Alcoholic Beverages on March 28, 2017), the Government will further expand export of Japanese alcoholic beverages through the market development and expansion of market utilizing the Japan Food Product Overseas Promotion Center (JFOODO), improvement of quality and brand power through promotion of utilizing geographical indication system, and promotion of sake brewery tours.

③ Promotion of clean and attractive “Japanese IR” (Integrated Resort) development

- Following the enactment of the Integrated Resort Promotion Act at the end of last year, the

Government carries out legislative work with an aim to present the outline this summer, and try to enhance public understanding.

- By promoting integrated resort which contains family entertainment facilities, international conference halls, exhibition centers and so on, and by utilizing Japanese traditions, culture, and art, the Government will create internationally competitive extended-stay style tourism. The Government expects significant economic impact through large-scale investments. The Government also expects nation-wide economic benefits by encouraging IR visitors to extend their travel outside the IR. The Government will ensure that profit from casino is utilized for a wide range of public purposes. The Government will introduce the world's highest-standard regulations over casino, ensure adequate administrative capacity and competency necessary for strict implementation of those regulations, and take thorough and sufficient measures to address various concerns including addiction.

④ **Invitation of 2025 World Exposition**

- The Government will invite and host the 2025 World Exposition in Japan as a trigger for taking in overseas growing markets through making it an opportunity to disseminate the future systems of society and economy as well as life styles brought by Society 5.0 to the world, and to promote innovation.
- In preparation for the vote to determine the host country at general meeting of BIE (Bureau International des Expositions) to be held in November next year, the Government will take necessary measures with local governments and business communities across Japan to gain domestic and international support.

⑤ **Taking in growing markets through collaboration with communities of Japanese immigrants and descendants (“Nikkei”) overseas**

- In order to develop markets of Latin America and the Caribbean and other regions through collaboration with communities of Japanese immigrants and descendants (“Nikkei”) there, the Government will improve and promote publicity of Japanese culture/contents/events, Japanese language education, enhancement of educational functions of Overseas Education Facilities overseas, delivering of Japan-related information, training of Nikkei farmers as well as business interactions with Japanese companies, inbound tourism by Nikkeis, development of demand for studying in Japan, and exchanges in the fields of science and technology, utilizing institutions such as overseas diplomatic missions, Japan Houses, and the Japan Foundation. The Government will also expand and promote, in cooperation with the Japanese local governments, measures to enhance network with Nikkei communities and those who have personal ties with Japan.