

Follow-up on the Growth Strategy

July 17, 2020

1. Establishment of New Work Styles 1

- (1) Major progress of KPI
- (2) New specific measures to be taken
 - i) Improving the Environment for Second Jobs and Side Jobs
 - ① Worker Self-Assessment System
 - ② Simple Method for Managing Working Hours
 - ③ Expanding Workers' Compensation Insurance Benefits
 - ii) Improving the Freelance Environment
 - ① Formulating Effective Guidelines
 - ② Considerations of Legislative Handling
 - ③ Strengthening Enforcement
 - ④ Further Utilization of Workers' Compensation Insurance, etc.
 - iii) Fostering the Creativity of Working Adults (Continuing Education)
 - iv) Promoting Telework
 - v) Promoting the Hiring of Mid-Career and Experienced Individuals
 - vi) Developing Labor Market Infrastructure that Supports Independent Career Development
 - vii) Supporting Work Styles that can Maximize Productivity
 - ① Improving the Working Environment, Including Correction of Long Working Hours
 - ② Promoting the "Visualization" of Human Capital Information
 - ③ Increasing the Minimum Wage
 - viii) Ensuring Employment Opportunities Until Age 70
 - ix) Reviewing Pension Systems due to Diversification of Work Styles, Prolongation of Old Age, and Expansion of Employment
 - x) Further Expanding Female Participation and Promoting Management Diversity
 - xi) Human Resource Development for Society 5.0 in Primary and Secondary Education
 - xii) Fostering Human Resources at Universities for the Society 5.0 Era
 - xiii) Fostering and Utilizing Human Resources in Industry for the Society 5.0 Era

2. Review of Payment Infrastructure and Enhancement of Cashless

Payment 16

- (1) Major progress of KPI
- (2) New specific measures to be taken
 - i) Review of Payment Infrastructure
 - ① Review of Payment Legislation and Establishment of Financial Services Intermediary Legislation
 - ② Construction of Payment Infrastructure in Conjunction with Progress of the

4th Industrial Revolution

ii) Enhancement of Cashless Payment

- ① Review of Affiliate Store Fees
- ② Allocation of "Individual Number Points"
- ③ Overseas Expansion of the Japan-Developed Unified QR Codes and Unification of User Interfaces for Touch Payments
- ④ Handling Cashless Payments During Disasters such as Power Supply Disruptions
- ⑤ Promotion of Cashless Payments for Municipal Utility Bills
- ⑥ Improving the Cashless Environment via Individual Number Cards, etc.

iii) Review of Regulatory Restrictions on Existing Financial Institutions such as Banks

- ① Relaxation of Regulations on Other Businesses of Bank Groups
- ② Examine Methods for Restricting Bank Group Investments in Business Companies (5% and 15% Rules)
- ③ Maximum Utilization of Resources Held by Bank Groups
- ④ Ensure Equal Footing with Other Companies in the Same Industry for Global Competition

iv) Promoting Innovations such as Commercialization of FinTech, etc.

3. Responding to the Digital Market 22

(1) Major progress of KPI

(2) New specific measures to be taken

i) Development of Rules for the Digital Market

- ① Establishment of the Act on Improvement of Transparency and Fairness in Trading on Specified Digital Platforms
- ② Review of the Act on the Protection of Personal Information
- ③ Digital Advertising Market
- ④ Development of Rules for Other Digital Markets

ii) Refining Regulations Based on Social Implementations of Digital Technologies

- ① Mobility Field
- ② Fintech and Finance Field
- ③ Construction Field

iii) Early Nationwide Deployment of 5G, Promotion of Post-5G, and Promotion of So-Called 6G (Beyond 5G)

- ① Early Nationwide Deployment of 5G
- ② Promotion of Post-5G
- ③ Promotion of So-Called 6G (Beyond 5G)

iv) International Discussions and Development of Data Flow Rules at the WTO,

- etc. Toward Realization of DFFT
- v) Promoting DX (Digital Transformation)
- vi) Ensuring Cyber Security

4. Promotion of Open Innovation..... 33

- (1)Major progress of KPI
- (2)New specific measures to be taken
 - i)Investment in Start-up Companies
 - ①Open Innovation Promotion Tax System
 - ②Promotion of the Asia DX Project
 - ③Creating and Developing Startup Companies that are Active Globally
 - ii)Optimizing Contracts Between Large Companies and Startup Companies
 - iii)Promotion of Business Restructuring, Including Spin-Offs
 - iv)Further Expanding Female Participation and Promoting Management Diversity
 - ①Promoting Open Innovation through Industry, Academia, and Government
 - ②Higher Education and Research Reforms
 - ③Promoting Strategic Intellectual Property and Standards Utilization
 - v) Next-Generation Industrial Systems
 - ①Promoting Data Coordination and Utilization in Supply Chains
 - ②Social Implementation, of Robotics Technology
 - ③Expanding the Aircraft Industry
 - vi) Promoting Corporate Governance Reforms
 - vii)Improving the Quality of Information Disclosures and of Accounting / Auditing
 - viii) Creating an Environment and Supplying Risk Money in order to Proactively Invest in Growth
 - ix)Developing Financial and Capital Markets that Attract Investors and Lead to Increased Corporate Value
 - x) Establishing an International Financial City as an International Financial Hub for Asia and the World

5. Mobility..... 49

- (1)Major progress of KPI
- (2)New specific measures to be taken
 - i)Utilization of Technological Innovation in the Society 5.0 Era for Measures Against Traffic Accidents by Elderly Drivers
 - ①Promoting the spread of vehicles equipped with collision damage reduction brakes (automatic brakes) and equipment to inhibit sudden car starts from stepping on the wrong pedal

- ② Creation of a driver's license restricted to support cars
- ii) Establish a Paid Passenger Transportation System in personal-use automobiles in Cooperation with General Passenger Automobile Transportation Business Operators
- iii) Social Implementation of Low-Speed and Compact Automatic Delivery Robots
- iv) Promotion of a Japanese version of MaaS
 - ① Maintenance and revitalization of mobility in the regions
 - ② Combining mobility and logistics services
 - ③ Fresh urban development and mobility
 - ④ Acceleration of data linkage
- v) Acceleration of initiatives toward the social implementation of autonomous driving
 - ① Spreading and promoting autonomous driving
 - ② Development of base maps
 - ③ Formulation of international standards/Safety evaluation
 - ④ Human resource development
- vi) Promotion of various forms of ground, sea, and air mobility, and logistics reform
 - ① Establishment of a next-generation mobility system in the air
 - ② Promotion of various forms of ground mobility, and logistics reform
 - ③ Transformation of industrial structure corresponding to the digital age of the seas
- vii) Realization of safe and secure road traffic in light of recent traffic accidents

6. Initiatives in Individual Fields..... 60

- (1) Major progress of KPI
- (2) New specific measures to be taken
 - i) Energy and Environment
 - ① Establishing a robust and sustainable electricity supply system
 - ② Responding to energy issues and the state of future energy strategy
 - ③ Promoting green finance
 - ④ Business-led international roll-out and international cooperation
 - ⑤ Initiatives in the industry and transportation sectors
 - ⑥ Initiatives for community, living, the Fukushima Plan for a New Energy Society, Climate Change and Disaster Risk Reduction, etc.
 - ii) Oceans and Space
 - ① Oceans
 - ② Space
 - iii) "Smart" public services

- ① Promoting digital government
- ② Promoting the digitalization of local governments
- ③ Realization of “the world's easiest country for companies to do business in”
- ④ Radical review of regulations and practices that require face-to-face meetings, written documents, and the use of stamping seals
- ⑤ Promoting the “My Number” card and its active use
- iv) Next-generation infrastructure
 - ① Raising productivity in the area of infrastructure, and resolving issues in disaster prevention, transportation, logistics, and cities
 - ② Accelerating the introduction of PPP/PFI methods
- v) Reform across the whole agriculture, forestry and fishery industry, and realization of a Smart agriculture, forestry and fishery industry
 - ① Accelerating agricultural reform
 - ② Promoting exports
 - ③ Forestry reform
 - ④ Fishery reform
- vi) Preventing diseases and the need for long-term nursing care
 - ① Health promotion with a view to the 100-year life society, and promotion of disease/long-term nursing care prevention
- vii) Next-generation healthcare
 - ① Securing effective, efficient medical and nursing services that harness technological innovations
 - ② Development, commercialization, and international expansion of outstanding pharmaceuticals and medical equipment originating from Japan
- viii) Utilization of sandbox systems
 - ① Improvement of operation and follow-up after demonstrations
 - ② Reviews on continuation and expansion of system
- ix) Tourism, sports, culture and arts
 - ① Realization of Japan as a tourism-oriented country
 - ② Carving out a future for the sports industry
 - ③ Economic revitalization that leverages on cultural and arts resources
- x) Taking in overseas growing markets
 - ① Global expansion of Society 5.0 and achieving SDGs
 - ② Supporting overseas business expansion of Japanese companies
 - ③ Measures to make use of Japan’s charm
- xi) Promoting the success of foreign professionals
 - ① Promoting the acceptance of highly skilled foreign professionals
 - ② Strengthening the foundation for residence control and developing online procedures for status of residence

7. Maintaining Regional Infrastructure and Improving SME and Small Business Productivity..... 127

(1) Major progress of KPI

(2) New specific measures to be taken

i) Maintaining Regional Infrastructure

① Enacting exemptions to the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (shared buses, regional banks)

② Early realization of the Super City Concept

ii) Improving SME and Small Business Productivity

① Coexistence and mutual prosperity of large businesses and SMEs

② Optimizing individual transactions between large companies and subcontractors

③ Development of an environment to promote the growth of SMEs

④ Support for digital implementation to improve SME and small business productivity

⑤ Promoting smooth regeneration and business restructuring to improve productivity

⑥ Promoting overseas expansion and strengthening the resilience of supply-chains in and out of Japan

iii) Strengthening of regional measures in the face of population decline

① Regional revitalization that realizes a “new normal for everyday life”

② Supply of human resources to the regions

iv) Promotion of National Strategic Special Zones

① Early realization of the Super City concept <reposted>

② Promoting regulatory reform that supports the “new normal for everyday life”

③ Further addition of regulatory reform items

1. Establishment of New Work Styles

(1) Major Progress of KPIs

- [KPI] 2022: 9.0% ratio of hirees who had changed jobs**
⇒2018: 8.2%
- [KPI] 2025: 51.6% 65-69 years-old employment rate**
⇒2019: 48.4%
- [KPI] 2025: 70% of women continue employment after birth of first child**
⇒2015: 53.1%
- [KPI] With regards to computers for students, aim for one computing device for every student in all grades of compulsory education by 2020.**
⇒FY2018: 1 computing device for every 5.4 students
- [KPI] Have wireless LAN be standard in 100% of classrooms by FY2020.**
⇒FY2018: 45.6%
- [KPI] Have new IT passport tests for exam takers reach 500,000 people by FY2023.**
⇒FY2019: 103,812 examinees
- [KPI] Certify 150 courses as 4th Industrial Revolution skill acquisition courses by FY2022.**
⇒April 2020: 72 courses
- [KPI] Have the no. of adult students in universities and professional schools etc. reach 1 million people by FY2022.**
⇒FY2017: Approx. 510,000 people

(2) New Specific Measures to be Taken

i) Improving the Environment for Second Jobs and Side Jobs

As Japan enters an era where people have 100-year lifespans, it is necessary to create an environment where individuals can choose, from a young age, the way in which they want to work, and, as for work styles in the "With COVID-19" and "Post COVID-19" eras, there are high expectations for diverse work styles such as second jobs, side jobs, and freelance jobs.

Looking at the actual situation for this issue, although there has been an increasing trend in recent years of individuals who want to have a second job or side job, on the other hand, the number of individuals who actually have a second job or side job has tended to be flat, and there is an urgent need, from the perspective of working people, to improve the environment for second jobs or side jobs.

The reason behind this is that companies are taking a cautious attitude towards approving second jobs because, under the Japanese labor law system and with regards to second jobs and side jobs, companies are supposed to manage the total number of working hours from the employee's main job and from their second job or side job, but "It is difficult to manage and understand working hours

at second jobs or side jobs." Even in the Council on Investments for the Future's deliberations, it was pointed out that, irrespective of the decline in a company's labor from approving second jobs for employees, doing so would, on the contrary, increase the company's required number of management hours, and as such it is important to firmly establish rules on the scope of and ways for corporate labor management responsibilities so that companies can approve second jobs and side jobs with peace of mind.

Therefore, with regards to methods for managing the number of working hours, the Labour Policy Council will deliberate and develop rules in the following directions.

① Worker Self-Assessment System

- A new self-assessment system by workers will be established to understand the start of and hours worked at second jobs and side jobs, and procedures and forms for the system will be decided. Under this system, an employee's main place of work will not be held responsible for omitted or false reports, even if upper limits on working hours are exceeded through overwork at a second job.¹

② Simple Method for Managing Working Hours

- When an employee's main employer (Company A) approves a second job, the below conditions are applied so that Company A will not be affected by the employee's second employer (Company B) and it will be sufficient for Company A to continue managing working hours as usual.

For employees who wish to have a second job and, given the employee's prescribed working hours² at Company A, the employee's working hours at Company B shall be set so that they are within the range of total legal working hours or within the regulated upper limit for working hours.³

—In the above case, if it is necessary for the employee to work for longer than their prescribed working hours at Company A, then, by contacting the employee in advance, the employee shall be able to, as necessary (to be within the regulatory range), shorten⁴ their working hours at Company B.

- In addition, as a result of this, it shall be sufficient for Company A, as usual, to pay supplemented

¹ In France, Germany, and the United Kingdom, hours worked at second jobs and side jobs are summed up and included in the upper limit on working hours, and, as for the management method, it is common to have workers self-report the existence of second jobs and side jobs and their working hours at second jobs and side jobs; if the workers do not self-report or if workers make a false report then their main employer is not held responsible.

² "Prescribed working hours" are the basic hours that are decided between the employee and each company, not including overtime, and are usually set within the range of legal working hours.

³ If Company B does not conclude agreements pursuant to Article 36 of the Labor Standards Act, then it is possible for the employee to work a second job at Company B for the difference between the "legal working hours" and the "prescribed working hours at Company A." If Company B has concluded agreements pursuant to Article 36 of the Labor Standards Act, then it is possible for the employee to work a second job at Company B within the scope of the agreements in question for the difference between the "prescribed working hours at Company A" and the "upper limit on hours stipulated by Company B's agreements under Article 36 of the Labor Standards Act."

⁴ Company A shall not be held responsible for violations of the upper limits on working hours if the employee makes false reports regarding reductions in working hours at Company B.

wages only for the overtime⁵ that the employee works at Company A.

③ Expanding Workers' Compensation Insurance Benefits

- Revisions to the Industrial Accident Compensation Insurance Act were enacted⁶ to expand the benefits of workers' compensation insurance in cases of second jobs and side jobs, and there is work to smoothly implement this revision, calculating the basic daily benefit amount based on the wages at multiple employers and comprehensively evaluating and certifying work load.

ii) Improving the Freelance Environment

Regarding freelance work, the Cabinet Secretariat, in cooperation with relevant ministries and agencies, conducted a survey in 2020 from February to March in order to gain a centralized understand of the actual situation. Then, based on the results of the survey, the All-Generation Social Security Review Committee considered policy directions and obtained the following conclusions.

It is necessary to create an environment where individuals can choose freelance work from the perspectives of expanding diverse working styles, expanding employment of the elderly through expansion of the gig economy, extending healthy life expectancy, and increasing supporters and workers for social security.

Furthermore, in conjunction with the spread of COVID-19, people who work on a freelance basis have been greatly affected, and some people have said that when orders are cancelled, etc., that they cannot prove that the job was canceled because a contract document was not issued.

Based on these circumstances, the government will work together to establish the following protection rules in order to create an environment where people can work on a freelance basis with peace of mind.

① Formulating Effective Guidelines

a) Basic Approach

- The Act on Prohibition of Private Monopolization and Maintenance of Fair Trade generally applies to transactions between businesses and freelance employees because it is applied as long as the party ordering the transaction is a business, even if the counterparty is an individual. Additionally, the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors generally applies to transactions with certain businesses and freelance employees when the party ordering the transaction is a business with capital of more than 10 million yen because the Act is applied even if the counterparty is an individual. As such, it is possible to widely apply the Act on Prohibition of Private

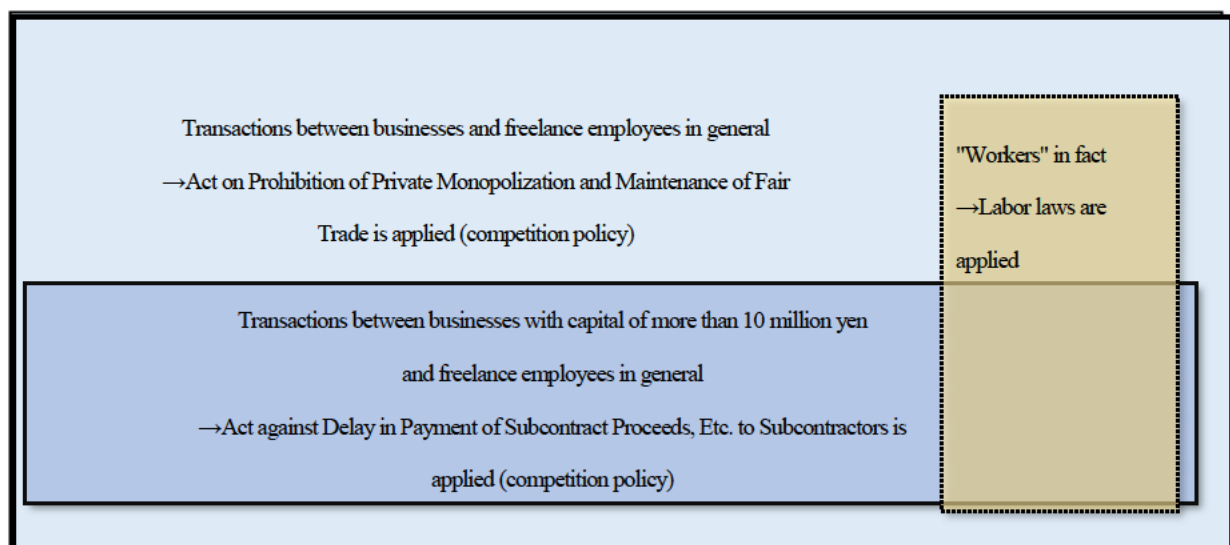
⁵ Depending on the company, the prescribed working hours may be set shorter than legal working hours; in some cases overtime wages will not be paid if the employee's working hours are within the legal working hours, even for overtime, and in those cases, overtime will be the portion of the employee's hours that exceeds the legal working hours.

⁶ Effective September 1, 2020.

Monopolization and Maintenance of Fair Trade and the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors to transactions between businesses and freelance employees in general. On the other hand, until now the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade in particular has been applied with caution in respect to work styles. On this point, and in light of the fact that the Japan Fair Trade Commission has changed the stance it has held until now, in regards to transactions with freelance employees it is necessary to summarize the approach with regards to the application of the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade and the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors and to clarify them via guidelines, etc.

- On the other hand, in addition to the application of these laws, even if an individual is working as a freelance employee, labor-related laws and regulations will be applied in cases of "employment" under the current law, such as in cases where it is determined that a freelance employee is substantially engaged in work under the direction of the business placing the order. In addition to clarifying the applicability of these laws and regulations and in order to clarify problematic behavior based on the Act on the Prohibition of Private Monopolization and Maintenance of Fair Trade, on the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, and on labor-related laws and regulations, and the Cabinet Secretariat, the Japan Fair Trade Commission, The Small and Medium Enterprise Agency, and the Ministry of Health, Labour and Welfare will jointly aim by the end of 2020 to create a draft proposal and to start public comment procedures regarding effective and comprehensive guidelines.

(Figure: Legal and regulatory relationships applicable to freelance workers)



b) Guideline Directions

- The following points will be considered as specific content for the joint guidelines.

(Issuance of Contract Documents)

- Clarify that it is inappropriate under the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (abuse of superior position) for a business that deals with freelance employees to not issue contract documents or to issue insufficiently detailed contract documents.
- Regarding the issuance of documents for the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, current online issuance of documents is permitted on the assumption that the recipient has consented in advance and that the recipient saves the document, and is provided an example template for online contract documents.

(Unilateral Changes, Payment Delays, and Payment Reduction Transaction Conditions by the Ordering Business)

- Clarify that for businesses conducting transactions with freelance employees that it is an abuse of superior position under the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade and that it is prohibited conduct under the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors for the business, with regards to freelance employees, to improperly make unilateral changes to the transaction conditions or to delay or reduce payment of compensation.

(Application of the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade to Transactions with Intermediary Companies)

- Clarify that the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade also applies to transactions between intermediary companies and freelance employees because there are cases of freelance intermediary companies making unilateral changes to transaction conditions.

(If Falls Under "Employment" in Current Laws)

- Even if an individual is working as a freelance employee, clarify that labor-related laws and regulations apply, in addition to the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade, regardless of the type of contract when (a) the individual is substantially working under the direction and supervision of the business ordering the transaction, or (b) there is equivalent compensation provided for labor performed, or (c) there is no entrepreneurialism when looked at from the perspective of the relationship between the amount of compensation and the burden of machinery and equipment, or (d) "employment" is applicable under current law when comprehensively considering if there is exclusivity, etc.

② Considerations of Legislative Handling

- Although issuance of documents specifying transaction conditions is obligatory under the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, there will be consideration of legislative measures, including revisions to the Act against Delay in Payment of Subcontract

Proceeds, Etc. to Subcontractors for issues necessary to protect freelance employees, such as orders from businesses that have capital of less than 10 million yen.

③ Strengthening Enforcement

- In order to be able to quickly respond troubles with transactions between freelance employees and the business ordering the transaction, enforcement based on the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade and on the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors will be strengthened by considering increases to the number of transaction investigators (Subcontractor G-Men) at The Small and Medium Enterprise and to the number of staffs at the Japan Fair Trade Commission.
- In addition, ministries and agencies with jurisdiction over industries will revise subcontracting guidelines for each industry after also reflecting guideline content into promotion standards based on the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises and will strengthen enforcement based on these guidelines.

④ Further Utilization of Workers' Compensation Insurance, etc.

- In order to protect individuals who work as freelance employees, there will be consideration of expanding eligibility of the special enrollment system⁷ to further utilize workers' compensation insurance. In addition, mutual aid systems (small business mutual aid, etc.) that allow the enrollment of individuals working as freelance employees will be further promoted. In conjunction with this, development of remote work environments for individuals working as freelance employees will be supported.

iii) Fostering the Creativity of Working Adults (Continuing Education)

- It is necessary to provide continuing education opportunities for working adults in their 20s and early 30s at large companies in order to refine and step-up their creativity. It has also been pointed out that one of the reasons for the low markup rate in Japan is that Japanese manufacturing companies position art and design relatively far from management's focus, instead paying attention to cost and quality.
- For this reason, there will be intensive and medium- to long-term support in order to develop educational programs that connect businesses to creative ideas based on customer needs and individual attitudes and to quickly construct a base of universities that put these programs into practice. Specifically, it will establish an environment where the latest IT and technology necessary

⁷ A system for individuals other than workers that allows special participation in workers' compensation insurance for appropriate individuals so that they are protected by workers' compensation insurance similarly to workers when looking at their actual duties and at the status of accidents occurring, etc.

for the realization of ideas can be utilized and will be a small group program centered on project-type lessons in collaboration with companies, developing educational programs in collaboration with both domestic and overseas art universities that reflect education methods. Therefore, an environment in which it is easy to attend these classes will be created, such as by holding classes on weekday evenings or on holidays and by setting inexpensive tuition fees so that working adults from a diverse array of backgrounds can learn while working.

- In the future, there will be consideration of providing opportunities (presenting results and products at exhibitions, etc.) to put this cultivated creativity into practice at business sites and locations, such as by supporting activity fees and expenses for current students and graduates.

iv) Promoting Telework

- From the viewpoint of preventing the spread of COVID-19, telework introduction and support will be strongly advanced through subsidies related to setting up and operating telework consultation centers and to introducing telework in addition to raising awareness of guidelines for appropriate labor management when it comes to telework.
- To expand the nationwide teleworking footprint, telework utilization from a variety of perspectives, such as companies' business continuity measures and increasing productivity, including contributing to preventing the spread of COVID-19 and promoting rural residences, will be strongly advanced through maintaining telework environment such as maintenance of an area's optical fiber networks, cultivating human resources responsible for the spread of telework, dispatching and consulting telework experts, and building a support system for introducing telework in regions in collaboration with professional groups and commercial / industrial groups that support SMEs.

v) Promoting the Hiring of Mid-Career and Experienced Individuals

- In order to expand mid-career hiring and the hiring of experienced individuals, it is necessary for companies to review their hiring systems and their evaluation / compensation systems. With regards to obligatory, periodic, and public disclosure of the ratio of the number of regular employee mid-career hires to the number of regular employee hires for companies with 301 or more employees, which is based on the Labor Policy Comprehensive Promotion Act that was revised by legislation partially revising the Employment Insurance Act, the government will work to ensure smooth enforcement such as by making the contents of the revision well known before it is enforced in April 2021.
- On the premise that learning environments for students have been secured and with regards to appropriate methods of job-seeking and recruiting activities for students and corporations in the coming era, the direction of responses will be steadily considered, including a review of the "Basic Way of Thinking in Promoting Internships," based on industry-academia council recommendations

and progress on the future of recruitment and university education and survey results on the effects of long-term internships, etc.

vi) Developing Labor Market Infrastructure that Supports Independent Career Development

- Regarding the "Japanese Version O-NET" vocational information site and the "Vocational Ability Diagnostic Tool" and from the viewpoint of supporting the job-seeking activities of people looking for work and the recruitment activities of corporations, the aim is to build an organic system that can smoothly grasp vocational information and recruitment information by, in addition to collaborations between them, linking with existing systems such as HelloWork Internet Service.
- Regarding a financial relief system for invalid dismissals, as soon as possible there will be a specialist examination of legal and technical points, and, based on the results, the Labour Policy Council's final conclusions will be obtained and the necessary institutional measures will be taken.
- At SMEs, support the introduction of HR technologies and disseminate usage examples, and support productivity improvements and the participation of diverse human resources.
- For individuals at working at large companies but who can be candidates for managing startup companies, eliminate obstacles when they are changing jobs to a promising start-up company whose growth is hampered by lack of management personnel, and improve the environment for human resource pools and matching systems, etc. so that effective job transfer intermediation can be carried out.
- Consider establishment of an employment environment in which the essential workers who support society, such as medical / nursing, cleaning, public transportation, and transportation / logistics / electricity / gas / water, etc. personnel, can work with peace of mind.

vii) Supporting Work Styles that can Maximize Productivity

① Improving the Working Environment, Including Correction of Long Working Hours

- Continue striving to properly enforce overtime regulations, which have applied to large corporations since April 2019 and to SMEs from April 2020. In conjunction with this, to apply the regulations to the construction industry and doctors starting in April 2024, there will be work towards smooth application of the law, such as by encouraging and supporting efforts to reduce overtime work and to ensure workers' health, including the necessary legal arrangements, even during the application grace period for enhancement of consultation systems and thorough dissemination of knowledge about the systems.
- In consideration of the revised Construction Business Act which will come into effect in October 2020, promote securing leaders in the construction industry through productivity improvements by ensuring proper construction periods, work style reforms that equalize construction time, digitizing procedural applications for permissions, etc., and by a construction career improvement system to improve the treatment of technicians.

- Strive to smoothly implement "Equal Pay for Equal Work" (Part-time and Fixed-Term Labor Act, Worker Dispatch Act) that has been in effect since April 2020. To apply it (Part-time and Fixed-Term Labor Act) to SMEs by April 2021, continue to provide consultation support to SMEs and small businesses at the Work Style Reform Promotion Support Center, and strive to disseminate information about the "Initiative Procedures Manual" for business owners and the "Inspection and Examination Manual for Eliminating Unreasonable Treatment Differences" for each industry.
- Based on revisions to the Labor Policy Comprehensive Promotion Act and the Act on Equal Opportunity in Employment for Men and Women, etc. that have required the establishment of employment management obligations for business owners to prevent power harassment and that have strengthened measures to prevent sexual harassment, disseminate information, raise awareness, and support corporate efforts by experts so that SMEs can take appropriate measures.

② Promoting the "Visualization" of Human Capital Information

- Promote companies to build human resource strategies that respond to changes in the business environment, and, from the perspective of improving medium- to long-term corporate value, related ministries and agencies will work together to clarify the role that should be played by management, boards of directors, and institutional investors, etc., while at the same time further promoting, in both the public and private sectors, the "information visualization" regarding corporate human capital.

③ Increasing the Minimum Wage

- Wage increases are the key to realizing a virtuous cycle of growth and distribution, and there have been proactive efforts towards them. Amongst these efforts, the minimum wage increased by 86 yen / hour in a nationally weighted average over the 10 years from FY2003 to FY2012, but the minimum wage has increased by 152 yen / hour over the 7 years from FY2013 to FY2019. Additionally, there was an increase of 27 yen / hour in the previous fiscal year, which is the largest ever increase under the current method. Furthermore, last year, the Cabinet Secretariat decided on a policy of "Aiming for a nationally weighted average of 1,000 yen / hour at an earlier stage, together with efforts to watch economic and price trends and consider the disparity between regions, and based on the combination of the fact that the target annual rate of wage growth has been raised to approx. 3%."
- It is important to raise wages in order to drive a virtuous cycle in the economy, and this policy will be maintained while optimizing SME business relationships. On the other hand, the effects of COVID-19 on employment and on the economy are severe, and protecting employment in the public and private sectors is now a top priority issue. For this reason, the Minimum Wage Council will consider the difficult situation in which SMEs and small businesses are in and examine the minimum wage for the current fiscal year.

viii) Ensuring Employment Opportunities Until Age 70

- In 2020 there were partial revisions to the Act on Stabilization of Employment of Elderly Persons, and it will be smoothly implemented (April, 2021), in consideration of the fact that companies are obliged to take measures (introduction of any the following: discontinuance of compulsory retirement age, extending compulsory retirement age until 70 years old, continuous employment system until 70 years old, or measures other than employment given an agreement between labor and management (a system that continuously concludes business outsourcing contracts until 70 years old, a system that enables continuous engagement in social contribution activities until 70 years old)) in order to ensure employment opportunities for individuals until age 70.

ix) Reviewing Pension Systems due to Diversification of Work Styles, Prolongation of Old Age, and Expansion of Employment

- The "Act to Partially Revise the National Pension Act in order to Strengthen the Functions of the Pension System" was enacted in 2020, and it will smoothly and successively implement⁸ expanding applicability for employee insurance to short-time workers, raising the upper limit from 70 to 75 years old for the age when individuals can select to start receiving their pensions, expanding the scope of continuous employment old-age pension systems that do not stop payments, and increasing the eligible ages for enrollment in private pensions (defined contribution pensions).

x) Further Expanding Female Participation and Promoting Management Diversity

- Through revisions to the Act on the Promotion of Female Participation and Career Advancement in the Workplace and based on the fact that there has been an expansion in the scope of eligibility for the obligation that general business owners formulate action plans for women's participation and that information disclosure on women's participation has been strengthened, for smooth implementation there will be efforts to thoroughly disseminate information on the content of the revisions and support for consultations and individual visits for companies while promoting cooperation between prefectural labor bureaus and regional public organizations so that SMEs can steadily make initiatives for women's participation.
- Promote gender investment, which considers in investment decisions factors for women's participation in companies. Additionally, in order to secure human resources who will become female officers and executives, promote initiatives in regionally and in the private sector, and enhance and further utilize the Female Leaders Human Resources Bank.
- In the era of 100-year human life spans and in order to build a society where people can make a

⁸ The expansion of applicability for employment insurance to short-time workers (step-by-step reduction in corporate size requirements for businesses) will come into effect on October 1, 2022 and October 1, 2024. The upper limit for the period when pension payments can be started will be raised, and the expansion of scope for continuous employment old-age pension systems that do not stop payments will come into effect on April 1, 2022. The increase in enrollment ages for defined contribution pensions will come into effect on May 1, 2022.

variety of choices, there will be promotion of re-entry into the labor market for a diverse array of women, including women who are in their child-raising phase and immediately after their child-raising phase, through advanced initiatives such as support for the establishment and utilization of a "Public-Private Partnership Platform" to support new employment, promotion of the development of models that comprehensively support career advancement, and NPOs that work closely with the needs of women.

- Regarding the development of childcare capacity, in addition to endeavoring by the end of FY2020 to eliminate children wait-listed for childcare, develop childcare capacity for 320,000 children to be able to meet an 80% female employment rate, and continue to provide support. As for securing childcare capacity after FY2021, to provide appropriate childcare to those who need it, provide detailed support according to the characteristics of each local municipal body in addition to considerations based on the results of "Population Forecasts" for the 2nd Municipal Child and Childcare Support Project Plan.
- Based on the "New Comprehensive Plan for After School Children," there will be steady promotion of the development of further capacity in clubs for after school children. Furthermore, in order to support child-raising that meets the diverse needs of various child-raising families, such as whether or not they are working, there will be further advancement of the establishment of regional child-raising support bases and promotion of multi-functionalization.
- To encourage women to continue their careers after childbirth, encourage male participation in childcare and household chores, and correct the current situation wherein the burden of childcare and household chores is biased towards women. Specifically, there will be comprehensive promotion of efforts such as publicity for and disseminating information about the individual childcare leave system for workers and consideration of a framework that promotes leave in the period immediately after a spouse gives birth.

xi) Human Resource Development for Society 5.0 in Primary and Secondary Education

- In addition to realizing world-class, high-quality education that utilizes the latest technology for all students and to enable students to continue learning without anxiety, even in an emergency such as temporary school closures due to a disaster or infectious disease, there will be careful consideration amongst relevant parties regarding the development of a learning environment for a new era that combines hardware, software, and human resources, such as the planned development of a detailed guidance system with a small number of people and the utilization of ICT.
- For primary and secondary education, in addition to promoting the development of high-speed and large-capacity network environments in schools (school LANs), aim by FY2020 provide one computing device per student at all levels of compulsory education and work to develop an environment wherein the computing devices can be fully utilized, including taking the devices back to a student's home. In conjunction with this, provide necessary support systems such as improving

the quality of teachers and developing human systems for utilizing ICT.

- In addition to these environmental improvements, there will be full-scale introduction of a subject-based teacher system in the upper grades of elementary school and promotion of an integrated review of staff allocations, teachers' licenses, and curriculums which cover the 9 years of compulsory education, starting with flexible handling of the standard lesson hours for each subject, reaching conclusions during the current fiscal year and realizing individually optimized learning that leaves no diverse child behind. Additionally, for high schools as well, there will be promotion of high school educational reforms that are compatible with Society 5.0 by fostering human resources through the curriculum development of advanced and diverse subject contents, irrespective of their humanities / science typing.
- Advance preparations so that all local governments and schools that desire to do so can use "SINET," including the utilization of educational resources such as universities in primary and secondary education and utilization in education and academic research at universities and colleges, and conduct trial implementations by the end of FY2020. Additionally, based on the "Future Learning" build-out package formulated in February 2020, build utilization models of the latest communication technology (5G) in order to realize effective individually optimized learning and instruction without restrictions on time or distance. In addition, examine, along with experts, methods to manage and utilize the data in consideration of continuous utilization of learning data, and lay out a direction during FY2020.
- In light of the importance of overseas educational facilities, consider strengthening their functions while promoting utilization of ICT and strengthening guidance systems for measures against infectious diseases, etc.
- In conjunction with promoting development towards the realization of an environment with one computing device for each child and student, review and verify the effects and impacts of future methods, from the perspective of enriching learning, while promoting utilization of digital textbooks. Specifically, commence the review for the current year, including a review of the current rules about fewer than half of the number of lessons for each subject, and reach a conclusion during FY2021.
- With regards to the Compensation System for Public Transmission of Copyrighted Works for Classroom Purposes, consider necessary support in order to reduce the burden of compensatory money for full scale implementation from the next fiscal year in addition to smoothly promoting emergency and special operation of the system, which is non-compensatory for this fiscal year.
- To foster the "ability to use information," conduct surveys, etc. in order to survey and research what contributes to improving teachers' instructional ability and to quantitatively measure their ability to use information. Additionally, based on considerations of methods, etc. for teacher education, training, and licensing, by FY2024 aim for high schools to hire one or more individuals, including diverse human resources in society, per school who are well acquainted with ICT. Furthermore,

consider the establishment of a flagship university that will take the lead in education teachers that have high instructional abilities for Society 5.0.

- In order to improve the productivity and quality of learning, create and collect good examples so that educational data, such as EdTech development and learning logs that realize effective learning with AI, are effectively utilized for children's and students' learning and for teachers' instructions, and aim to deploy them nationwide.
- Regarding STEAM⁹ education, which is cross-disciplinary education utilizing learning in the subjects of Science, Technology, Engineering, Art, and Mathematics to solve problems in the real world, by FY2020 create and collect good examples through industry-academia collaborations and regional collaborations, then build an online library of STEAM educational contents by FY2020 while presenting model plans and deploying them to schools nationwide. Additionally, in conjunction with this, promote experiential activities that contribute to improving non-cognitive abilities, which are important because of digital society.

xii) Fostering Human Resources at Universities for the Society 5.0 Era

- In order to continue learning at universities, etc. even during the spread of COVID-19, accelerate the construction of distance learning environments at universities, etc. in addition to providing necessary financial support to students in preparation for the second and third COVID-19 waves and for the future development of digitalization throughout society. Additionally, rebuild global strategies for future higher education while focusing on international trends and in addition to supporting exchanges of international students from the high school stage, which has been greatly impacted, and supporting the resumption and continuation of internationalization efforts by universities, etc.
- In order to have students acquire the basic ability to apply mathematics, data science, and AI to their own specialized fields, regardless of their training in humanities or science, develop model curriculums for applied basic levels during FY2020 in addition to providing universities and technical colleges throughout Japan with teaching materials based on model curriculums for literacy levels in math, data science, and AI. Additionally, develop a system for development at an early stage of specialized teachers in data science education and statistics. In addition, taking into account the status of efforts such as introducing mathematics, data science, and AI education into curriculums, proactively support universities and technical colleges through focusing on operating expenses and private school grants, etc.
- For PhD human resources, the next generation of human resources will be fostered by dispatching PhD human resources to classes in cooperation with high schools in addition to developing and implementing, in cooperation with the industrial world and overseas universities, training programs

⁹ Cross-disciplinary education to utilize learning in the subjects of Science, Technology, Engineering, Art, and Mathematics to solve problems in the real world.

for acquiring skills such as advanced data science, and then deploying those training programs.

- Establish a system for universities and technical colleges to certify excellent educational programs in mathematics, data science, and AI that based on the industrial world's needs. Regarding literacy level, in addition to beginning operations during FY2020, promote the development of collaborative industry-academia programs centered on the fields of mathematics, data science, and AI at universities and technical colleges.
- Promote the active utilization of academic degree program systems that can set curriculums beyond the boundaries of undergraduate and graduate schools. In conjunction with this, in order to realize a wide range of liberal arts education across the humanities and sciences in university education, utilize the academic degree program systems and undertake concrete efforts towards the construction multiple new types of educational programs ("late specialization programs," etc.) that balance breadth and depth from general, university-wide education to graduation education. Additionally, in order to cultivate top human resources who will lead the world, undertake concrete efforts towards building educational programs that will draw out "advanced and exceptional students" through realization of optimal individual learning from an early stage via advance entry for advanced and exceptional young students into high schools and universities, etc.
- Promote a shift to university education that can foster autonomous learners that survive difficult-to-predict eras through promoting the visualization of learning results by collecting and publishing good examples and by spreading and disseminating information about the "Academic Management Guidelines" that were compiled in January 2020.
- Steadily implement a common university entrance exam that evaluates academic abilities necessary for the Society 5.0 era, such as thinking ability, judgement ability, and expression ability. Additionally, consider including questions about "Information I" in the exam from FY2024, including questions on the utilization of CBT.

xiii) Fostering and Utilizing Human Resources in Industry for the Society 5.0 Era

- AI Quest (problem-solving style human resources development AI) provides a practical learning space centered on problem-solving style learning carried out by companies in order to discover and resolve management problems at SMEs by applying data science and AI, and will be implemented full-scale domestically.
- In the "Unexplored IT Human Resources Discovery and Development Project," a new mechanism to discover human resources with advanced mathematical talents and to foster human resources to innovate in information processing technology, such as AI technology, will be started from FY2020.
- Regarding cyber security human resources, in order to promote matching between companies and human resources, there will be regional development of fostering core human resources who are well acquainted with information and control systems for important infrastructure and industrial infrastructure, in addition to clarifying the required duties / roles and necessary skills / qualifications,

etc. In addition, there will be work on fostering security human resources in regional areas, building a cyber exercise implementation platform that can be utilized by educational institutions, etc., and implementing "practical cyber defense exercises" for information systems personnel in governmental agencies, etc.

- To create a global-scale industry in the ICT field, there will be a review of the (Inno)vation Program, and promotion for bringing disruptive challenges into the world, together with network support to discover and support human resources who will take up the challenge of disruptive innovation.
- Regarding "regional ICT clubs," places where children, working adults, people with disabilities, and elderly people learn ICT skills like programming from each other, promote dissemination of them to various regions by collecting and sharing good examples.
- With regards to the use of ICT in order to make training content more sophisticated and to efficiently implement training, consider steps towards introduction and quickly obtain a conclusion in addition to providing vocational training in manufacturing fields that correspond to the 4th Industrial Revolution.

Have core technical personnel in a wide range of industrial fields take up the challenge of world-class technical competitions based on the evolution of technologies such as IT, AI, and digitalization. In addition, foster momentum towards holding the WorldSkills competition in Japan, promoting initiatives such as strengthening the competitiveness of Japan's competitors so as to contribute to the development of skilled human resources and improving their position by exposing many people, including children, to these competitions.

- Develop environments so that all people can continuously learn the ICT skills required in Society 5.0.

2. Review of Payment Infrastructure and Enhancement of Cashless Payment

(1) Major Progress of KPIs

[KPI] By 2025, expand GDP of financial sector to 25 trillion yen.

⇒ 2018: 22.8 trillion yen

[KPI] By June 2025, double the percentage of cashless transactions to about 40%.

⇒ 2019: 26.8%

* The numerator is the sum of payments made by credit cards, debit cards, electronic money, and QR codes in 2019. The denominator is the private final consumption expenditure in 2019 (in nominal terms, the second preliminary estimates).

(2) New Specific Measures to be Taken

i) Review of Payment Infrastructure

① Review of Regulations on Payment Services Providers and Establishment of Regulations on Financial Services Brokers

a) Review of Regulations on Payment Services Providers to Enable Remittances over 1 Million Yen by Non-Banks

- The Amendment of the Payment Services Act¹⁰ which develops a new category of money transfer service providers so that non-banks can handle remittances over 1 million yen per remittance, with imposing deposit liability of funds for users was enacted. This will promote the emergence of a variety of more convenient remittance services.
- In addition, this Amendment exempts deposit liability from money transfer service providers who handle only small amount of money not exceeding 50,000 yen. This promotes the provision of low-cost and convenient money transfer service and improve the user convenience of small amount of money remittances not exceeding tens of thousands of yen used by many people.

b) Regulations on Financial Services Brokers

- Previously, financial brokerage businesses that handles various financial services on EC sites were required to acquire different licenses or registrations of each financial sectors, such as banking, securities firms or insurance companies so that it was difficult to provide a wide variety of financial services spanning multiple sectors. It had been pointed out that, to enhance utilities of consumers, a new regulatory framework suited for such financial brokers that provide a wide variety of financial services on a one-stop basis should be created.
- Based on these opinions, Regulations on Financial Service Brokers (Act on Provision of Financial Services¹¹) which allows brokerage businesses to handle financial services spanning all financial

¹⁰ This Amendment shall come into effect on a date designated by Cabinet Order within one year after the date of promulgation (promulgated in June 12, 2020).

¹¹ This Act shall come into effect on a date designated by Cabinet Order within one year and a half after the date of

sectors (banking, securities firms, or insurance companies) with a single registration was enacted. Users can select the best financial product matching their needs from a variety of financial products, for example, by comparing interest or fees of them on their smartphones.

② **Construction of Payment Infrastructure associated with the Progress of the 4th Industrial Revolution**

Japan's payment systems have a long history and have robust structure, but they have difficulty in adaption to new forms of payment systems. In addition, it has been pointed out that, with a move to the further progress of cashless payments accelerated by the spread of COVID-19, there are so various new comers in cashless payments businesses that there should be more improvement in payment infrastructure. Based on this recognition, the government will take the following measures.

a) **Review of Bank Transfer Fees**

- In the midst of expansion of cashless payments in our daily life with the progress of the 4th Industrial Revolution, people make payments more frequently and in smaller amounts. On the other hand, bank transfer fees becomes an obstacle to the spread of cashless payments because stores introducing cashless payments receive their sales from payment service providers through bank transfer.
- For this reason, inter-bank fees, which account for a considerable portion of the costs behind bank transfer fees and having not changed for more than 40 years, should be reviewed. For the review, from the perspective of securing stable and efficient operation of nationwide payment network infrastructure, inter-bank fees should be integrated to the system mandated by the Japanese Banks' Payment Clearing Network (Zengin-Net)¹² and should be lowered to a reasonable level that properly reflect costs, while visualizing cost structures.
- To improve the efficiency of the Zengin System, consider measures to improve governance and transparency (visualizing cost structures, etc.) of Zengin-Net.
- Moreover, to lower bank transfers fees, encourage regional financial institutions to improve cost structures of their IT systems through its standardization .

b) **Improve Convenience of Frequent, Small Amount Payments**

- To improve convenience for users make remittances more frequently and in smaller amounts, promote the diversification of the fee system that is now mechanically charging fees per remittance regardless of the total amount of remittance, such as introducing a new fee system charging fixed fee regardless of frequency of remittances.
- In addition, construction of new settlement system focusing on frequent, small amount payments will be discussed.

promulgation (promulgated in June 12, 2020).

¹² Association that operating the Zengin system.

- Furthermore, with regards to small amount payment services flooded with many participants in the market, promote interoperability among payment services, such as securing interoperability between smartphone payment services by banks.

c) **Participation of Blue-Chip Non-Banks**

- Currently, non-bank payment service providers (non-banks) are not qualified to participate in the Zengin system, so that they cannot help but to connect to banks when they withdraw funds from users and deposit to affiliate stores.
- Therefore, qualifying mark of the Zengin system will be reconsidered to allow the participation of blue-chip non-banks so that they can reduce remittance costs on their own efforts.

ii) **Enhancement of Cashless Payment**

① **Review of Merchant Fees**

- A Guideline requiring disclosure of merchant fees and cycle of deposit to small and medium-sized affiliate stores has been established, considering that high merchant fees affiliate stores (businesses) have to pay to payment service providers become obstacles of introducing cashless payments. By continually utilizing this guideline, the government will encourage further reductions of merchant fees even after the completion of point refund program.
- Regarding communication fees between merchant stores and credit card companies, request a review of the fee system which now charge same fee on each payment transaction regardless of its amount, so that it can be suitable for frequent, small amount payments.

② **Grant "Mainapoint"**

- From September of 2020, to promote consumption, the program granting "Mainapoint"¹³ to Individual Number Cards holders will start.

③ **Overseas Expansion of the Japanese Original Standardized QR Code and Unification of User Interfaces for Touch-Type Payments**

- Standardization and interoperability of QR Codes should be promoted not only for enhancing user convenience, but also for securing the global competitiveness of Japanese payment systems.
- From this perspective, though Japan is now flooded with many and different of payment services, the government will promote overseas expansion of the Japanese original standardized QR code (JPQR) by securing mutual linking of QR code standards among Asian nations.
- To promote JPQR in Japan, hold hundreds of nationwide briefing sessions for affiliate stores across the country.
- Additionally, even though Japan's touch-type payments have their own original standards, from

¹³ 5,000 points will be granted to users of cashless payment service if they deposit 20,000 yen to the service provider.

the perspective of accommodating inbound demands, we will promote introduction of touch type payment terminals that can handle multiple standards which differing country-by-country, so as to meet the touch-type payment standards of both Western countries and Japan,

④ Sustain Cashless Payments in Disasters (Power Supply Disruptions etc.)

- In times of disasters, power supply and communications networks can be suspended, so cashless payment system that consumers and stores can continually handle cashless payment in times of disasters should be developed.
- Specifically, we will develop uniformed policy for credit card industry, so that affiliated stores can process payments by manually recording numbers on credit cards etc., under condition of verifying measures for ensuring security of consumer information handled by affiliated stores.

⑤ Promotion of Cashless Payments of Public Utility Charges to Local Governments

- It has been pointed out that local governments have difficulty in introducing cashless payment of public utility charges, so that the government will back up introduction of cashless payments by local governments through promoting the "Cashless Payments Introduction Manual" for local governments formulated in April 2020.

⑥ Enhancement of Cashless Payment by Individual Number Cards, etc.

- To sophisticate means of paying benefits from the government and simplify identification and other related procedures at financial institutions, consider linking Individual Number Cards, etc. with bank accounts and benefits for individuals by utilizing the foundation of Individual Number Points.
- Consider the possibility of CBDC in coordination with foreign countries, such as conducting demonstrative test from technical aspects by the Bank of Japan.

iii) Review of Regulatory Restrictions on Traditional Financial Institutions such as Banks

With the progress of digitalization, review regulations on traditional financial institutions so that they can cope with the situation that most of the new entrants develop businesses combining financial and non-financial services.

① Ease the Regulations on Other Businesses of Bank Groups

- Review regulations drastically during FY2020 so that bank groups can actively engage in socially-significant businesses. In the review, with regards to the advanced banking service company system, consider shifting from the authorization system to the notification system on the condition that they adopt the fellow subsidiary form that excels in shutting out the risks from the advanced banking service company and to review requirements to enable active engagement in businesses such as digitalization, regional revitalization, and SDGs (Sustainable Development Goals), etc.

② Examine the Investment Restriction in Business Companies by Bank Groups (5% and 15% Rules)

- Regarding investments in business companies by bank groups, while the risk of unlimited liabilities, the abuse of dominant bargaining positions, and the problem of industrial control by bank groups should be taken into account, there are great merits, such as increasing bank group's profits from dividends and supporting loan customers, so examine what it should be in the future, based on changes in the society, such as the prolonged low-interest rate and the increasing need for business revitalization, business succession, and venture companies support, and reach to the conclusion during FY2020.
- In addition, from the point of ensuring equal footing between bank groups and non-financial company groups, consider what banks owned by non-financial companies should be in the future while taking into account the impact on existing non-financial company groups holding banks.

③ Maximum Utilization of Resources Held by Bank Groups

- In order to maximize the utilization of resources held by bank groups, such as human resources, data, and systems, review related regulations regarding incidental business and dependent business so that they can operate businesses on advertisements and IT systems during FY 2020.

④ Ensure Equal Footing with Companies in the Same Industry for Global Competition

- Consider the following measures so that Japanese financial institutions can compete with foreign companies in the same industry on the same conditions and make Japanese financial and capital markets more attractive: (a) Ease the regulation on the scope of permissible activities of overseas subsidiaries of banks and insurance companies, and (b) Exclude the information on overseas corporate customers from firewall regulations between banks and securities company. In addition, reconsider the necessity of firewall regulations, including for domestic customers, while paying attention to securing a fair environment for competition.

iv) Promoting Innovations such as the Commercialization of FinTech, etc.

- Regarding coordination between banks and electronic payment providers, follow up on the transition from scraping to API that has a higher level of security.
- During FY2020, work on the development of financial services and administrative operations by utilizing innovations, such as setting up a consortium working on finding solutions for issues on data coordination between FinTech businesses and financial institutions, such as improving security, and, such as holding hackathons to promote compliance with RegTech / SupTech.¹⁴

¹⁴ RegTech means that financial institutions comply with financial regulations efficiently by practical use of IT, and SupTech

- Lead international discussions through positive contribution to the Blockchain Governance Initiative Network (BGIN) to achieve the objects of financial regulations, such as financial system stability, user protection, and AML/CFT, etc., in the decentralized financial system based on blockchain technology, where there are no subjects (intermediaries) applying regulations.
- Advise on interpretations of regulations, IT governance, and risk management to make backbone systems of financial institutions more efficient and sophisticated through the "Backbone System Front Runner Support Hub" that was newly established in March 2020.
- From the point of facilitating the supply of funds to businesses, promote the digitalization of financial administration, such as enabling financial institutions under jurisdiction to submit all applications and notifications to the government in electronic form during FY2021.

means that regulators and law enforcement agencies conduct inspection and supervision efficiently by practical use of IT.

3. Responding to the Digital Market

(1) Major Progress of KPIs

[KPI] Create 50 unlisted venture companies (unicorn) or listed venture companies with more than \$1 billion in corporate value or market capitalization by 2025.

⇒16 companies (as of December 31, 2019)

(2) New Specific Measures to be Taken

In addition to improving citizen's convenience and quality of life towards the transition to Society 5.0, it is necessary to accelerate the DX of the economy and society as a whole from the viewpoint of citizens as people living their lives in order to promote social change that handles the spread of the current COVID-19 infection. As such, it is essential to take measures (the digital minimum) to prevent DX disparity so that regional SMEs and elderly people can enjoy the merits of Society 5.0.

Additionally, promoting the DX of the economy and society will create diffusion flows from centralized cities to regional areas as well as promoting the nationwide development of new digital infrastructure such as 5G, and it is expected that this will realize "digital rural city states" that enhance regional vitality and sustainability.

i) Development of Rules for the Digital Market

① Establishment of the Act on Improvement of Transparency and Fairness in Trading on Specified Digital Platforms

- The Act on Improvement of Transparency and Fairness in Trading on Specified Digital Platforms was enacted in a way that does not impede innovation while supporting transparency of transactional relationships. Enforcement¹⁵ of this law will make the transactional relationship between digital platform operators and users more transparent for large-scale online malls¹⁶ and app stores.¹⁷

② Review of the Act on the Protection of Personal Information

- The Amendment Act of the Act on the Protection of Personal Information was enacted from the perspectives of raised awareness with regards to the handling of personal information, the need to balance utilization and protection of personal information, and ensuring equal footing for foreign and domestic business operators. To facilitate smooth implementation of the amended Act (within 2 years from the promulgation¹⁸), in addition to formulation of detailed rules (on processing level) for

¹⁵ Will come into effect on a date, within 1 year from the date of promulgation (June 3, 2020), that is specified by a Cabinet Order.

¹⁶ A website that aggregates products, etc. from multiple stores into a single website and then sells them.

¹⁷ A website that aggregates software into a single website and then sells it in a download format.

¹⁸ The amended Act will come into effect on a date, within 2 years from the date of promulgation (June 12, 2020), that will be specified by a Cabinet Order..

the system of pseudonymously processed information¹⁹ created to promote data utilization within companies as intermediate forms of information between personal information and anonymously processed information, clarifications will be made on cases²⁰ where cease of utilization or deletion of retained personal data can be demanded, promoting utilization of the system of pseudonymously processed information and demand for cease of utilization or deletion.

- Promote examining methods for the unification of personal information protection systems in the private sector, national governmental agencies, and independent administrative entities, etc., and submit the necessary bill for the ordinary Diet session in 2021. In addition, with regards to the personal information protection systems of regional public organizations as well, conduct concrete examinations, in line with the aforementioned unification of personal information protection systems and based on adjusting practical issues related to regulations, including unification of ordinances, after sufficiently coordinating with the regional side. As such, from the perspective of comprehensive and integrated promotion of personal information protection while taking into consideration the movement for international institutional harmonization, necessary consideration will also be given to the role of the state when it comes to handling personal information from regional public organizations, including increasing the effectiveness of uniformity and coordination by the state regarding rules and operating interpretations for protecting personal information.
- Regarding "Personal Data Trust Bank" that provide personal data to third parties, during FY2020 there will be a review on handling sensitive information and clarification of selection criteria for third parties that are provided with information, and, based on the review's results, guideline on certification of personal data trust bank will be revised by the end of FY2021. Additionally, by FY2021 put together of data collaboration measures such as standard APIs, models for data provision contracts between personal data trust banks and other data providers to realize data portability, and establish of rules for information collaboration and authentication collaboration between personal data trust banks when individuals use multiple personal data trust banks. Furthermore, promote international standardization of personal data trust banks business models and certification schemes.
- In order to promote the utilization of viewership data and establish new business models for broadcasting, promote field trials towards building a system to collect, analyze, and jointly utilize viewership data while taking into account the division of roles between the public and private sectors, and, based on the results, establish guidelines, until the revised Act on the Protection of Personal

¹⁹ The system that allows utilization of personal data without the consent of the principal in question if the data is "processed", such as by deleting the principal's name, on the condition that utilization of the data is limited to internal analyses within the company, from the viewpoint of promoting innovation. Note that it is prohibited to provide such processed data to third parties, except in cases required by laws, because the system of pseudonymously processed information enables to identify specific individuals through collating the data with other information.

²⁰ Formerly, the right to demand for cease of utilization or deletion of retained personal data was limited to cases of violations of the law, such as illegal acquisition of data, but this amendment also adds cases wherein individual rights or legitimate interests may be harmed.

Information comes into effect, for personal information protection and the proper handling of viewership data.

③ Digital Advertising Market

Digital advertising costs have grown to account for 30% of Japan's total advertising costs, but, on the other hand, a variety of issues in the digital advertising market have been pointed out amidst increasing domination by platform businesses, such as sudden changes in systems or rules, opacity in the content of transactions, and dissatisfaction with measures to increase the number of views.

In order to achieve sound and healthy development of the digital advertising market it is necessary to secure the "possibility of choice" for market participants, including for general consumers, by ensuring the fairness of and increasing the transparency of the content of transactions. It is necessary to return to the users' point of view and request reliable and fair data management from platforms operators.

Given that the market is rapidly changing, it is necessary to respond from a cross-perspective (competitive policy perspective and privacy protection perspective) approach and to establish a framework that will not excessively obstruct innovation and that will promote solving problems through innovation.

As for platform operations, there will be a consideration of the pros and cons of adding applicable entities to the Act on Improvement of Transparency and Fairness in Trading on Specified Digital Platforms and the establishment of rules seeking the below points will be advanced.

(a) Improve Service Transparency

Encourage competition for the "quality" of services by requesting easy-to-understand information disclosure regarding the actual state of a service's "quality," such as measures to increase the number of views, and by requiring third-party measurements of the number of times advertisements are displayed.

(b) Promote Fair Competition around Data

As for platform operators with an overwhelming competitive advantage due to the wealth of data obtained through their own search engine, encourage fair competition for data by making it possible for consumers to easily choose default search engine settings and by asking platform operators to provide advertising clients with reaction data.

(c) Address Concerns about Vertical Integration

In consideration of concerns that platform operators will preferentially select their own video sites, etc. over the sites of other companies on advertising mediation services, ensure fairness and transparency by requiring disclosure of measures such as internal rules and system-level allowances.

(d) Ensure Procedural Fairness

In consideration of the fact that system and rule changes by platform operators may be conducted without sufficient advance explanation, require prior notice of the time of change and disclosure of

reasons for changes. In addition, require disclosure of key search engine parameters that affect the number of customers. Procedural fairness will be ensured through these measures.

(e) Respond to Concerns Regarding the Acquisition and Use of Personal Data

With regards to the acquisition and use of personal data, there are questions as to whether explanations to individuals and consent based on these explanations are effectively functioning, so, in consideration of this problem, require disclosure of information regarding the state of internal management of personal data, etc. and disclosure of a clear and easy-to-understand privacy policy.

④ **Development of Rules for Other Digital Markets**

- In order to further strengthen the enforcement of the Japan Fair Trade Commission against antitrust violations by digital platform operators, actively develop and hire officials with specialized knowledge in digital fields in addition to strengthening departments in charge of investigating antitrust violations and reviewing mergers and acquisitions cases. In addition, further strengthen cooperation with competition authorities.
- Regarding consumer transactions mediated by digital platform operators, within 2020 examine developing rules, including a review of the Act on Specified Commercial Transactions and the Consumer Contract Act, from the perspective of securing consumer benefits, such as preventing inappropriate transactions and promoting safer transactions, while being careful not to hinder innovation, and, based on the results of the examination, develop an environment, such as with the necessary legal frameworks, to promote voluntary efforts by businesses.
- Based on the "Report on Medium-Term Vision on Competition in the Digital Market," aim to realize a "Trusted Web" where individuals and corporations can control data in a decentralized manner and manage value so as to rebuild the foundation of trust in utilizing data. Launch a public-private promotion system in 2020, and, in addition to designing technical blueprints and processes, verify the practical application of technologies that can be considered as constituent elements of the Trusted Web, such as "distributed ID," which individuals and corporations can issue themselves but which is also the core of data management.

ii) **Refining Regulations Based on Social Implementations of Digital Technologies**

Previously, a company's business model was regulated by uniform regulations such as the various Business Acts, but it has been pointed out that, going forward, AI utilization will enable companies to significantly improve the functions of products and services that they provide and that the business models of companies that make good use of technology will have a competitive edge, and that such factors will lead to customer-oriented services. On the assumption that digital technology will progress and that the accuracy of situational understanding from data will increase, it is necessary to concretely consider the appropriate form of regulatory systems for the new era while being aware

of the "soft law" approach.

For this reason, demonstration projects will be carried out, from a medium- to long-term perspective, with a focus on the three fields of mobility, fintech and finance, and construction. In addition to identifying problem points and issues related to the form of future regulations, there will be efforts to inquire deeply and expand into other fields.

① **Mobility Field**

- With regards to all processes of the inspection for checking the conformity to each approved type(hereinafter referred to as complete inspection), regulations premised on complete inspection personnel will be reviewed if it can be confirmed that the level of inspections using AI, etc. are equal to or higher than inspections performed by conventional complete inspection personnel. In conjunction with this, the system of audit by Japanese approval authority will be reviewed if it is possible to build a system that continuously confirms and analyzes remote inspection data.

② **Fintech and Finance Field**

- To refine the regulations for professional investors, if the factors relevant to the competence as a professional investor can be identified through analysis of investor's transaction history data etc., regulations for professional will be reviewed so as to consider identified factors.
- In addition, to refine regulations for sales of financial instruments to elderly customers, if the factors relevant to the capability as an individual investor can be identified through analysis of elderly people's transaction history data etc., regulations for financial instruments to elderly people will be also reviewed so as to consider the identified factors.
- Furthermore, to refine the AML/CFT Regulations, study the possibility of more efficient ML/FT risks assessments etc. through the utilization of AI, which are carried out manually by each financial institutions. Based on the results of the study above, AML/CFT regulations will be reviewed so as to conform to the utilization of AI.

③ **Construction Field**

- There will be a review of regulations so that inspections of a building's outer walls, based on the Building Standards Act, can be carried out through the use of drones if it can be confirmed that drones equipped with infrared devices can detect problem areas with an accuracy equal to or better than compared to a 1st-Class Kenchikushi architect using a test hammer to perform strike tests.
- Additionally, there will be a review of regulations so that inspections of elevator rope deterioration, based on the Building Standards Act, can be carried out through the use of sensors if it can be confirmed that permanently installed sensors for inspections can detect problem areas with an accuracy equal to or better than compared to a 1st-Class Kenchikushi architect using the visual confirmation method for deterioration (once a year).

Furthermore, dig deeper into the aforementioned three fields and aim to develop into other fields, including smart security.

- For boilers that are subject to the Industrial Safety and Health Act, during FY2020 the open inspection cycle will be extended to a maximum of 12 years, and, aiming for 2021, a policy regarding regulatory review will be formulated in addition to identifying issues that arise from methods to manage the inspection cycle according to the equipment's condition (CBM) or from introducing voluntary inspections by businesses.
- Additionally, during FY2020 clarify the determining criteria for eligible danger areas under the Industrial Safety and Health Act for anti-explosion regulations concerning the use of electronic devices, etc., and, aiming for 2021, develop a basic policy for regulatory review in addition to identifying issues related to the future state of anti-explosion regulations.

iii) Early Nationwide Deployment of 5G, Promotion of Post-5G, and Promotion of So-Called 6G (Beyond 5G)

① Early Nationwide Deployment of 5G

- In addition to starting 5G service in all prefectures by the end of FY2020, the 5G development plan to FY2024 will be accelerated in order to develop the nationwide 5G networks and promote its utilization.
- Based on the recently enacted the Act of Promotion of the Development, Supply, and Introduction of Specified Advanced Information and Communications Technology Utilization System,²¹ this will be achieved by the tax incentive on (a) advance deployment of advanced transceivers/receivers and so on by nationwide carriers, and (b) 5G(local 5G) infrastructure including transceivers/receivers installed by local businesses and so on while ensuring cyber security. Through this, Japan will quickly and intensively develop a safe and secure 5G information and communication infrastructure while fostering trustworthy vendors and expanding their overseas activities through international cooperation.
- In order to steadily promote nationwide development of ICT infrastructure such as 5G and the fiber optics that support it, substantial support will be provided while considering the division of roles between the private and public sectors, such as promoting area development projects to implement mobile phone coverage in regions with unfavorable conditions and establishing a one-stop window for the development of base stations that utilize public facilities.
- Additionally, from the perspective of wiring schools for ICT and supporting work-from-home, home-based learning, and home-based medical treatment, etc., promote the development of fiber optics that utilize the Project to Promote Advanced Wireless Environment, and work to promote a shift

²¹ Will come into effect on a date, within 3 months from the date of promulgation (June 3, 2020), that is specified by a Cabinet Order.

from "public" to "private" for broadband infrastructure players in order to improve efficiency in light of Japan's declining population, etc..

- For the utilization of 5G by various actors, promote the construction of a local 5G utilization model for resolving regional issues in addition to establishing a system in 2020 for expanding local 5G bandwidth, and provide comprehensive support such as disseminating results, strengthening matching between users and vendor companies, and support for plan introduction.
- Regarding 5G networks, in FY2020 build the test bed necessary for technical verification to ensure interoperability between different vendors, and realize the construction of highly flexible and scalable 5G networks by supporting market expansions in fields where Japanese vendors have strengths.

② Promotion of Post-5G

- In the future, 5G enhanced with even more simultaneous connections and ultra-low latency functions (referred to as 'post-5G' in this instance) is expected to expand to industrial applications.

As such, information and communication systems compatible with post-5G and related technologies, such as semiconductors used in the systems, will be developed so that post-5G can be the pillar of competitiveness for Japan's core industries, such as industrial machinery and automobiles. In addition, there will be efforts to develop manufacturing technology in order to secure technology that can, in the future, domestically manufacture the state-of-the-art semiconductors required for post-5G.

③ Promotion of So-Called 6G (Beyond 5G)

- Around 2030 it is expected that so-called 6G (Beyond 5G) will be introduced as the next generation mobile communication system. Beyond 5G is critical infrastructure in the Society 5.0 era, offering features that exceed 5G and post-5G, such as ultra fast and large capacity, ultra low latency, ultra numerous connectivity, ultra low power consumption, and ultra security and resiliency. Beyond 5G, in addition to being utilized by each and every organization and industry as a basic foundation supporting citizen's lives and economic activities, is also deeply involved in Japan's security.

Other countries are already advancing the strategy of seamlessly transitioning to Beyond 5G, and it will be a competition to implement a new future that fuses human wisdom and technology in all fields. In Japan as well it is necessary from now on to make upfront investments in Beyond 5G and aim to secure a share.

Specifically, Japan will accelerate research and development of state-of-the-art technologies such as all-photonics networks,²² low power consumption semiconductors, and quantum

²² A communication technology that transmits and exchanges information from end to end on a communications network using optical signals as they are, without converting them to electricity.

cryptography,²³ which are the keys to realizing Beyond 5G.

In addition, joint international research from the initial research and development stage will be promoted and efforts to have international standards reflect technology of Japanese companies will be advanced. In order to do that, a system for global public-private partnerships will be established.

In addition, joint international research from the initial research and development stage will be promoted and efforts to have international standards reflect technology of Japanese companies will be advanced. In order to that, a system for global public-private partnerships will be established.

- Regarding the research and development of advanced core technologies, the state will provide the necessary support, and, for a limited period of time, strongly and intensively promote it. Additionally, in order to realize the world's highest level of research and develop environments, in addition to establishing a base function that enables government, industry, and academia to collaborate internationally to promote research and development, prompt review of mitigating license procedures for experimental use of radio stations provided certain conditions are satisfied, and measures will be taken in order from what is possible.
- Regarding international standardization and the acquisition of intellectual property, a base function will be established that allows major players from government, industry, and academia to strategically work on standardization and acquisition of intellectual property, and these activities will be strongly supported. Moreover, in addition to promoting international collaboration from the research and development stage of core technologies, the government will promote the standardization and implementation of desirable standards for Japan under international collaboration by opening, to domestic and foreign private companies, the interconnected/interoperable test beds between different vendor devices and the radio wave emulators.
- For early realization of an "Environment in which 5G is fully utilized," which is the prerequisite for early and smooth implementation of Beyond 5G, build cloud-based systems where 5G solutions can be used easily and inexpensively. In order to do so, implement domestic and overseas demonstration projects, deploy the results of them via cloud, and build an environment to operate regionally distributed data centers as a virtual, massive, and unified cloud. In doing so, in cooperation with smart cities and super cities, an environment is created in which bold demonstrations may be carried out freely and flexibly conducted, such as using a whole town as a living test bed. Additionally, research and development related to ensuring security, instant recovery in the event of a disaster and demonstration projects to advance cloud utilization amongst regional businesses and SMEs is also promoted.
- A verification environment for users is developed ahead of schedule and the usage policies of the

²³ A next-generation encryption technology in which information such as the "key" used for encryption and decryption is sent on so-called "quantum" particles, such as photons. The state of these particles changes if an unauthorized party attempts to read the particles, and eavesdropping or information leakage can be prevented by detecting these changes in state.

Japanese version of Colosseum are verified by the end of FY2021 in addition to developing and maintaining radio wave emulator by FY2023 that is expected to verify new, radio wave systems in cyberspace on a large scale and with high precision, accelerate free and agile development via remote use from regional universities, and contribute to creating innovation (Japanese version of Colosseum).

iv) International Discussions and Development of Data Flow Rules at the WTO, etc. Toward Realization of DFFT

- Accelerate international rule-making on the digital economy, especially data flow and trade-related aspects of electronic commerce, based on the concept of “Data Free Flow with Trust (DFFT)”, with multi-stakeholders participation including industries through various international fora and organizations such as the WTO and the OECD, under the Osaka Track which was launched at the time of the G20 Osaka Summit.
- Support the Global Technology Governance Summit (GTGS) that the World Economic Forum and the World Economic Forum Centre for the 4th Industrial Revolution will hold in Japan in April 2021, and, in addition, there will be programs led by private-sector mainly on healthcare, smart cities and mobility, and efforts to realize governance innovation based on DFFT, utilize the GTGS to disseminate the results of Japanese policies that support various programs.
- To maintain and establish trusted international frameworks for personal data flows, the framework between Japan and the EU will be reviewed toward the beginning of 2021. Furthermore, the government will lead tripartite dialogue amongst Japan, the US, and the EU to further promote personal data flows utilizing the existing frameworks and promote discussions on establishing a new interoperable corporate certification system. Additionally, the government will lead international discussions regarding a review of OECD Privacy Guidelines in light of the new risks surrounding personal data protection, such as Data Localization and Unlimited Government Access.

v) Promoting DX (Digital Transformation)

- In order to encourage voluntary corporate efforts related to DX, during FY2020 prepare a digital governance code for the actions required of management, such as the establishment and publication of a management vision that is based on social transformation by digital technology, and aim to disseminate the digital governance code in cooperation with various industry groups. Additionally, establish a system for the state to certify companies that comply with the basic items of the digital governance code, and, starting from FY2021, aim to link the two, such as by utilizing them as a premise for the selection of "DX Stock" implemented by the Tokyo Stock Exchange and the Ministry of Economy, Trade and Industry.
- From FY2020 begin formulating indexes by industry that are effective at promoting evaluation by stakeholders such as shareholders of the status of DX initiatives by individual companies so as to

develop responsiveness in industries considered to be greatly affected by the digital transformation of industrial structures, such as manufacturing.

- In order to promote appropriate DX even for unlisted companies and SMEs, promotion of the digital governance code and selection of outstanding companies will begin during FY2020.
- Supporting water supply utilities nationwide in introducing the system of utilizing water supply information is implemented, and it is aimed to be expanded to other infrastructure companies, as an example of a common system in non-competitive areas considering the results of surveys related to embedded software. From FY2020, the scope of sharing information will be organized and data formats will be standardized.
- Amidst the progress of cyber / physical integration in FY2020, the "Digital Architecture Design Center," will start leading-role projects in the three fields of (a) regulatory, (b) governmental and public procurement, and (c) industrial foundation, to formulate ("digital architecture") that will be the basis for promoting cooperation and utilization of data amongst multiple operations.
- To promote the distribution and utilization of content in the digital era, the related policies, including a copyright system that corresponds to reality, in regards to easier access to content that is not being distributed in the market, rights handling and profit sharing in regard to copyrighted works, and creating new businesses, will be examined. In doing so, sufficient consideration should be given to the views of stakeholders and the interests of appropriate rights holders. During 2020 these specific issues and examination directions will be collected, primarily by an examining body established under the Intellectual Property Strategy Promotion Secretariat. Afterwards, the relevant ministries and agencies will promptly consider and take necessary measures.
- Regarding usage methods for ICT devices and services and for the creation of digital utilization support personnel that will allow elderly people to consult and learn in familiar places, advance examinations of the necessary systems development and work to build a basic framework during FY2020 for support personnel activities and implementations systems, etc. Implement it in earnest from FY2021 while taking into account the division of roles between public and private services.
- Promote the spread and establishment of the sharing economy in society while improving safety and reliability. To that end, start a training and certification system from FY2020 to expand the base of share workers, improve skills, and improve service quality in addition to putting out the basic items that service providers must comply with. In addition, during FY2020 create a handbook for municipal governments to promote utilization of the sharing economy to solve regional issues.
- For smooth provision of public services through co-creation and mutual assistance in times of emergency, a model cooperation agreement to promote cooperation between sharing businesses and local governments, including in disaster prevention fields, and a handbook for businesses will be created during FY2021 in collaboration with the Sharing City Council.

vi) Ensuring Cyber Security

- In order to handle the expanding risks associated with the increasing complexity of cybercrime / cyber-attacks and the growth of teleworking and distance education due to the impacts of COVID-19, the government established an annual plan for cyber security, "Cybersecurity 2020 (provisional title)," will ensure the cybersecurity of the Tokyo 2020 Olympic and Paralympic Games held in 2021 (hereinafter "the Tokyo Olympics and Paralympic Games" with a view to the future, will enhance and strengthen the operations of the National center of Incident readiness and Strategy for Cybersecurity, will establish a technical verification system for supply chain risks, and will steadily implement necessary efforts, such as promoting the integration of DX and cyber security.
- In order to promote security measures across the entire supply chain, including SMEs, launch the Supply Chain Cyber Security Consortium (provisional name) during FY2020 in collaboration with industry, and encourage participating companies to comply with the basic action guidelines for strengthening risk management. In conjunction with this, visualize SMEs that utilize security services fulfilling certain criteria, and promote transactions between SMEs working on appropriate security measures and large companies / industry groups that are participating in the Consortium.
- With regards to mechanisms (trust services) to prevent data falsification and sender spoofing, in order to secure the authenticity and reliability of data and to ensure international interoperability:
 - "Time stamp" proves that electronic data existed at a certain time and that it has not been tampered with after that time. The national certification system on Time stamp will be established and started in FY2020/21, and necessary efforts will be made so that it becomes a public effective means for sending and receiving electronic documents.
 - By using "e-seal," instead of a company's official square seal that has been used on paper documents until now, an organization that issued electronic data such as invoices can be easily confirmed, which is expected to improve the efficiency of intra and/or inter-company businesses/transactions.. In order to establish a private certification system based on certain standards, a wide range of use cases will be examined and technical requirements will be sorted out in FY2020.
 - "Remote signature," in which the signer's signature key is managed on a cloud server and the signer remotely makes an electronic signature, will be examined based on trends in technology and operations, and its legal position under the Act on Electronic Signatures and Certification Business.
- In order to break up the situation wherein technology and information related to cyber security are overly dependent on foreign countries, build a system platform for collecting, generating, and providing Japan original cyber security information by FY2021. In addition, promote domestic cyber security product development and human resource development by establishing the product verification and training environments that utilize information from the system platform and opening up to the industry and academia.
- Promote efforts to increase the sophistication of information sharing platforms for sharing and

utilizing threat information and vulnerability information so as to contribute to the construction of an active defense system in industries such as the information and communications fields.

- In order to ensure the security of smart cities, which involve a variety of actors, requirements and matters to be confirmed for the operating structures and systems of smart cities will be clarified within FY2020, and the implementation of necessary security measures will be promoted.
- In order to respond to the rapid expansion of factory automation, during FY2020 develop guidelines related to IoT device security measures, and summarize the basic direction with regards to security for control systems, etc.

4. Promotion of Open Innovation

(1) Major Progress of KPIs

[KPI] By 2025 triple corporate investment in universities and national research institutes etc.

⇒143.1 billion yen (FY2018 actual results)

[KPI] Create 50 unlisted venture companies (unicorn) or listed venture companies with more than \$1 billion in corporate value or market capitalization by 2025. (Repeat)

⇒16 companies (as of December 31, 2019)

[KPI] In the next 10 years (ending in 2023), the time required for the acquisition of rights will be halved to an average of 14 months.

⇒FY2018 actual average: 14.1 months

[KPI] Improve labor productivity in the manufacturing industry to more than 2% annually

⇒1.1% (2016~2018)

[KPI] By 2025 visualize the operating status of individual machines and increase the percentage of companies that are working on process improvements or plan to make them to 40% or more.

⇒32.1% (2019)

[KPI] Improve ROA of large Japanese companies (TOPIX500) to the level which is comparable to those of US and Europe by 2025. (Reference: Average ROA for the US and Europe in FY2019 was 4.8%)

⇒ Japan (TOPIX500): 3.3%

America (S&P500): 5.7%

Europe (BE500): 3.9%

(for FY2019)

(2) New Specific Measures to be Taken**i) Investment in Start-up Companies****① Open Innovation Promotion Tax System**

For domestic companies or CVCs investing 100 million yen or more in startup companies that were founded less than 10 years and still unlisted, as well as small and medium-size enterprises which drive local economies and invest 10 million yen or more in aforementioned startup companies, the Open Innovation Promotion Tax System was introduced to provide 25% tax deduction. In order not to weaken investments in startup companies due to the impact of COVID-19, supply of new funds to start-up companies that play a leading role in innovation will be promoted, which leads to their growth.

② Promotion of the Asia DX Project

As an opportunity to change the corporate culture of Japanese companies, the government is promoting the creation of new businesses in collaboration with companies in emerging countries as the "Asia DX Project." A digital transformation promotion team was established in the Japan External Trade Organization (JETRO) in December 2019, and JETRO and Japanese overseas diplomatic missions will work together to promote cooperation between companies in emerging countries and Japanese companies, such as uncovering promising companies in emerging countries and coordinating with local governments.

Through these efforts and in collaboration with the Ministry of Economy, Trade and Industry and related ministries, the first several pioneering companies will be highlighted, creating a leading model that causes the "Peer Effect."

③ Creating and Developing Startup Companies that are Active Globally

- Amidst concerns about a decrease in startup investment, public funds will support the supply of growth capital and the formation of venture capital funds.
- Based on the "Support Package for Startup Ecosystem Formation" that was compiled in July 2020, support startup companies that drive growth and social change under the "new normal," including startup companies working on digitalization, remote-ization, and implementing robots.
- For each startup ecosystem base city, support their autonomous formation such as implement support programs for global accelerators in FY2020.
- Strengthen support for the J-Startup program by starting support for overseas expansion via matching with domestic and overseas accelerators, etc. in FY2020.
- Focus on holding domestic and overseas startup company related events in FY2021 as the "Global Venture Summits (provisional name)."
- In preparation for the new Japanese version of the SBIR system, based on the revised Act on Vitalizing Science and Technology and Innovation Creation (comes into force in April, 2021),

beginning operation from FY2021, there will be consideration of methods to set annual expenditure targets for startup companies in the research and development budgets of various ministries, and development of uniform rules for designated projects with regards to the startups of various ministries such as presentations of research and development issues based on policy issues and public procurement needs in public offerings.

- To create a managerial human resources market for startup companies, from FY2020 there will be development of requirements for human resources, such as expertise and background, and information will be sent to candidate managerial human resources.
- To facilitate the financing of startup companies, there will be a review of issues related to capital policy, such as trading opportunities for unlisted stocks and limited financing via borrowing from financial institutions, a promptly improvement of the financing environment during FY2020. .
- Guidelines will be developed in FY2020 in order to establish a system for local public institutions to register and certify startups that are working on regional revitalization SDGs.

ii) **Optimizing Contracts Between Large Companies and Startup Companies**

It is critical to further improve Japan's competitiveness through cooperation between large companies and startup companies by fostering and utilizing human resources that take on new challenges.

On the other hand, a situation of imbalanced contracts has been pointed out by some startups, where, in collaborations between large companies and startup companies, the large companies will monopolize patent rights when the startup company performs joint research with a large company, and the surrounding or auxiliary patents will be walled off by the large companies.

When the Japan Fair Trade Commission conducted a fact-finding survey of startup companies (unlisted companies founded less than 10 years ago) and whether they had accommodated unsatisfactory conduct in transactions and contracts in collaborations with other companies (large companies, etc.), it came to light that 75% of the responding startup companies replied in the affirmative to the question "Do you have experience accommodating unsatisfactory behavior from other companies?"

Additionally, the fact-finding survey also revealed the following types of situations as concrete details of the unsatisfactory conduct.

(a) Nondisclosure Agreements (NDA)

There were unilaterally advantageous provisions for the large companies, such as short non-disclosure periods and only the startup companies having to disclose secret information.

(b) Proof of Concept Agreements (PoC Agreements²⁴)

²⁴ Proof of Concept agreements are conducted to quickly and easily determine the feasibility of joint research before entering

Despite being asked to carry out additional work beyond the scope of what was originally agreed to, no contract documents were presented for the additional work and ultimately no equivalent compensation was paid.

(c) Joint Research Agreements

Conditions that rights to a new invention belong to the large corporation even if the invention was newly created primarily by the startup company's know-how.

(d) License Agreements

Requests to provide non-compensatory licensing.

Based on the results of this kind of fact-finding survey, a standard Model Contract (Ver. 1.0) was first created and published so that startup companies with weak legal departments are able to appropriately respond to these problems.

Going forward, the Japan Fair Trade Commission and the Ministry of Economy, Trade and Industry, after conducting further fact-finding surveys of startup companies, will jointly draft a guideline summarizing problem cases in various agreements, specific directions for improvement, and guidelines that established the approach²⁵ behind the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade by the end of the year and start public comment procedures.

iii) Promotion of Business Restructuring, Including Spin-Offs

- In order for existing companies to successfully innovate, it has been pointed out that it is necessary to have an "ambidextrous organization" (O'Reilly & Tushman (2016)) that can simultaneously (a) experiment with and act on new businesses, and (b) streamline existing businesses and perform gradual improvements (deepen knowledge).
- To make it easier for existing companies, including large companies, to engage in "ambidextrous management," it is necessary to (a) promote collaboration through M&A of startup companies, and (b) improve the environment for business restructuring, including spin-offs.²⁶
- The spread of COVID-19 should be considered as accompanying major changes in industrial structure, and companies will need to review their business portfolios, cut out non-core businesses, and further promote ambidextrous management. It is important, particularly for large companies, to proactively carry out business restructuring in order to improve corporate value.
- For this reason administrative guidelines will be formulated to facilitate business restructuring, including spin-offs, and there will be consideration of legislative measures to facilitate business

into full-scale joint research.

²⁵ For example, summarizing cases that may be subject to abuse of superior position or transactions with binding clauses (transactions with conditions or clauses that unreasonably restrain the business activities of the counterparty).

²⁶ A method of splitting a company by transferring the shares of a subsidiary to shareholders.

restructuring and to promote businesses to address it.

- With regard to M&A in exchange for shares, from the point of securing global equal footing, consider measures to promote the use of the "share deliver system" established in 2019, with the prospect of implementation in FY2021.

iv) Building an Autonomous Innovation Ecosystem

The spread of COVID-19 has had a widespread impact on the innovation ecosystem. The economic impact on startup companies will become noticeable, and there are fears that the open innovation of industry, academia, and government, which is a source of new startup companies, may also stagnate. Furthermore, there is concern about the suspension or delay of research and development by universities and private companies, especially of joint international research.

On the other hand, it is important to quickly solve emerging social issues through innovation and implementation as social systems and lifestyles rapidly change due to the spread of the infection.

Under these circumstances, measures will be taken with a sense of speed to maintain Japan's innovation ecosystem, transform it into energy for advancing social transformations brought about by the spread of infection, and mobilize the power of industry, academia, and government to realize growth under a "new normal."

① Promoting Open Innovation through Industry, Academia, and Government

a) Promoting Corporate Open Innovation

- From FY2020 strengthen the supply of risk money by the Development Bank of Japan (DBJ) to areas where it is difficult to supply private capital, such as investment in open innovation by large companies and startups, large-scale investment in startups, and initial regional investment seeds. Additionally, provide capital funds through the DBJ's " Novel Corona Revival Growth Foundation Enhancement Fund " to support the rapid and steady recovery and growth of companies.
- Establish an environment for the utilization of on-site factory data, etc. in order to promote research and development and implementation of software by private companies.
- Establish a new branding system for companies that take up the challenge of management innovation. Create selection criteria, etc. during FY2020 and promptly select brand companies.

b) Strengthening the Innovation Ecosystem through Industry-Academia-Government

Fusion

- Review regulations concerning research and development corporations in the Act on Activating Science and Technology and Innovation Creation (comes into effect in April 2021) in order to enable investment in foreign corporations that conduct joint research utilizing the research results of universities and research and development corporations, and revise the system in FY2020 for national universities. Additionally, consider reviewing related surveys from FY2020 in order to

analyze the effects of the system revisions.

- Simplify the application forms for establishing the Collaborative Innovation Partnership (CIP) and clarify the approval examination procedures and business operation contents through revising the guidelines for establishment and operation of CIP so as to promote external collaborations utilizing CIP in addition to further reviewing the system, including legal measures, during FY2020.
- In order to build graduate school education that meets social needs, grasp, analyze, and laterally expand university and industry cases at the "PEAKS University Support Forum," aiming to start in FY2020. Additionally, consider concrete measures around during FY2021 based on the proposals related to the finance and accounting methods compiled by PEAKS for the 4th medium term target period for national universities.
- Promote joint industry, academia, and government research and development aimed at forming innovation ecosystems related to regional revitalization and at solving social issues after COVID-19's spread and resolution, including research and development and implementation of blockchain technology, enabling safe and efficient exchange of important data such as financial and medical data, and of robots and sensors, which are required for shifting to remote and unmanned technologies.
- Enhance training and support for project leaders from FY2021 in order to strengthen the coordinator function of the "Program to Create Industry-University Fusion Leading Model Bases."
- Full-scale implementation from FY2021 for accompaniment support related to international expansion and business creation for selected organizations in the "Regional Open Innovation Base Selection System."
- The National Institute of Advanced Industrial Science and Technology (AIST) will establish a test environment for smart factories during FY2020 and support converting SMEs to IoT.
- Strengthen the functions of the "Public / Private Young Researcher Discovery Support Project" in addition to establishing a forum for dialogue between industry and academia in 2021, and strengthen human resources development by compiling methods of recurrent education in fields where the industrial world has high needs.
- Reinforce the "Basic Framework for the Cross-Appointment System and Points to Note" (formulated on December 26, 2014) in FY2020, review salary levels through blended salaries utilizing external funds, disseminate information on incorporating good examples of work load reduction, and promote utilization of the system.

② Higher Education and Research Reforms

a) Using University Reforms to Strengthen the Function of Universities as a Base for Accumulating Knowledge and Human Resources

Sources of added value will shift to "knowledge" with the Fourth Industrial Revolution. Human resources that generate "knowledge" and places that create added value by giving rise to "knowledge" interactions are critically important. The functions of educational research institutions

such as universities will be expanded, and there will be efforts on various policies from the perspective of universities functioning as places to create added value.

- Promote the training of advanced medical personnel in university hospitals in order to strengthen the functions of university hospitals for overcoming COVID-19.
- Based on opinions from external experts' meetings regarding the "National University Governance Code," which was formulated at the end of FY2019, confirm the status of conformity to the code as announced by each national university during FY2020.
- Institutionalize the "University Cooperation Promotion Corporation (provisional name)" around the summer of FY2020, and promote cooperation and division of functions among universities regardless of the categories national, public, and private.
- Formulate guidelines around the summer of FY2020 in order to build a "Regional Cooperation Platform (provisional name)" as a constant system for regional universities to discuss the future regional image together with local governments and industry.
- In consideration of the importance of fostering human resources that take into account regional characteristics and needs, formulate a reform package within this year for realizing attractive regional universities by, for example, increasing the admission capacity, of regional national universities that conduct STEAM education and education and research on combining fields and then implement the outputs in the society.
- Review²⁷ operating expense grant methods for the 4th medium term target period for national universities, and reach a conclusion during FY2021.
- In order to strategically manage the realization of function expansion for national universities, review governance systems, evaluations, capacity management, and diversification of financial resources for transitioning the check method of autonomous contractual relationships between national universities and Japan from pre-regulation to post-check, and reach a conclusion during 2020.

b) Improving Research Capabilities

In cooperation with industry, academia, and government, and based on the "Comprehensive Package for Strengthening Research Capabilities and Supporting Young Researchers" (January 23, 2020 decision by the Council for Science, Technology and Innovation), advance reforms for (a) drastically improving the research environment for young researchers, (b) ensuring sufficient time for research and educational activities, (c) ensuring diverse career paths for research personnel, and (d) creating attractive doctoral programs for students.

- In order to promote the development of young human resources and the establishment of joint usage facilities and data coordination platform for universities, that conduct world-class, research and development a world-class fund will be established through collaboration among universities based on the result of a reviewing acceleration of university reform, adjustments of existing efforts, and

²⁷ Review of mechanisms, etc. allowing universities to undertake reforms based on consistent evaluation indicators.

collaboration with the private sector. The fund will realize a mechanism for building a world-class research foundation by utilizing the operating profits.²⁸

- Call for research ideas centered on young researchers, implement an emergent research support project that continuously provides research capital for a maximum of 10 years in order to provide stable support for a long time period, and secure an environment in which researchers can freely concentrate on challenging research.
- Foster high-level knowledge professionals in the WISE Program who are globally active in joint overseas research and in industry-academia collaborations, with the viewpoint of contributing to diversity of knowledge in the world.
- With regards to competitive research funds, a review for priority support to young researchers and for ongoing support to researchers (from when they are young until when they are senior, and from basic research to application) will be conducted and concluded around during FY2020.
- Promote participation in the international research community by further promoting joint international research programs such as in infectious disease research, deepening international and interdisciplinary brain circulation through the World Premier International Research Center Initiative (WPI), and through horizontal development of WPI results. Additionally, promote research that utilizes knowledge in the fields of humanities and social sciences.
- By FY2021 guidelines for sharing research facilities and equipment will be developed to, promote relevant universities to establish and announce their policies on sharing their research facilities and equipment. Additionally, to build efficient research systems, the digitization and remote-ization of shared research facilities and equipment will be promoted by, introducing experimental equipment that can be operated remotely, etc. Also the development and sharing of research equipment (enhancing core facilities) through centralization, etc. will be promoted. Furthermore, a development plan will be formulated during FY2020 for facilities such as national universities that can flexibly respond to research needs in addition to strategically utilizing cutting-edge and large-scale research facilities, equipment, and devices.
- Take advantage of policy analysis databases (e-CSTI) that link data such as public research funds, papers, and university finances, during FY2020 compile an analysis of effective funding allocation, and utilize it in formulating the next "Science and Technology Basic Plan." Additionally, maintain and strengthen the innovation ecosystem by strengthening research and analysis capabilities and promoting EBPM.²⁹

c) Promoting Strategic Research and Development

²⁸ The major university funds in the world are Harvard (approx. 4.5 trillion yen), Yale University (approx. 3.3 trillion yen), and Stanford University (approx. 3.1 trillion yen), etc., with university funds in the US totaling approx. 65 trillion yen. As for other funds: Cambridge University (approx. 1.0 trillion yen) and Oxford University (approx. 820 billion yen)

※2019 figures for each university, and 2017 figure for the US university total (all latest)

²⁹ Evidence-based Policy Making

- Apply the common architecture formulated in the SIP in FY2020 to realize smart cities and promote inter-city cooperation, and utilize various types of model projects, etc.
- • Based on the "Directions for Science and Technology and Innovation To Realize 'Safety and Security'" (January 21, 2020 decision by the Integrated Innovation Strategy Promotion Council), while promoting efforts to prioritize allocation of budgets and human resources to important technical fields and to take preventative measures against technology outflow, consideration to create a system that matches seeds and technological needs will be advanced, and implement matching on specific cases will be implemented by the end of FY2020. Additionally, relevant ministries and agencies will collect and share information on technology outflow to foreign countries via various routes such as theft of information in cyberspace, corporate acquisitions, and the international movements of students and researchers due to the internationalization of research activities and corporate activities. Coordinated measures will be promoted while paying attention to foreign policies on sensitive technology management, etc. At the same time, considering the viewpoint of securing and maintaining Japan's technological superiority, examination and construction of frameworks and systems of disclosure / non-disclosure of research results, publication of patent applications and publication of patents, acceptance of research funds from foreign countries, acceptance of international students and foreign researchers, and the form of qualifications for individuals who handle important technical information will be promoted. In advancing these efforts, to prevent researchers restraining themselves excessively, close attention will be paid to making the efforts predictable and aligning them with the concept of open science promoting the dissemination of research results and with the policies promoting science and technology by promoting joint research with foreign countries.
- Consider the following efforts to strengthen "material innovation power" and formulate a governmental strategy.
 - From 2020, establish common guidelines for handling material data, formulate a common format for data from measurement and analysis devices, and create a database of patent information for AI learning.
 - From FY2020, promote consideration of establishing core bases for data storage, development of shared facilities and equipment that can obtain high-quality data, and research and development projects that drive the use and creation of data, and then implement them promptly.
 - Present policies to build innovation ecosystems for important technology, application areas, and materials, and promote research and development and base formation in order to achieve them.
 - Lead international standardization related to material measurement methods.
- Based on the "Bio Strategy 2020 (Basic Measures)" (June 26, 2020 decision by the Integrated Innovation Strategy Promotion Council), in FY2021 begin certification of bio-innovation cities in

addition to promoting research and development that should immediately be undertaken as countermeasures to COVID-19, and strengthen ESG investment inducements in certified cities and strengthen the establishment of bio-manufacturing demonstration functions for vaccines, etc. Additionally, develop guidelines for cooperation and utilization of biodata, and develop the results of the "Tohoku Medical Megabank Project," which is genomic data infrastructure. Furthermore, by winter 2020 formulate the "Bio Strategy 2020 (final market area policy version)" that incorporates further efforts related to COVID-19 countermeasures, market size targets for 2030 that reflect changes in economic conditions, and a roadmap of measures.

- Based on the "AI Strategy 2019"(Integrated Innovation Strategy Promotion Council Decision on June 11, 2019) and its follow-up, promote research and development and social implementations of foundational AI technologies, and start a certification system for mathematics, data science, and AI education programs in FY 2020.
- Based on the "Quantum Technology Innovation Strategy" (January 21, 2020 decision by the Integrated Innovation Strategy Promotion Council), from FY2021 begin research and development of test machines for quantum cryptographic satellites while also promoting priority support for research and development in areas such as quantum-hybrid innovations and for formation of a quantum technology innovation base (international hub), etc.
- Based on the "Industrial Technology Vision 2020 (May 2020)," which compiled research and development directions for important technology groups in which Japan should concentrate resources for 2050, during FY2020 formulate individual technology strategies for key technology groups that will be the basis of Society 5.0, and focus on promoting their research and development.
- By FY2021 begin sharing the "Fugaku" supercomputer, and promote utilization for simulation research in order to solve social issues, such as giving precedence to utilization for COVID-19 research.
- Steadily promote development of a next-generation synchrotron radiation facility in line with the division of roles in the public-private partnership.
- Enhance the communication environment of the Science Information NETwork (SINET) and expand its upper-layer, such as data management, publication, and discovery. Additionally, facilitate companies to utilize high-performance computing environments equipped with real-time data collection and analysis functions.
- Actively utilize SINET as the foundation of a data circulation society to build an inclusive society that utilizes universities, and promote utilization of data, such as cooperation with the GIGA School concept and analysis of medical receipt data. Additionally, aim for integrated data analysis in order to implement evidence-based measures against infectious diseases.

③ Promoting Strategic Intellectual Property and Standards Utilization

- Based on the Intellectual Property Strategic Plan, promote measures to realize a value design society,

such as encouraging the use of intellectual property and standards from the research and development concept stage.

- In addition to expanding the use of management design sheets and promoting the organization of those responsible for their spread, establish and publish during FY2020 basic guidelines for disseminating "value design management" which design management.
- In order to promote intellectual property creation education that fosters the creativity of children and students in primary and secondary education, review requirements during FY2020 for schools that can be promotion bases, in addition to holding demonstration classes nationwide and develop selection methods.
- Regarding pirated editions of intellectual property on the Internet, implement comprehensive measures based on the October 2019 "Menu of Comprehensive Measures" and on the process chart, such as promoting the distribution of official versions and strengthening international cooperation and international enforcement.
- Provide hands-on support, based on the Regional Intellectual Property Activation Action Plan that was revised in July 2020, in order to build an intellectual property strategy that contributes to the growth of regional SMEs.
- Aiming for within FY2020, Consider the form of a patent system suitable for the AI / IoT area, including strengthening dispute resolution functions.
- In order to strategically utilize standards for the social implementation of technologies and resolving social problems, establish a system for external consultation and coordination of cross-disciplinary themes at the Standardization Promotion Center that was established at AIST in July 2020. From FY2020 establish a system at New Energy and Industrial Technology Development Organization (NEDO) to examine the necessity of standardization for individual projects. In cooperation with these organizations, compile an action policy during FY2020, including strengthening the support system across ministries.
- As for original standardization activities by SMEs that do not go through industry groups, from FY2020 implement support for strengthening business strategy perspective so as to achieve a high business expansion effect.

v) **Next-Generation Industrial Systems**

① **Promoting Data Coordination and Utilization in Supply Chains**

- Conduct verification of mechanisms, established in 2019, to circulate data beyond a company's boundaries in order to maximize utilization of valuable data at manufacturing locations, and then start actual operation in FY2021.
- Work on digitizing automobile design and development in order to increase the sophistication throughout the supply chain of Japan's "suriawase" method for adjusting and reconciling. For this reason, work to create a highly accurate standard model that can simulate the fuel efficiency and

driving performance of next-generation vehicles so as to spread and popularize development utilizing simulations (model-based development (MBD)), including to suppliers.

- Formulate guidelines during FY2020 for cooperation between manufacturing processes via digitalization and for strengthening design capabilities in order to strengthen corporate transformation capabilities (dynamic capability) to respond to unexpected situations such as occurrences of supply chain disruption risk. Additionally, work towards technological development and creation of precedents for full-scale utilization of information and communication technology, such as 5G, at manufacturing locations.
- In order to promote efforts (smart safety) to improve safety and efficiency in industrial security through utilization of new technologies such as IoT and AI, in FY2020 launch the "Public-Private Council on Smart Industrial Safety," and formulate an action plan to flexibly and effectively review safety regulations while promoting companies' advanced efforts.

② Social Implementation, of Robotics Technology

- Promote standardization and normalization related to user-oriented robot development, data linkages, communications, and facility design, etc. to realize a change to remote operations, labor savings, and automation in service fields such as facility management, retail, food and drink, and food products, etc.
- Promote the creation of future robot and IoT technology bases in Japan, including regional robot contests that contribute to robot-related learning and education for high-school students, vocational school students, and university students.
- In order to promote the introduction of robots for SMEs, compile a list of companies that work on supporting productivity improvements for SMEs, such as consultants, robot system integrators, and financial institutions, and hold matching events between these businesses and SMEs.
- Consider on-location training and educational curriculum for teachers at students at robot makers, educational institutions, and vocational skills development institutions that participate in the "The Consortium of Human Education for Future Robot System Integration" (established in June 2020).
- Understand and examine issues related to introducing competitive occupations that use "industrial robots" to that National Skills Competition by FY2022.
- The "World Robot Summit," an award-based competition using robots, will be held at Aichi International Convention & Exhibition Center and at Fukushima Robot Test Field in FY2021.

③ Expanding the Aircraft Industry

- Expand the risk money supply through the DBJ, etc., in addition to providing research and development support for technologies such as electrification, composite, and automation that contribute to future aircraft development, and promote the entry of Japanese companies into the aircraft market. In addition, with regards to critical parts materials, for which Japan is highly

dependent on foreign countries, promote domestic locations, based on a survey of domestic supply systems that will be conducted in FY2020, through collaborations between customers and materials producers, and promotion of research and development and capital investment.

- For future completed-aircraft businesses, including for Mitsubishi SpaceJet, establish a system, b which supports sales after development and which maintains safe operation of mass production aircraft by the time those aircraft enter into service, while conducting appropriate safety reviews..

vi) Promoting Reforms of Corporate Governance

- To realize further increase in corporate value in the mid/long term, revise Japan's "Corporate Governance Code" in FY2021 after examining issues such as further promotion of management in consideration of capitals costs such as implementing business portfolio strategies (and consider coordination with the guidelines for promoting business restructuring, as stated in section iii above), enhancement of group governance including the improvement of the governance of listed subsidiaries, ensuring the credibility of audit, consideration of sustainability in the mid/long term, and improving the quality of outside directors.
- Besides, companies aiming to be listed on the Prime Market (provisional name), which consists of companies with larger market capitalization, higher liquidity, and more sophisticated governance committing to increase corporate value in the mid/long term through constructive dialogue with investors, should reach to the governance standard appropriate for the investment targets representing Japanese market by requiring a higher level of governance compared to the other markets through the revises of "Japan's Corporate Governance Code," . So, heading toward the implementation of the new equity market structure in April 2022, require a higher level of governance in "Japan's Corporate Governance Code" scheduled to be revised in FY2021.
- To substantiate the functions of independent directors, which are essential for the monitoring the board of directors, formulate "Practical Guidelines for Independent Directors", which demonstrates best practice of independent directors, such as the accurate understanding of their roles and expected roles in the board of directors by summer 2020, and work on dissemination of the guideline.
- Promote dissemination of "Japan's Stewardship Code" that was revised in March 2020, and during FY2020 announce the number of institutional investors, etc. who respond to the revised code. Additionally, support the promotion of stewardship activities by corporate pension funds.
- In addition to promoting the spread of Hybrid Virtual Shareholder Meetings, whose guidelines were released in February 2020, consider what shareholder meetings should be, such as further utilization of electronic means in the process of holding shareholder meetings including Virtual-Only Shareholder Meetings and policies for the improvement of disclosures, and reach to certain conclusions during FY2020.

vii) Improving the Quality of non-financial Information Disclosures and of Accounting / Audit, etc.

- Taking into account the improvement of narrative information, such as business strategy and risk information, in the Annual Securities Reports from FY ending in March 2020, collect good practices on the application for dialogue between companies and investors and publicate during FY 2020 by incorporating them into "Reference Casebook of Good Practices on the Disclosure of Narrative Information". In addition, publicate good practices on the disclosure of ESG including climate change by incorporating them into the Reference Casebook and promote practical use of them.
- Work on facilitating the transition of Japanese companies to the International Financial Reporting Standards (IFRS), including making more efforts to reflect Japanese approach in IFRS, and promote the expansion of the optional application of IFRS in Japan.
- Review the state of oligopoly of the audit market and the status of non-audit services from the perspective of ensuring the reliability of accounting audits. Besides, consider the promotion of making better use of IT at audit firms to improve the quality of audit during FY2020.

viii) Improvement of Environment for Positive Investment for economic growth and Supply of Risk Money

- To promote open innovation (including M&A) between existing companies and start-up companies, formulate practical guidelines of valuation, including evaluation of intangible assets, in acquisitions of start-up companies by existing companies in FY2020. Besides, promote growth investment in existing companies by making use of the evaluation methods in the guidelines for the evaluation of new businesses in the existing companies.
- DBJ will conduct joint investment with regional financial institutions, coordinate with pension funds, invest in private funds by making use of Specified Investment Activities, etc. and then contribute to the enhancement of corporate governance as a responsible investor. Besides, DBJ will also promote the construction of the ecosystem of the growth investment market by enhancing the supply of risk money and the development of human resources in the private investment sector.

ix) Developing Financial and Capital Markets that Attract Investors and Lead to Corporate Value Increase

- With regard to the reform of Tokyo Stock Exchange's equity market structure, begin the procedures for selecting market segments and start up new markets based on the new market sections in April 2022, after showing the higher level of governance for the companies who select the Prime Market (provisional name) in "Japan's Corporate Governance Code" which will be revised in 2021. And consider the promoting measures for entry of institutional investors in the Growth Market (provisional name) from a wide viewpoint.
- In parallel with this reform, delink the composition of Tokyo Stock Price Index (TOPIX), which is

now automatically comprised of all companies listed on the 1st Section, from Tokyo Stock Exchange's market structure and select comprising companies with more emphasis on governance level and market liquidity. The new index will be published and in use until the launch of new markets based on the new market sections in April 2022.

- Work on the development of the environment toward realizing a Comprehensive Exchange in July 2020 to improve investor's convenience, expand the derivatives trading market, and enhance international competitiveness.
- From the points of facilitating funds raising by companies and making securities trading more diverse and sophisticated, consider the improvement of crowdfunding systems and unlisted securities trading while paying great care to investor protection.
- Review the "Principles for Customer-Oriented Business Conduct" for its establishment and dissemination, and reach to the conclusion during FY2020. Besides, promote further improvement of business conduct by deepening dialogue with financial institutions on the results of their efforts and the problems they found while making use of good practices based on the Principles at companies selling investment trusts, etc.
- To promote stable asset formation of households, work on the establishment of long-term, installment-type diversified investment, and enhancement of financial literacy through the promotion of financial education by making use of ICT, the popularization of Tsumitate NISA, and the announcement of new NISA that will be introduced in 2024. Besides, to promote the popularization of private pensions such as iDeCo (individual-type Defined Contribution pension plan), simplify the enrollment procedures of iDeCo, such as by introducing online procedure.

x) Establishing an Global Financial City as an International Financial Hub in Asia and the World

- Work on the following measures; summarize the issues and facilitate dialogue with asset manager through drawing up a report on the progress of sophistication in asset management, sophisticate asset management by asset owner, take measures on cash flow of independent and new asset managers, prepare the ground for urgent acceptance of foreign asset managers, etc., enhance corporate governance and promote stewardship activity still more, review custom practices of industry for enhancing market efficiencies based on opinions of asset managers.
- Promote the acceptance of highly-skilled foreign professionals, such as human resources in asset management and in finance through the development of the living environment, and promote smooth acceptance of human resources, including support staff like those who work in the middle office and back office.
- Streamline the registration process of Investment Management Businesses by drastically bolstering the support desks for setting up business bases, disseminate and revise the guidebook for registration procedure, and provide new entrants with financial administrative services, including self-regulation

activities, not only in Japanese but also in English. Besides, drastically strengthen the publicity work of the government.

5. Mobility

(1) Major progress in achieving KPI

[KPI] Introduce automated transportation services that are controlled remotely, for abandoned railway tracks and other areas, by FY2022.

[KPI] Attain Level 4 in autonomous driving on highways by 2025.

[KPI] Expand regionally-limited, unmanned automated transportation services to more than 100 locations across Japan by 2030.

[KPI] Realize the widespread installation of safe driving support devices/systems as standard feature in all new vehicles sold domestically, to virtually all vehicles on a stock basis by 2030.

⇒ Installation rate for new vehicles sold domestically: 77.6% (2018)

Installation rate for domestic vehicles: 19.0% (2018)

[KPI] Bring about the realization of services, such as package delivery services by drones through “beyond visual line of sight” flights in populated areas, by FY2022.

[KPI] Launch the “flying car(eVTOL)” project by 2023.

(2) New specific measures to be taken

As the population decline picks up speed and the shortage of drivers becomes an increasingly severe problem, securing mobility and logistics in rural areas, and in particular, providing support for the elderly, are becoming pressing concerns. Furthermore, the spread of the novel coronavirus disease (COVID-19) is having widespread impact on regional transportation. There is a need to address structural changes in the movement of people and goods, brought about by the short-term fall in demand as well as the “new normal” for everyday life.

To cope efficiently with the individual transportation needs of local resident and traveler, it is necessary to fuse new transportation services (Mobility as a Services, or MaaS) that allow individuals to combine various means of transportation in an optimal manner through the use of AI or other technology, with new technologies such as autonomous driving, with a view to maintaining and revitalizing local public transportation. Particularly in areas with a declining population, it is possible to also resolve regional issues by combining transportation services with other services such as logistics, medical care and health, and shopping.

Furthermore, advance the social implementation of new technologies that can support such changes. Specifically, work on reforming various systems related to mobility, such as autonomous driving and small Unmanned System (drones) and on strengthening data linkages. At the same time, vigorously promote safety measures in relation to traffic accidents involving the elderly.

i) Utilization of technological innovation in the Society 5.0 era for measures against traffic accidents by elderly drivers

Countermeasures for traffic accidents by elderly drivers are a major social issue, and a prompt response is necessary when considering the increase in the number of elderly people in the future. On the other hand, transportation is limited in rural areas, so it is important to secure transportation means for the elderly and to balance road safety. Taking advantage of technological innovations in the Society 5.0 era, the following measures will be taken.

1. Promote the Spread of Vehicles Equipped with Advanced Emergency Braking System (AEBS) and Pedal Misapplication Prevention Device

- A safe driving support car ("Safety Support Car") subsidy³⁰ was started in March 2020 to support purchases by elderly people aged 65 and older of support cars outfitted with certified equipment, such as brakes to avoid or mitigate the severity of an impact with a pedestrian and devices to limit sudden forward movement or sudden acceleration due to an accelerator-pedal error. The subsidy supports the aim of introducing 1 million support cars by the end of FY2020.

2. Creation of a driver's license restricted to support cars

- In order to reduce traffic accidents caused by elderly drivers, a revision to the Road Traffic Act was enacted so that individuals aged 75 and older and who have a certain history of traffic violations will be subject to a mandatory driving skills test when renewing their driver's license, in addition to the usual cognitive test. The revision also makes it so that even elderly drivers³¹ not subject to the driving skills test will receive in-vehicle instruction³² and have their driving abilities evaluated.
- Furthermore, based on the same law, starting around 2022³³ there will be a system to grant, through application by the driver themselves, a conditional driver's license (driver's license limited to support cars), that is limited to safe driving support vehicles, etc.

ii) Establish a Paid Passenger Transportation System in personal-use automobiles in Cooperation with General Passenger Automobile Transportation Business Operators

- A revision to the Act on Revitalization and Rehabilitation of Local Public Transportation Systems was enacted, establishing a paid passenger transportation system in personal-use automobiles in

³⁰ Generic name for the "Subsidy for the Project to Advance the Spread of Safe Driving Support Cars" (Ministry of Economy, Trade and Industry) that targets private vehicles and for the "Subsidy for Traffic Accident Prevention Measures Related to the Project to Advance the Spread of Safety Support Cars" (Ministry of Land, Infrastructure, Transport and Tourism) that targets commercial vehicles..

³¹ Individuals between 70 and under-75 years of age and individuals aged 75 or older who do not have a certain history of traffic violations.

³² Together with the course instructor, evaluating actual driving situations and providing guidance by driving through a course based on certain tasks, such as passing through intersections with traffic lights and making a momentary stop before turning left or right at intersections.

³³ Date specified by a government ordinance, not more than 2 years from the date of promulgation (June 10, 2020).

which general passenger automobile transportation business operators³⁴ participate in the system and take on operational duties, including operations management by receiving a consignment, with operations beginning later this year.³⁵

iii) Social implementation of low-speed and compact automatic delivery robots

- Demand for home delivery has rapidly increased in conjunction with the spread of COVID-19, and, amidst increasing need for contactless delivery without human intervention, it is expected that new delivery services utilizing unmanned, low-speed, and compact automated delivery robots will be realized. For example, it is expected that such a service will be used for delivery to nearby consumers' homes from supermarkets, restaurants, and package delivery bases, and for periodic collection and transport of packages.
- While there are examples from overseas of delivery robots actually driving on public roads for deliveries, under the Japanese system (Road Transport Vehicle Act, Road Traffic Act), low-speed (driving on sidewalks at speeds of 6 km/h or less), compact, and unmanned delivery robots are not positioned under the system and have not been tested on public roads. However, a framework was finally established in April 2020 so that delivery robots, limited to "nearby monitoring / operation" types in which the monitor or operator follows and watches the robot from a close distance, can conduct demonstrations on public roads, including on sidewalks.
- In Japan as well, in addition to confirming social acceptance of delivery robots, demonstration drives on public roads by "remote monitoring / operation" type delivery robots will be realized as soon as possible within the year, and, based on the collected data, continuous services can be provided.
- Basic policy for designing a system will be decided at an early stage, based on the results, for the social implementation of low-speed and compact automatic delivery robots.

iv) Promotion of a Japanese version of MaaS

1. Maintenance and revitalization of mobility in the regions

- With regard to transportation businesses, which are essential services supporting the "new normal," the government will promote the securing of operations corresponding to the risk of infections, such as by promoting initiatives including cashless payments and provision of congestion information.
- Based on the regional public transportation plans drawn up by the local governments, support will be provided for initiatives such as service improvements, which include the operation of passenger buses at regular intervals and flat-rate fares for unlimited rides, the securing of substitute services for fixed-route buses that are difficult to maintain, and the introduction of services that consolidate freight and passengers. In addition, the smooth implementation of paid passenger transportatio

³⁴ Operators that, in response to demand from others, use automobiles to transport passengers for a fee, specifically referring to transportation business operators such as route buses, chartered buses, and taxis, etc.

³⁵ Date specified by a government ordinance, not more than six months from the date of promulgation (June 3, 2020).

system in personal-use automobiles in cooperation with general passenger automobile transportation business operators will be realized.

- To promote the maintenance and revitalization of public transportation, improved convenience for consumers, and creation of opportunities for increasing mobility for the elderly, the government will promote greater use of the new mobility service known as “Mobility as a Service” (MaaS). This combines multiple public transportation services with other means of transportation to cope with the individual transportation needs of local residents and travelers. It can be achieved through (a) A system that streamlines procedures for the submission of fares to the government for so-called “free passes,” which can be used across the board for multiple transportation services such as rail and buses, as well as sightseeing facilities; (b) Promoting the use of council systems that a wide range of stakeholders, such as multiple transportation businesses, participate in within each municipality.

2. Combining mobility and logistics services

- With regard to the approach to MaaS with a view to resolving local issues such as logistics and shopping, systems will be developed with a view to commercializing new mobility services at an early stage in areas with a declining population, through new ways of using mobility. Specifically, in relation to the revised Food Sanitation Act (enforced on June 1, 2021), one-stop electronic services will be established for procedures such as notification of mobile sales businesses that straddle different municipalities. At the same time, for food and beverage businesses that are conducted on mobile vehicles, the government will promote the standardization of facility standards for business licenses that are prescribed separately by each municipality. Furthermore, in consideration of the principle that private vehicles are used for paid passenger transportation system in personal-use automobiles, the government will provide greater clarity in FY2020 on the treatment of cases where motor truck transportation business operators, working on consignment from the responsible organization based on the needs of the local community, bring their own freight transportation vehicles to transport passengers alongside with freight cargo.
- In FY2020, validation work of MaaS will be carried out in collaboration with the tourism, retail, medical, and other sectors. Based on the results of this work, the issues and best practices will be sorted and disseminated through the Council for Promoting the Smart Mobility Challenge Project, which has been established through public-private partnership.
- The government will validate the effectiveness of special measure that allows permitted taxi operators to transport food, etc. at a charge, and the results will be used to determine if the transport should be continued.

3. Fresh urban development and mobility

- The government will compile a roadmap for the growth of the automotive industry as a mobility industry in FY2020, based on the structural change of stronger linkages with various community

infrastructure brought about by the evolution of services and technologies such as CASE³⁶ and MaaS.

- With regard to bicycle sharing, the government will present a business model in FY2020 aimed at enhancing business efficiency and user convenience, such as the development of a one-stop service for registration for use.

4. Acceleration of data linkage

- The “Guidelines for MaaS-related Data linkage,” formulated in March 2020, will be disseminated to business operators, local governments, and other organizations through courses and other means. At the same time, the government will promote the regional validation of app and data linkage, as well as API standardization, based on the guidelines. To advance linkage with fields other than transportation, the government will conduct reviews in FY2020 with regard to updating the Guidelines.

v) Acceleration of initiatives toward the social implementation of autonomous driving

1. Spreading and promoting autonomous driving

- Driverless automated driving transport services in specified areas on public roads will be introduced in multiple locations in 2020, and coverage will be increased to more than 100 locations across Japan by 2030.
- With the aim of launching automated driving transport services that are monitored remotely in abandoned railway tracks and other areas in FY2022, technological development will be carried out and reviews conducted to develop the necessary environment.
- To accelerate the social implementation of these services, the government will establish a business model that clarifies the systems and procedures for the implementation of businesses corresponding to the operating style of Driverless automated driving transport services ((a) Boarding and monitoring by in-vehicle security driver; (b) Monitoring by remote driver).
- With regard to private vehicles, the government will advance cooperation with the private sector, with the aim of achieving Level 4 automated driving on highways by 2025.
- For trucks traveling in platoons, the government aims to start the commercialization of manned platooning systems for following vehicles from FY2021. At the same time, successor models with more advanced fleet maintenance functions will be developed, with the aim of achieving commercialization from 2023. In addition, the government will put in place measures with the aim of achieving Level 4 for self-driving trucks on highways from FY2025, and reviews will be conducted on the operation and management systems of high-performance trucks.
- With regard to ground support work at airports, alongside with the expansion of airports where Level

³⁶ CASE is the acronym for “Connected” (connecting vehicles), “Automated” (autonomous driving), “Shared & Service” (sharing services), and “Electrified” (electrification).

3 autonomous driving is to be introduced in 2020, infrastructure and operational rules will be established after validation work has been carried out toward the introduction of Level 4, and Level 4 unmanned autonomous driving will be introduced within restricted zones by 2025.

- In FY2020, the government will establish an experts' network that offers consultation services and advice to local governments and business operators, etc., and set up a nationwide forum to share knowledge on demonstration experiments conducted in Japan and abroad, with a view to realizing regional mobility integrated with unmanned automated transportation services. On top of that, the government will promote the establishment of demonstration experiments by utilizing the patterned reference model for setting the driving environment conditions, with a view to introducing autonomous driving for regional mobility services ("2020 Model"), cooperation with local residents corresponding to the type of driving environment, links with infrastructure, and the design of the optimal operating pattern.

2. Development of base maps

- With regard to the three-dimensional data that also serves as a foundation for autonomous driving, effort will be made to advance data acquisition on general roads and develop high-precision, three-dimensional maps for approximately 23,000km of arterial roads in FY2021. At the same time, the government will promote international standardization originating from Japan.
- By FY2021, the government aims to implement a system that makes real-time corrections to discrepancies in positions between maps and the real space caused by crustal movements³⁷, as this will make it possible to accurately capture the location of a self-driving car on the map. In doing so, validation work will be carried out to establish the methods for utilizing GNSS stations, etc. in the private sector, so as to enhance the precision of correction in areas where less public GNSS stations are available.

3. Formulation of international regulations/Safety evaluation

- Alongside with measures to promote the development of automated driving technology for buses and other vehicles, as well as the development of connected vehicles that can be utilized to provide information to drivers during disasters and to collect information on disaster damage, the government will take the lead in formulating international regulations for automated driving at the United Nations' World Forum for Harmonization of Vehicle Regulations (WP29), based on Japan's technological prowess.
- With regard to the safety evaluation for self-driving vehicles, the government will commence work on the establishment of evaluation methods and systems from FY2020. This will allow automotive manufacturers and service providers to select the simulation methods and test courses corresponding to hypothetical scenarios³⁷, and enable the implementation of appropriate driving tests. The aim is to

³⁷ For example, hypothetical cases of dangerous driving such as collision or sudden cutting in of a vehicle.

reflect these in international rules by FY2023.

4. Human resource development

- To nurture human resources who can take on both the jobs of automotive engineering and software engineering, university courses in the field of autonomous driving will be introduced in FY2020, with the aim of establishing full courses from next fiscal year based on verification of the needs and issues. Furthermore, in order to secure global human resources, support will be provided for initiatives such as exhibiting at job fairs in ASEAN and other regions, and the establishment of endowed courses at universities overseas.

vi) Promotion of various forms of ground, sea, and air mobility, and logistics reform

1. Establishment of a next-generation mobility system in the air

- In order to overcome various challenges faced by Japan, such as declining birthrate and ageing society, rural depopulation, and labor shortage, the government aims to realize “beyond visual line of sight” flights (Level 4) by drones in populated areas by FY2022, so as to enable the effective use of drones for a wide range of applications, including logistics, agriculture, forestry and fishery industries, maintenance and management of infrastructure, and disaster response. To that end, based on the basic policy for system design formulated in March 2020, the necessary institutional environment will be developed by FY2021 with a focus on the following three points. In doing so, attention will be given to the streamlining of procedures, such as the move to online applications and the omission of individual inspection for each flight, including flight manuals. At the same time, systems will be established by FY2022 in areas such as aircraft certification and the management of information pertaining to pilot licenses, so as to support the attainment of Level 4.

(Establishment of aircraft certification system)

- Currently, the government inspects the performance of the aircraft for each flight application. However, for “beyond visual line of sight” flights in populated areas, there is a need for a high level of safety measures in order to prevent personal injury or fatality due to accidental aircraft breakdowns. In light of this, the government, etc. will introduce in advance systems for inspecting and certifying the performance of an aircraft (aircraft certification system), similar to the systems used for cars and airplanes.

(Establishment of a pilot license system)

- Currently, the government verifies the skills of the pilot for each flight application. Going forward, the government, etc. will introduce in advance systems for reviewing and certifying the skills of the pilot (pilot license system), similar to the systems used for cars and airplanes.

(Establishment of rules for operation control)

- With regard to Level 4 flights, it will be mandatory to acquire the aforementioned aircraft certification and pilot license, based on the need to establish a stringent flight management system. In addition,

with regard to safety measures such as flight management, a system will be introduced in which the government inspects each flight and verifies that its operation is appropriate in light of the actual flight operating environment.³⁸

- In addition to the establishment of the aforementioned system, with regard to flight management systems for drones, flight management conditions corresponding to the flight area and methods will be clarified alongside with the advancement of technological development and validation, while details such as the scope for the introduction of the system as well as the operating system will be coordinated, with a view to achieving this by FY2021.
- Alongside with advancing technological development for safe and secure drones, efforts will be made to promote their utilization by governments and private companies, with a view to achieving these by FY2021.
- Drone demonstrations and an examination of precedent cases will be carried out, and the issues and solutions for each purpose and form of use will be compiled as a set of guidelines in FY2020. In particular, with regard to drone logistics in depopulated areas, the government will implement support for the practical application of drones based on the characteristics of the region and make adjustments to realize a sustainable business structure. Furthermore, pertaining to the verification of sites in the depths of mountains and forests, the government will disseminate information on advanced cases and conduct field tests, such as surveying, from FY2020, with a view to streamlining the work of obtaining information on forest conditions.
- To achieve safe and reliable “beyond visual line of sight” flights in locations with inadequate communications infrastructure, the government aims to develop, by FY2021, multiple connection technology and frequency sharing technology in order to control drones from airplanes, etc. flying at high altitude.
- The government aims to launch the “flying car(eVTOL)” project from 2023. To that end, in FY2020, it will begin to conduct reviews on the development of systems in areas such as safety standards for aircraft and flight operation, as well as competence certification standards for pilots, based on the roadmap for the realization of the project. Based on this progress, the roadmap will be revised in FY2021. At the same time, the government will also advance efforts to develop automated/autonomous flight technology and flight management technology for multiple aircraft, in order to use “flying cars(eVTOL)” as a means of transportation at the Expo 2025 Osaka, Kansai.
- Based on revisions to the Fukushima Innovation Coast Framework made in May 2020, the government will support development toward new applications, carried out along Hamadori in Fukushima. At the same time, it will also establish it as a base for promoting initiatives related to the Fukushima Robot Test Field, including the establishment of an environment for development, demonstration, and test flights for drones and “flying cars(eVTOL),” and the development of

³⁸ Penal provisions are in place to punish violations of the matters to be observed.

technical standards and operating guidelines.

2. Promotion of various forms of ground mobility, and logistics reform

- The government will conduct reviews into the approach to road spaces that meet diverse needs, such as supporting new forms of mobility like single-seater electric vehicles, and compile in FY2020 new standards for road structures and direction for systems.
- With a view to the standardization of logistics within and across industries, the government will promote initiatives for the action plan to standardize logistics in the processed food sector as well as the expansion of the action plan to other industries. Furthermore, with the aim of building a logistics and distribution database across the whole of the supply chain, the government will promote the establishment of a business model toward social implementation in FY2020, and at the same time, promote the introduction of logistics facilities and equipment that help to reduce manpower through the use of IoT and AI.
- Based on the government's Action Plan for the Realization of Work Style Reform in the Road Transportation Business, the government will ensure the penetration of quintessential fares across the market, and based on the revised Motor Truck Transportation Business Act, it will promote the streamlining of logistics and rationalization of the trading environment, such as the promotion of the "White Logistics Movement,"
- In cooperation with private sector businesses, such as commercial vehicle manufacturers and logistics companies, the government will collect truck data from multiple commercial vehicle manufacturers and commence demonstrations on operational management from FY2020 and achieve standardization of vehicle data formats and API based on the results of these demonstrations, with the aim of realizing joint transportation, mixed cargo deliveries, and optimization of transportation and delivery routes.

3. Transformation of industrial structure corresponding to the digital age of the seas

- With a view toward creating an environment in which the shipping industry and shipbuilding industry can grow together, the government will compile the necessary measures for promoting investment and collaboration between companies, including institutional reforms, in FY2020, and implement these measures swiftly.
- To ensure stable coastal shipping, the government will compile a basic policy in 2020 on increasing productivity through the application of new technologies and other means, improving the business environment, and reforming the work styles of ship crews. It will also swiftly implement institutional reforms and other measures.
- To bring about the practical application of autonomous ships by 2025, the government will advance the digitalization of ships, and at the same time, aim to formulate guidelines on equipping ships with autonomous operation functions ahead of the world by mid-FY2020, as well as review the relevant

laws and regulations.

- With regard to ferries and roll-on/roll-off (RORO) transportation networks, which contribute to resolving the problem of driver shortage, the government will conduct field surveys from FY2020 towards enhancing the transportation efficiency through information and communication technology and automation technology.
- As for the three major bays and the main coastal routes connecting these bays, in order to prevent dragging anchor³⁹ accidents when a typhoon hits, and to enhance the efficiency of maritime transportation, the government will compile policies in FY2020 on providing real-time information related to the vessel traffic conditions and the recovery conditions of harbor. Then it aims to establish the relevant systems by FY2022.
- With regard to next-generation mobility for the sea such as autonomous surface vehicles (ASV), autonomous underwater vehicles (AUV) that are expected to serve as the so-called “drones of the sea,” and remotely operated underwater vehicles (ROV), the government will establish a council through industry-academia-government cooperation, with the aim of compiling the basic direction for initiatives to promote utilization by mid-FY2020.

vii) Realization of safe and secure road traffic in light of recent traffic accidents

- To prevent accidents caused by speeding, the government will promote the development of new, cutting-edge safety technologies by automotive manufacturers based on the Guidelines on the Technical Requirements for Intelligent Speed Assistance (ISA) formulated in December 2019, which summarizes the matters that should be noted in the design process. Furthermore, it will advance safety measures on highways while taking advantage of the current low interest rate environment. An example of such a safety measure is to convert temporary two-lane roads, which can easily cause serious accidents such as frontal collisions, into four-lane roads. As for measures against reverse driving, the government will promote the development of vehicle-highway cooperative technologies that utilize image recognition and other technologies.
- The government will secure the safety of routes that children commute through every day, with a focus on preschoolers.
 - Based on the results of emergency inspections conducted, the government will strengthen efforts to develop traffic safety facilities, including area-wide measures such as improvements to Zone 30. At the same time, the government will develop safe and secure pedestrian spaces, such as by segregating spaces used by pedestrians, automobiles, and bicycles, expanding pedestrian sidewalks, and installing protective fences. In addition, the government will promote effective speed control measures in community road areas through the use of data such as ETC 2.0, as well as the differentiation of functions between community roads and arterial roads through measures

³⁹ Refers to a situation where the anchor slips onto the seabed when the external force acting on a ship, such as wind, is larger than the force of the anchor holding the ship stationary in place.

to improve intersections, etc. on arterial roads.

- To secure safe and smooth traffic on railway crossings, the government, in cooperation with the relevant entities such as road and railway operators, will conduct reviews into the diversification of railway crossing measures, operating method during disasters, and systems for providing information on the closure of railway crossings to road users, with a view to submitting a reform bill for the Act on Promotion of Railway Crossings to the ordinary Diet session in 2021.
- With the aim of securing safe and comfortable traffic spaces, the government will utilize low-cost, single underground cable format in addition to the conventional common cable duct format based on the plan to promote the removal of utility poles, with the aim of promoting the removal of approximately 1,400 km of utility poles by FY2020. At the same time, restrictions will also be imposed on the exclusive use of existing utility poles.

6. Initiatives in Individual Fields

(1) Major progress in achieving KPI

[KPI] Aim to achieve 50-70% next-generation vehicles out of all new passenger vehicles sold by 2030.

⇒ The percentage of next-generation vehicles out of all new vehicles sold is 38.4% (FY2017).

[KPI] Establish commercial hydrogen stations in about 160 locations by FY2020, and about 320 locations by FY2025.

⇒ Commercial hydrogen stations have been opened in 130 locations (end of May 2020)

[KPI] By FY2025, create 50 unlisted venture companies (“unicorns”) or listed venture companies with enterprise value or aggregate market value or US\$1 billion or above <Reposted>

⇒16 companies (end of FY2019)

[KPI] Double the scale of Japan’s space industry (approximately 1.2 trillion yen), including the space utilization industry, by the early part of the 2030s.

[KPI] By 2030, Japan ranks first among the G20 for the World Bank’s ranking of business environment.

⇒Japan ranked eighth among the G20 at the time of the announcement of the ranking in October 2019 (one position higher than in the previous year)

[KPI] Aim to improve productivity at construction sites by 20% by FY2025.

[KPI] Increase PPP/PFI project scale to 21 trillion yen in 10 years (FY2013 – FY2022). Of this, set a target of 7 trillion yen for PFI projects that utilize the operating rights system for public facilities.

⇒ Project scale from FY2013 - FY2018

- PPP/PFI projects: Approximately 19.1 trillion yen

- PFI projects that utilize the public facilities concession system: Approximately 8.8 trillion yen

[KPI] Increase the number of local governments, etc. that have utilized PFS methods in the three priority areas to 100 or more by the end of FY2022.

[KPI] In the agricultural sector, almost all the business farmers utilizing data in their workflow by 2025.

*Progress will be ascertained based on the Census of Agriculture and Forestry, etc., with expanded survey items.

[KPI] Use 80% of total agricultural land area by business farmers over the next 10 years (up to

2023) (end of FY2013: 48.7%).

⇒ End of FY2019: 57.1%

[KPI] Aim to increase the value of exports for agricultural, forestry and fishery products as well as food products to 2 trillion yen by 2025, and 5 trillion yen by 2030. (2012: 449.7 billion yen)

⇒ 2019: 912.1 billion yen

[KPI] Double the added value of the forestry and wood industries originating from privately-owned planted forests from the 2015 value by 2028 (2015: 250 billion yen).

⇒ 2018: 320 billion yen

[KPI] Aim to extend the healthy life expectancy of both men and women by 3 years or more to 75 years or longer by 2040.

⇒ As of 2016: Men 72.14 years, women 74.79 years

[KPI] Aim to improve the service provision per unit time for the medical and welfare sectors by 5% or more (7% for doctors) by 2040.

[KPI] Aim to increase the number of foreign visitors to Japan to 40 million by 2020 and 60 million by 2030.

⇒ As of 2019: 318.8 million (2012: 83.6 million)

[KPI] Aim to increase the value of travel consumption by foreign visitors to Japan to 8 trillion yen by 2020, and 15 trillion yen by 2030.

⇒ As of 2019: 4,813.5 billion yen (As of 2012: 1,084.6 billion yen)

[KPI] Aim to expand the scale of the sports market to 10 trillion yen by 2020, and 15 trillion yen by 2025.⁴⁰

⇒ As of 2017: 8.4 trillion yen (Provisional estimated value for contribution of sports to GDP)

[KPI] With regard to stadiums and arenas across Japan, establish 20 hubs from 2017 to 2025 as centers of exchange where a wide range of generations can gather.

⇒ There are more than 80 stadiums and arenas across Japan at the conceptualization and planning stage. There are plans to start the selection of the target facilities from FY2020.

[KPI] Aim to expand contribution of culture to GDP to 18 trillion yen (approximately 3% of GDP)

⁴⁰ A method for estimating the scale of the sports market in a continuous way that facilitates international comparison is an evaluation based on sports GDP, developed by DBJ and other organizations. At the same time, reviews are ongoing to further refine estimation methods.

by 2025.

⇒ As of 2016: 8.9 trillion yen (As of 2015: 8.8 trillion yen)

[KPI] Aim to promptly conclude RCEP negotiations, upon which, the FTA ratio will exceed 70%.

⇒As of the end of FY2019: 52.4%⁴¹⁴²

[KPI] Increase the number of broadcasting contents sold overseas to 5,000 works by FY2025.⁴³

⇒As of the end of FY2018: 3,703 works

[KPI] Aim to certify 40,000 highly skilled foreign professionals by the end of 2022.

⇒ From the introduction of the point system (May 2012) till December 2019, 21,347 foreign nationals were certified as highly skilled foreign professionals.

(2) New specific measures to be taken

i) Energy and environment

With regard to resuming socio-economic activities from the novel coronavirus infectious disease, rather than returning to the previous economic society, it is important to strongly promote the following elements in the area of energy and environment, from the perspective of striking a balance between coping with the coronavirus crisis and addressing the climate crisis: (a) Transition to a decarbonized society; (b) Achievement of the Sustainable Development Goals (SDGs); (c) Expansion of environment, social, and governance (ESG) investment. It is also important to transform the “post-corona” economic and social structure to one that is more sustainable and resilient.

With abnormal weather conditions, believed to be partly attributable to climate change, occurring throughout the world, the international community shares a need to strengthen climate change measures, while Japan has begun introducing policies from the perspective of “climate change x disaster prevention.” In addition, corporations around the world are beginning to position the Sustainable Development Goals (SDGs) and ESG at the core of their business management. Against this backdrop, and based on The Long-term Strategy under the Paris Agreement (Cabinet decision, June 11, 2019), the government will strengthen efforts within and out of Japan, with a view to accelerating the virtuous cycle of environment and growth through business-led disruptive innovation in the “post-corona” society, creating employment in the environmental business sector, and making the transition to a decarbonized society, circular economy, and decentralized society.⁴⁴

⁴¹ The ratio of the amount of trade with countries with which EPAs & FTAs are in effect and signed as of the end of FY 2019 in proportion to Japan's total amount of trade (based on the amount of trade in 2019)

⁴² The FTA ratio reaches 79.0% (based on the amount of trade in 2019) when the current RCEP under negotiation is signed.

⁴³ New KPI established this time. The Ministry of Internal Affairs and Communications Overseas Expansion Action Plan 2020, announced on May 1, sets out the aim of increasing the number of broadcasting contents sold overseas (4,500 works by FY2022).

⁴⁴ Initiatives in the energy and environment sectors to promote the transition to a decentralized society include initiatives that

1. Establishing a robust and sustainable electricity supply system

- With regards to the electrical power network, through enacting revisions to the Electricity Business Act⁴⁵, the Organization for Cross-regional Coordination of Transmission Operators has formulated a master plan for nationwide power grid development, and, in conjunction with making improvements based on future power source potential, will work to make the electrical power network more robust by allowing a portion of power grid development costs to be added to electric bills. Alongside with that, under the Electricity Business Act, based on the condition that the Minister of Economy, Trade and Industry approves "revenue caps" and that they are within those limits, power transmission and distribution businesses are encouraged to strengthen transmission and distribution grids, to steadily carry out necessary transmission and distribution investments such as planned renewal of steel towers, and to increase cost efficiency by establishing a system that allows flexible changes in transmission charges.
- As for power sources, businesses that bundle distributed power sources and provide them as supply capacity (aggregators) will take advantage of their legal position to promote energy systems with true local production and local consumption of energy through further spread and expansion of distributed power sources.
- Additionally, with regards to renewable energy, which is the largest pillar in domestic energy production for fulfilling international responsibilities for decarbonization, a system in which certain premiums are added and issued to the market price (Feed in Premium (FIP) system) was established in addition to the fixed price purchase system (FIT system) through enacting revisions to the Act on Special Measures⁴⁶ Concerning Promotion of Renewable Energy Electricity. Operation of both systems will promote maximizing the introduction of renewable energy while limiting the burden on citizens.
- Additionally, for nuclear power, the restarting of nuclear power plants will be promoted while gaining the understanding and cooperation of the relevant individuals and local governments, etc., and if the Nuclear Regulation Authority finds that the nuclear power plant in question meets the strictest regulatory standards in the world. Furthermore, the government will start to strengthen human resources, technology, and the industrial base, and will promote research and development for the future, such as pursuing reactors with excellent safety, etc.
- In doing so, the government will advance international cooperation, human resource development, and technological development aimed at resolving backend issues including the

promote the sustainable use of local resources, such as the introduction of renewable energy in the region and promoting coexistence of nature and human beings.

⁴⁵ The master plan for the development of power grid by wide-area power organizations will be enforced from the date stipulated by government ordinance, not exceeding one year and six months from June 12, 2020. Power distribution business/aggregator, etc. will be enforced from April 1, 2022, and revenue cap will be enforced on the date stipulated by government ordinance, not exceeding 3 years and six months from June 12, 2020.

⁴⁶ Effective April 1, 2022

decommissioning of reactors. At the same time, it will also approach initiatives based on a consideration of initiatives by other countries, including the utilization of research and test reactors such as experimental breeder reactors and high-temperature gas-cooled reactors, the development of nuclear fusion technology, and further, the development of innovative nuclear reactors such as small modular reactors.

- Furthermore, the government will strive to restore social trust through efforts to enhance disaster prevention measures and improve voluntary safety control.
- The government aims to establish a capacity market by mid-FY2020, and a supply and demand regulated market by mid-FY2021.
- Alongside with the aim to designate base ports, which are indispensable for offshore wind power generation, within FY2020, the government will also formulate safety guidelines by FY2021.

2. Responding to energy issues and the state of future energy strategy

- Japan's energy issues include (a) responding to stagnating electric power investment and deteriorating facilities, (b) responding to global climate change problems, and (c) responding to changes in the situation regarding nuclear power generation.
- With regards to the major directions of future energy strategies, including long-term and global energy issues (natural disaster risk, geopolitical risk, burden to citizens, outlook for technological development⁴⁷, and the status of energy investment, etc.) and recent energy-related issues facing Japan (handling of energy sources such as fossil fuels and renewable energy, maintenance of networks and distributed systems, fuel procurement, and improvements to the investment environment, etc.), a new forum for discussions will be established at the Council on Investments for the Future and bold visions from a broad perspective will be considered while taking into account the balance between climate change, stable energy supply, and cost.
- Based on the Environment Innovation Strategy (decided by the Council for Integrated Innovation Strategy on January 21, 2020), the government aims to establish, by 2050, innovative technology that makes it possible to realize a carbon-neutral world, and further, to reduce CO₂ emissions based on past carbon stock (“beyond zero”), and to develop low-cost next-generation batteries, energy control systems through digital technology, hydrogen reduction steelmaking technology, plastic production technology using artificial photosynthesis, concrete and bio jet fuel/synthetic fuel with CO₂ as the raw material, technology for the absorption/fixation of CO₂ by agricultural land, forests, and oceans, and products utilizing highly functional materials such as cellulose nanofiber. The government will also promote international collaborative research through the Global Zero Emission Research Center of the National Institute of Advanced Industrial Science and Technology (AIST) and the Green Innovation Summit, strengthen international cooperation,

⁴⁷ Renewable energy, hydrogen, CCUS and carbon recycling (separation and utilization of CO₂), nuclear power, AI utilization, etc.

and advance the materialization of large-scale demonstration projects for low-carbon technology at Tokyo Bay.

- The government will advance initiatives to strengthen the competitiveness of the renewable energy industry. These include the development of innovative technologies such as flexible, lightweight and high-efficiency solar power generation, supercritical geothermal power generation, and floating offshore wind power generation, the advancement of offshore wind power components, and demonstrations on the optimization of the use of forests for energy applications.
- Towards the realization of a hydrogen society, the government will advance efforts to build a diverse model for social implementation in the future. These include, for example, technological development and international cooperation aimed at creating demand and reducing costs, such as the realization of one-tenth of the production cost of CO₂-free hydrogen, the establishment of an international supply-chain, and the utilization of hydrogen derived from renewable energy by local communities and actualization of environmental value.
- To achieve the realization of a decarbonized society through integrated domestic and external efforts, the government will work on phasing out inefficient coal-fired thermal power, and provide support for the export of coal-fired thermal power based on new policies established under the outline of the new strategy for infrastructure export (decision by the Management Council for Infrastructure Export Strategy on July 9, 2020). At the same time, with regard to CCUS and carbon recycling, the government will establish a demonstration and research facility on Osakikamijima in Hiroshima Prefecture by FY2022, and advance demonstrations on the CCUS process, as well as demonstrations on capture and utilization from emissions gases generated through biomass/waste matter, at Tomakomai in Hokkaido.
- Based on the New International Resource Strategy, the government will strengthen initiatives related to resource diplomacy, the securing of interests, and global warming measures, as well as promote the development of domestic resources such as methane hydrate, submarine hydrothermal polymetallic ore, and rare-earth mud.

3. Promoting green finance

- In FY2020, the government will conduct reviews on the issues and response measures, etc. related to the dissemination and spread of ESG regional finance, formulate a strategy/vision in relation to that, and revise the ESG Regional Finance Practical Guide.
- The government will add industries, increase the number of case studies, and carry out other work on the Task Force on Climate-related Financial Disclosures (TCFD) Guidance, and publish it by summer 2020. It will also move forward on popularizing the Green Investment Guidance, as well as on enhancing the scenario analysis guide and utilizing the environmental information disclosure platform during FY2020 and disseminate it to the world at the next TCFD Summit.

- The government will build a framework, by autumn 2020, to encourage companies that are achieving significant CO2 emissions reduction, and which are engaged in innovation, to supply private funds (Zero Emissions Challenge).
- The government will review the approach to finance for high-emission industries to move toward low-carbon and decarbonization, and reach a conclusion as well as create an environment in FY2020.

4. Business-led international roll-out and international cooperation

- With the aim of establishing and launching projects that integrate decarbonization technology and the development of the relevant systems under the public-private initiative, Cleaner Energy Future Initiative for ASEAN (CEFIA), led by Japan, the necessary data and test facilities, etc. will be provide to the government of the partner country.
- Through the utilization of the bilateral credit system based on the Paris Agreement (JCM), support for the establishment of systems in the partner country, and other initiatives, the government will promote the international expansion of environmental infrastructure in areas such as decarbonization, waste disposal, recycling, and domestic wastewater treatment.
- Toward the realization of the Osaka Blue Ocean Vision, in addition to international roll-out through means such as the utilization of global data aggregation that Japan is pushing forward with a view to 2023, the government will also develop policies for reducing marine plastic litter by local governments as well as models for local businesses.
- By promoting the development and practical application of low-carbon and decarbonization technologies for marine vessels, as well as the establishment of an international system to promote the replacement of vessels with new vessels by 2023, the government will bring about the realization of the commercial operation of vessels that emit zero greenhouse gases by 2028.
- With regard to reducing CO2 emissions in the international aviation sector under the International Civil Aviation Organization (ICAO), Japan will take the initiative and lead all countries to review long-term goals that can strike a balance with sustainable development by 2022.

5. Initiatives in the industry and transportation sectors

- The government will promote the formulation of targets and implementation plans with the aim of realizing, within FY2020, the participation of 100 companies in the Science Based Targets initiative (SBTi) that is aligned with the Paris Agreement.
- The government will conduct demonstrations on the fusion of mobility and energy infrastructure through the utilization of electricity storage and supply functions of electric vehicles, and other means, and promote the development of infrastructure and its smooth utilization during a disaster.
- With a view to the popularization of next-generation automobiles and the achievement of targets by 2030, the government will engage in the development of alternative technologies and

technologies to reduce the amount of rare metals used. This contributes to overcoming resource constraints related to the production of rare-earth magnets, which are indispensable for the electrification of automobiles.

- In order to achieve low-carbonization for port logistics and waterfront industries, alongside with the utilization of onshore power supply facilities for ships, the government also aims to establish, by FY2023, methods for measuring the reserves of carbon accumulated by marine ecosystems such as seaweed beds and shoals (blue carbon), and to reflect these in the United Nations Framework Convention on Climate Change and other conventions.

6. Initiatives for community, living, the Fukushima Plan for a New Energy Society, Climate Change and Disaster Risk Reduction, etc.

- Alongside with the materialization of a regional circular and ecological sphere (CES), as well as the realization, by summer, of a population of 65 million under local governments that have declared zero CO₂ emissions by 2050 (Zero Carbon Cities), the government will advance initiatives that include environmental improvement, such as the visualization of areas that are optimized for the introduction of renewable energy in the regions and the facilitation of consensus-building, the promotion of the utilization of renewable energy by corporations and public organizations, the enhancement of measures based on implementation plans by local public organizations, and the social implementation of the “nudge” policy.
- The government will conduct reviews aimed at compiling the final concrete plan for the materialization of the Resource Circulation Policy for Plastics within FY2020, and provide support for the social implementation of innovative technology such as next-generation recycling as well as the creation of circulation businesses that utilize digital technology. The government aims to formulate guidance to promote financing for a circular economy within the year.
- The government will provide support for power interchanging between buildings through DC power supply, and promote the popularization of ZEH/ZEB⁴⁸, the insulation retrofitting of existing houses and buildings, the replacement of high-efficiency equipment, and the introduction of storage batteries.
- The government will consider the digitization of procedures for the J-Credit Scheme and the creation of a market that utilizes blockchain and other technologies, with the aim of launching operation from FY2022 at the earliest.
- The government will promote the renovation and optimization of sewage treatment. This includes the wide-area management of sewage treatment plants through the use of ICT and AI, the standardization of the sewerage ledger system by FY2022, the conversion of single septic tanks in response to changes in the law, and the development of a septic tank ledger system.
- Field validation will be carried out for initiatives to promote renewable energy, such as the felling

⁴⁸ ZEH refers to Net Zero Energy House, while ZEB refers to Net Zero Energy Building.

of trees in river channels and using them as fuel for biomass power generation, and a conclusion produced in mid-FY2023.

- Taking the opportunity of the 15th meeting of the Conference of the Parties (COP 15) to the Convention on Biological Diversity (CBD), the government will promote the SATOYAMA Initiative, which aims to conserve land, mountains, and seas from a landscape approach. Effort will then be made to formulate the National Biodiversity Strategy, based on this Initiative, in many developing countries by the mid-2020s.
- To achieve Fukushima Prefecture's goal of producing renewable energy at a level that is 100% of energy demand within the prefecture by 204, the government will accelerate initiatives toward the realization of a future society based on renewable energy as well as the creation of renewable energy industries and research and development centers. Furthermore, the government will promote the development of models for a hydrogen society, and the development of decarbonized, future-oriented urban areas.
- From the perspective of climate change and disaster risk reduction, the government will promote disaster risk reduction and mitigation utilizing the natural ecosystem, such as wetlands with retarding effect, the maintenance and utilization of climate change risk information related to disasters, etc., heat stroke measures, and the strengthening of resilience during disasters through the effective utilization of energy generated by waste disposal facilities.

ii) Oceans and space

1. Oceans

1. Oceans

- The security situation surrounding Japan's territorial sea and the surrounding seas, including Japan's exclusive economic zone, has become even harsher, and Japan's maritime interests are exposed to more serious threats and risks than ever before. Additionally, issues such as climate change and marine litter containing microplastics have become apparent in recent years despite rising expectations for the development of marine resources and development of marine energy, and there is growing interest in conserving marine environments, both domestically and abroad.
- Against this backdrop, Japan will strengthen its ability of Maritime Domain Awareness (strengthening abilities to collect marine information and strengthening systems for aggregating and sharing this information) from the perspectives of economic security and the growth of marine-related industries. Specifically, efforts related to Arctic research vessel will be promoted, in addition to the utilization of oceanic data such as sea temperature, ocean currents, and ship traffic, and the sharing of such information with the public and private sectors, so as to optimize maritime route settings and improve accuracy when searching for fishing areas. Development of marine resources will be promoted through these efforts.
- With regard to deepening marine industry cooperation with other countries, efforts will be made to

strategically promote cooperation related to the development and operation at major ports from the viewpoint of strengthening relationships with countries along the sea lines of communication. In addition, initiatives will be further promoted to strengthen the international competitiveness of Japan's international shipping and shipbuilding industries, with the aim of securing stable international maritime transportation.

- To contribute to maritime security and the revitalization of the ocean industries, the government will work to build capacity on the collection of the aforementioned marine information and to strengthen aggregation and sharing systems, as well as promote international collaboration and cooperation and enhance the capacity for MDA.
- With regard to oceanic data, in addition to enhancing the user-friendliness of the MDA Situational Indication Linkages (MSIL) system, the government will advance the following initiatives integrally so as to create an environment to facilitate the steady progress of cooperation on oceanic data by FY2022, with a view to promoting the sharing and utilization of data between ocean stakeholders (national and local governments, and private-sector entities (business operators) in sectors such as maritime transportation, fishery, and resource development).
 - Incorporate, into the MSIL system and during FY2020, functions for accepting data requests from oceanic data users such as private-sector businesses in the maritime transportation, fishery, and resource development sectors, and enhance real-time information such as seawater temperature and ocean currents.
 - Formulate rules related to API collaboration on oceanic data and the standardization of data and encourage the relevant stakeholders to utilize the data.
 - In addition to the above, launch initiatives such as the building of networks with private-sector organizations and local governments with oceanic data and needs, the convention of forums that involve the participation of stakeholders from both the public and private sectors, promotion of the registration of data on the MSIL system, and the publication of MSIL's API.
- **In addition to the steady promotion of the aforementioned initiatives related to Arctic research vessel, the government will also engage in the Arctic Challenge for Sustainability II (ArCS II) project and international cooperation, among other initiatives.**

2. Space

Based on the Basic Plan on Space Policy that was decided by the Cabinet in June 2020, space development and utilization will be expanded through the following measures.

a) Contribute to the International Space Exploration Program (Artemis Program) proposed by the United States

- The United States has proposed international space exploration aiming for continuous lunar surface exploration through sending astronauts to the surface of moon again, and in October 2019 Japan also decided to participate. Japan will contribute with technology for crewed stays in space, such as the

environmental controls and life support technology, and with logistics cargo, -that are one of Japan's strengths. At the same time, Japan aims to secure opportunities for Japanese astronauts to play active roles and to develop resources on the lunar surface in the future and is promoting development of the basic technologies (technologies for landing on and mobile exploration of celestial bodies, water exploration technology, etc.) necessary for sustainable exploration activities.

b) Promote expanded use of satellite data

- Satellite data from space has the possibility of serving as the infrastructure to support the Fourth Industrial Revolution. For example, in the field of agriculture, efforts have already started to predict optimal rice harvesting dates from satellite data, to color-code harvesting times, and to support production. While the use of satellite data is expected to expand in autonomous driving and in disaster response, the use of highly public data from government satellites will be expanded by providing the data in free of charge in a format that is easy to process and analyze, while also paying attention to avoid disrupting satellite data sales conducted by private businesses. In addition, there will be steady promotion of the Advanced Geospatial Information Utilization Society (G-Spatial Society) Project, including by building integrated geospatial disaster prevention and mitigation systems.
- With regard to the government's satellite data platform "Tellus," efforts will be made to also maximize the application of knowhow from the private sector, and to expand data and analytical tools from FY2020.
- With a view to streamlining and improving the work of government ministries and agencies, the government will expand the use of satellite data by promoting the proactive use of satellite data by each ministry and agency, as well as strengthen cooperation with local governments and promote the use of satellite data in the regions.
- As for quasi-zenith satellite systems, the government will establish a seven-satellite system while also enhancing functions and performance, with a view to launching operation in FY2023. It will also steadily develop and maintain the corresponding ground facilities as well as strengthen security, while working on improving efficiency. Furthermore, in addition to the steady operation of GNSS Earth Observation Network System (GEONET), the government will advance demonstration projects in a wide range of fields such as agriculture, transportation and logistics, and construction, and accelerate the social implementation of these projects.

c) Improve an institutional environment for new space businesses

- As for sub-orbital flights⁴⁹, which are expected to enable space travel and the airborne launch of small

⁴⁹ The Space Activities Act only regulates the launch of satellites to altitudes of 100 km or higher and is not applicable to sub-orbital flights (flights to an altitude of approximately 100 km). On the other hand, the Civil Aeronautics Act does not apply to sub-orbital flights as it does not envision aircraft flying at altitudes of approximately 100km, so it is necessary to develop a new system for sub-orbital flight.

satellites, the improvement of an institutional environment to develop new space businesses will be promoted, taking into consideration the activities of private companies aiming for commercialization of space in the first half of the 2020s.

- The government will review the establishment of the necessary systems for resource exploration and development in outer space, including on the surface of the moon, by private-sector businesses.
- With regard to space debris measures, the government, in cooperation with private-sector corporations, will take the lead in establishing international rules from FY2020, as well as engage in research and development toward the validation of debris removal technologies. It will also work on developing systems that can provide information on the orbit of space objects appropriately to private-sector corporations and other organizations.

d) Promote the development of innovative technology toward the expansion of space development and utilization

- With a view to satellite development based on an analysis of the future needs of users, the government will build development and demonstration systems in FY2020 through cross-ministerial collaboration and industry-academia-government partnership, and engage in the development of core technologies such as quantum cryptographic communication as well as agile development through microsatellites.
- The government aims to complete the complete the launch vehicle H3 during FY2021, and will also engage in research and development on future space transportation systems that can realize significant cost-cutting.
- In addition to strengthening the development of cutting-edge technology for space security and space science/exploration, the government will also apply the results of development to the industrial sector while promoting the development of specialists and experts who can drive the creation of new industries.

e) Promote the expansion of procurement from venture companies

- The government will expand the scope of the space industry by expanding procurement from private-sector corporations, including venture companies, in projects implemented by the government or other entities (such as removal of space debris). For this reason, it will advance reviews on procurement and contracting methods of government organizations in areas such as the utilization of a new Japanese version of the SBIR system, and the introduction of a flexible contract format such as the milestone payment system.

iii) “Smart” public services

Toward the realization of “smart” public services, the government aims to provide a simple, intuitive, easy-to-understand and user-friendly user interface. At the same time, it will also bring

about greater convenience by further enhancing the automatic processing of administrative procedures and data linkages, and by providing administrative procedures and services in a way that is linked with transactions and services in the private sector so as to reduce the burden on users.

Based on these and in line with the three principles for the digitalization of administrative services—Digital First, Once Only, Connected One-stop, efforts will be made to further accelerate digitalization in this area, including in the regions, and the promotion of the active use of digital technology in the private sector. In order to achieve administrative services that meet the needs of every individual citizen by 2030, the government will promote shared use and the transition to a cloud-based system for government information systems, as well as procurement through interactive technology that contributes to the development of flexible, efficient, and effective systems. At the same time, it will undertake reviews of regulations and practices that require face-to-face meetings, written documentation, and the use of stamping seals. These measures, implemented as a part of Japan’s rapid social reform, will provide the foundation to support administration in the digital era.

Furthermore, the government will put in place initiatives to make Japan “the world’s easiest country for companies to do business in,” based on the Initiatives for Improving the Business Environment (revised in 2020) (decided on April 20, 2020, by the Liaison Conference of the Relevant Ministries for Improving the Business Environment).

1. Promoting digital government

- Based on the Digital Government Execution Plan (Cabinet decision in December 2019), the government will implement measures such as strengthening the centralized project management of government information systems, including consolidated requests for budgets related to the maintenance and operation of digital infrastructure as well as the full-scale use of cloud services, and the promotion of one-stop services. The necessary reviews will also be conducted within the year, and efforts made to accelerate the realization of the respective measures.

The government will also advance the development of a teleworking environment for national civil servants and the rebuilding of a network environment in administration, which will be necessary in order for the government to execute administrative functions appropriately during times of emergency, such as during an outbreak of an infectious disease or when disasters such as earthquakes and typhoons strike, in the same way as they function during normal times.

- With regard to the “the non-stop child rearing service” that aims to digitalize procedures related to child-rearing in collaboration with app developers in the private sector, reduce the burden on households with children, and streamline the work of local governments, the government will work toward nationwide roll-out from FY2023, beginning with the parenting status notification for child allowance and periodic vaccinations, based on the roadmap announced in March 2020. At the same time, the government will conduct reviews on other reviews such as childcare and health

examination for infants and young children and bring about the realization of an environment that provides seamless support at the optimal timing, from pregnancy to preschool.

- As for the further simplification of the parenting status notification for child allowance, the government aims to conduct reviews in FY2020, and based on the results of the reviews, establish the necessary systems. It will also conduct reviews on data standardization, standardization architecture, and other matters related to the digitalization of the status notification, with a view to launching trial operations in FY2021.
- With regard to periodic vaccination, a review will be conducted based on feedback from municipal governments and medical institutions, with the aim of launching trial operations in FY2020. While taking the needs and requests from the review into consideration, further reviews will be conducted toward the realization of concrete frameworks and systems.
- To enable both the public and private sectors to use cloud-based systems in a sustained manner with greater safety and peace of mind, a security evaluation system for government information systems will be established in FY2020 to clearly set out the unified security requirements, and all government agencies will be encouraged to make use of this system. Furthermore, the approach to sharing the cost burden for this system among all government agencies will be concluded by FY2020.
- The public safety LTE system is a communications system that can be used jointly by the relevant ministries, agencies, and organizations such as the police, fire and emergency departments, MLIT, defense, and disaster prevention. In order to bring about the realization of this system, a review framework comprising the service providers and users will be established, and a comprehensive validation carried out from both the viewpoints of operation and technology. At the same time, a review will be conducted on the issues and direction of concrete measures, and based on the results of the review, the government aims to put in place advance services for some agencies from FY2021.

2. Promoting the digitalization of local governments

- With regard to the information systems of local governments, effort will be made to promote the transition to cloud-based systems for even wider areas, while further advancing the use of cloud-based systems by local governments. In doing so, it is important to ensure that lines and data are secure and available to enable local government officials to shift securely to a wide-area cloud-based system, and to secure a competitive environment that does not cause vendor lock-in. Therefore, the government will install safe, high-capacity lines that are able to cope with wide-area cloud-based systems for LGWAN, which will serve as the foundation for this digitalization process. Furthermore, to build the systems that will be used by local governments, the Ministry of Internal Affairs and Communications will present a specific direction by this summer to enable the active involvement of local governments with regard to aspects such as lines and security.
- In order to move the information systems of local governments toward a more wide-area cloud-based system, it is important to abolish the customization of information systems by the respective local

governments. Alongside with the steady implementation of standardization measures led by the central government, the relevant ministries and agencies will work in cooperation to consider a comprehensive response for the standardization of information systems, including security standards, and reach a conclusion as soon as possible. This review will be conducted based on the recommendation by the Local Government System Research Council that standards based on laws and regulations should be established for the functional requirements of systems and other aspects.

- The necessary reviews will be conducted on the “three-tier measures” that have been implemented to date, from the perspective of striking a balance between enhancing efficiency and convenience for local governments, and protecting security. Specifically:
 - For administrative processes that use “My Number” to deal with residents’ information, follow the principle of separating such work from other areas, and at the same time enable the direct import of electronic application data into the system via the Internet under the eLTAX and “Pittari” service systems.
 - Put in place adequate personnel security measures, and review new models for migrating business terminals, finance and accounting, human resource and payroll, as well as other systems, to systems connected to the Internet, within the scope of administrative procedures that do not handle particularly important information (such as residents’ information). After that, revise the Guidelines for Information Security Policy in Local Governments (formulated on March 30, 2001) in 2020.

As for the security requirements for connecting to public cloud systems from the internal environments of local governments, further reviews will be conducted based on the implementation of security evaluation systems for the central government’s information systems, and a definite direction will be decided on in FY2020.

Furthermore, in order to advance remote access and move administrative procedures online for local governments, the government will provide the necessary support with regard to the introduction of teleworking and the establishment of universal electronic application systems, including financial support for new measures that are being implemented from FY2020.

- In order for local governments to engage in sustainable administrative operations while responding to diversifying residents’ needs, effort will be put into wide-ranging horizontal expansion of results, such as the formulation of standard specifications and introduction procedures, through means such as the development and demonstration of cloud-based AI services in a wide range of administrative sectors. An environment that enables the shared use of AI by multiple organizations will be created by FY2022.
- The Digital Service Square was developed as a beta-version of the “marketplace” to consolidate, within a single place, useful digital services and applications for government and citizens that have been developed by venture businesses and NPOs. From FY2020, the full-scale operation of this service will be launched, and support will be provided for the efficient introduction of digital services

and applications in local governments.

3. Realization of “the world's easiest country for companies to do business in”

a) Realization of one-stop services for corporations

- The government will move to an online, one-stop system for incorporation procedures so as to create a world-class entrepreneurial environment, and implement the following initiatives. At the same time, it will periodically verify the status of progress of these initiatives, conduct a review around FY2021, and put in place the necessary measures.
 - Aim to launch a one-stop service for all procedures including the certification of articles of incorporation and registration of incorporation, as well as to make it optional to submit a registration of seal impression alongside with the registration of incorporation (including the online submission of the registration of seal impression), around February 2021.
 - Enable the simultaneous issuance of the gBizID as a part of the one-stop service for incorporation procedures, and make it possible for users to request for online issuance as a measure for enhancing convenience with regard to the electronic certificate for commercial registration. In addition, consider measures for reviewing fees, including the suitability of making the electronic certificate for commercial registration free of charge for a certain period of time, as well as measures for expanding the opportunities for use.
 - Consider an approach to the commercial registration system that makes it possible to ascertain the beneficial owner of the corporation after its establishment, and reach a conclusion in 2020.
- The government will establish a digital foundation for improving the convenience of administrative procedures for corporations, such as the gBizID, by the end of FY2020, and gradually expand use of the system from FY2021.

b) Electronification and automation of taxation and social insurance procedures

- With regard to matters such as the automated input of various application forms through data linkages that make use of Mynportal, an online portal for procedures related to year-end adjustments and final returns for income tax, the government will formulate a roadmap in FY2020 with the aim of realizing the electronification of documents related to deductions and income, such as deductions certificates for social insurance and the hometown tax.
- As for tax and social insurance procedures, the government will enable the seamless completion of the series of procedures from tax returns (applications and notifications) to tax payments (submission of payments), in order to further promote the use of electronic filing and electronic payment services. Furthermore, the government will review needs and issues related to the full-scale roll-out of the cross-cutting “Once Only” system in FY2020.
- Concerning the move to cashless tax and public funds systems and the electronic payment methods for corporations, the government will review the challenges in moving direct debit

applications completely online, including direct payments, as well as the approach to electronic delivery systems for notices of disciplinary actions from administrative agencies, such as the notice of the amount for special tax collection and pension-related documents.

- As a part of efforts to expand the target tax items for the common tax payment system for local taxes, from October 2021, the government will computerize tax filing and payment procedures for financial institutions and other parties subjected to special tax collection, such as withheld tax, levy on dividends, and levy on income from transfer of stock or other assets for individual inhabitant tax. Taking into consideration the status of reviews by local governments and economic organizations, the government will also continue to undertake reviews on expanding the tax items, which many taxpayers have called for, and come up with a future direction for promoting use of the system.

c) Promoting the adoption of IT for court proceedings, etc.

- The following initiatives will be implemented while ensuring respect for the autonomous judgement by the judicial branch.
 - Revisions will be made to the Code of Civil Procedure and other laws during 2022, in order to realize online petition, digitization of case records, service of complaint by electronic means, electronic payment for fees, etc., and appointed court dates for non-face-to-face hearing on which neither party appears.
 - Based on the summarization by the Liaison Council of the Relevant Ministries and Agencies concerning the Promotion of Civil Justice System Reform, and in consideration of the IT situation, the government will gradually consolidate the means of filing documents such as complaints into online filing, while taking care to secure the people's access to justice. In this process, mandatory online filing only for professionals, such as lawyers and Shiho-Shoshi (judicial scriveners), will be considered. With regard to lawsuits undertaken without legal representative ("pro se litigations"), contents of supports by the Japan Legal Support Center, including IT support such as assistance in the digitization of documents as well as legal advice, will be considered from FY2020. In addition, it is also expected that other organizations, such as the Japan Federation of Bar Associations and Japan Federation of Shiho-Shoshi's Associations, will consider such supports. Furthermore, measures to promote the use of online filing, such as preferential treatments (including the collection of digitization fees when documents are submitted in paper form), will be considered.
 - The government will put in place the necessary measures with the expectations that the judicial branch will conduct the following things: (a) The operation of non-face-to-face consultations through web conferences, which are already available under the existing Code of Civil Procedure, will be launched in FY2020 at the main offices of district courts all over Japan, and successively launched at branches of district courts from FY2021. Successive expansion to the high courts etc.

- will be considered based on an assessment of the situation; (b) Based on the premise of amendment to the Code of Civil Procedure and other laws in 2022, 1) expansion of the operation of non-face-to-face proceedings for arranging issues, and launch of operation of appointed court dates for non-face-to-face settlement etc., could be conducted in FY2022 at the earliest, and 2) operation of appointed court dates for non-face-to-face oral arguments could be launched in FY2023 at the earliest; c) Operation of filing briefs through electronic data processing systems under the existing Code of Civil Procedure will be aimed to achieve promptly in some courts during FY2021, and widespread use of electronic filing will be promoted thereafter; (d) Regarding the full-scale implementation of online filings based on the premise of amendment of the Code of Civil Procedure and other laws, system development and amendment of regulations will be implemented in parallel with studies and deliberation by the Legislative Council of the Ministry of Justice, overall plan for the adoption of IT will be formulated, and the full-scale use of electronic filing etc. will be aimed to achieve in FY2025, while considering its partial use in advance; (e) IT support at courts for pro se litigations will be considered, and case management systems will be established as easy to use from the user's perspective; (f) Improvements to operation in order to realize planned, fair and speedy trials will be considered.
- Reviews will be conducted on the propriety of creating special court proceedings, including the setting of a maximum trial period. While also taking into account the consideration of the adoption of IT for civil procedure in the Legislative Council, reviews will be conducted on the schedule for the adoption of IT in FY2020, such as proceedings for domestic relations cases, civil provisional remedies, civil execution, and bankruptcy proceedings.
 - With a view toward adopting open-data and big data for civil judgement data, reviews will be advanced toward the appropriate utilization of civil judgement data, including consideration of privacy and trade secrets as well as measures toward the structuring and standardization of data. The aim is to set out a path for the future in FY2020.
 - With the aim of enhancing efficiency and realizing non-face-to-face, remote proceedings in criminal procedure as far as possible, reviews will commence in FY2020 on measures for the adoption of IT in investigations and trials, such as the online receipt and delivery of documents including warrant requests and issuance, electronification of data for criminal documents, and trials conducted online.
 - To promote online dispute resolution (ODR), the following reviews will be conducted in FY2020: reviews that include consideration of the need to reexamine certification systems such as the making settlement agreement in dispute resolution procedures related to alternative dispute resolution (ADR) in the private sector enforceable, and the strengthening of the duty of confidentiality for certified dispute resolution business operators; reviews on the implementation of non-face-to-face/remote consultations and proceedings carried out online in cases such as administrative ADR including designated dispute resolution organizations under the financial ADR system, consultation centers for

subcontractors, as well as the Japan Consumer Information Center, agreement and securing the fulfilment of obligations with regard to child support and visitation and other contacts after divorce; reviews on promoting the introduction of ODR by platform operators, relating to consumer transactions conducted via platform-based e-commerce.

- To cope with the increase in cross-border consumer disputes, the Cross-border Consumer Center Japan of the National Consumer Affairs Center of Japan will strengthen its stance and functions, such as by strengthening the personnel system and supported languages, and reviewing the processing of consultations through the use of IT.

d) Improve trade procedures, port logistics, etc.

- In addition to establishing "Port Data Collaboration Platform (tentative)" within 2020 to facilitate port logistics, including trade procedures between private-sector businesses from different industries, reviews will also be conducted on data linkages with other systems, and a conclusion will be reached in FY2020.
- The full-scale operation of CONPAS⁵⁰ at Yokohama Port will be launched in FY2020, alongside with other measures, toward the realization of "AI terminals that assist harbor workers."

e) Digitalization of real-estate information and services

- From the perspective of abolishing the practices of acquiring and submitting certificates of fixed asset valuation, reviews will be conducted in FY2020 on measures such as promoting the expansion of online provision of asset valuation notification to the Legal Affairs Bureau by municipal governments, which commenced in January 2020, and the utilization of the statement of fixed asset tax in company registration procedures.
- Based on the premise of ensuring security for real-estate transactions, and taking into account the results of social experiments that are currently being conducted as well as other information, the necessary systems will be established with a view to the full-scale operation of the explanation of important matters through the use of IT in sales transactions. At the same time, capturing the opportunity of recent legal amendments, revisions will be made to the relevant provisions of the Real Estate Brokerage Act to enable, for example, the issuance of documents on important matters in real-estate transactions through electromagnetic devices.

4. Radical review of regulations and practices that require face-to-face meetings, written documents, and the use of stamping seals

- The following initiatives will be implemented to promote the digitalization of economic activities, etc. in the private sector, including teleworking.
 - The government, in cooperation with the business community, will conduct a review of systems

⁵⁰ Abbreviation for "Container Fast Pass," the new port information system.

and practices such as the use of stamping seals and submission of written documents. In particular, with regard to various procedures in financial institutions, the government will review practices across the whole of the financial sector and promote electronification alongside with the abolition of face-to-face meetings, written documents, and use of stamping seals.

- As for commercial transactions in the private sector, in addition to presenting a point of view in response to concerns over the abolition of the use of stamping seals or the significance of provisions in laws related to stamping seals, the government will also clarify the interpretation of electronic signatures in the Act on Electronic Signatures and Certification Business and promote widespread awareness.
- In principle, the necessary reviews on all administrative procedures that require written documents, the use of stamping seals, and face-to-face meetings will be conducted in 2020.
- At the same time, the transition to online, one-stop, and “once only” systems for administrative procedures will be advanced radically. In principle, initiatives such as the abolition of face-to-face meetings and the use of stamping seals, reduced use of application forms as far as possible, and information sharing through a corporate data linkage platform (gBizConnect), will be accelerated.
- With regard to the internal procedures of administrative agencies and other organizations, alongside with the swift abolition of the use of stamped seals and document submissions, etc. that do not require institutional response, reviews will also be conducted in 2020 on practices that require institutional responses, as a part of an overarching work review that covers all work processes across the public and private sectors. In particular, with regard to accounting processes, effort will be made to reduce the burden on the partner to a contract, such as by abolishing the use of stamping seals, except on the contract itself, and by promoting the active utilization of electronic means for contracts.

5. Promoting the “My Number” card and its active use

- With the aim of building a safe, secure, and highly convenient digital society as well as a fair and efficient administration founded on the “My Number” card, and based on the policy for promoting the “My Number” card and the active utilization of the “My Number” system (decision by the Ministerial Meeting on Digital Government, on June 4, 2019) and the Digital Government Execution Plan, the government will advance the necessary measures such as measures to stimulate consumption through the use of “Myna Points,” use of the “My Number” card as a health insurance certificate, and the digitalization of various cards through the use of the “My Number” card.
- With regard to the “My Number” system, which forms the basis for a digital government, radical measures will be taken to make it more convenient and user-friendly for the citizens based on the fundamental principle of completing administrative procedures online.

- In order to expand PHR⁵¹, alongside with efforts to implement the necessary legal measures in 2021 for using the “My Number” card to provide lifelong health data, from birth to work, as a comprehensive list through the use of the “My Number” card by 2022, a review will also be conducted on the approach for the application of such data to medical and nursing research. Digital support will also be promoted to make it unnecessary to present one’s disability certificate in order to use a disability discount, but to replace it with the use of the “My Number” card as the official personal identification certificate. Moreover, with regard to areas such as e-Tax, effort will be made to successively expand the scope of information that can be input automatically (such as medical expenses, bank account for the transfer of public funds), and to enhance the user-friendliness of the “My Number” card.
- Reviews on integrating the residence card with the “My Number” card will be advanced, and a conclusion reached in 2021.
- A review will be launched on matters related to driver’s licenses, including the approach to issuance procedures and system linkages, while taking into consideration case studies of other countries.
- At the same time, a review will also be commenced on vehicle inspection certificates and vehicle inspection registration procedures, with a view to promoting the further digitalization of procedures through the use of the “My Number” card.
- In addition, a review will be conducted on the utilization of the “My Number” system in areas such as various licenses and national qualifications, as well as education. Common functions will be built on a cloud where necessary. Effort will be made to enhance the user-friendliness of the Myna Portal through more proactive use of technology from the private sector.
- Together with these efforts, the schedule for promoting the effective acquisition of the “My Number” card will be accelerated⁵² as far as possible, through the radical expansion of environments that facilitate “My Number” card procedures, such as the implementation of measures to stimulate consumption through the use of “Myna Points” and resending of card application forms with QR codes.
- The Myna Portal and other means will be actively utilized, and effort made to create an environment for setting up bank accounts for the transfer of public funds, with a view to simplifying and accelerating the procedures for receiving public funds, such as national tax refunds, pension benefits payout, various other payouts (such as cash benefits for citizens), emergency small loans, support grants for reconstructing livelihoods of disaster victims, and

⁵¹ Personal Health Record. This is a system that enables individuals and their families to have an accurate grasp of their personal health throughout their lifetimes, from birth to school and work. It takes the form of electronic records that utilize the Myna Portal and other systems.

⁵² The overall schedule (provisional) and other documents related to the issuance of the "My Number" card, presented by the Ministerial Meeting on Digital Government in September 2019, assumes that most residents will have the "My Number" card in FY2022, based on the measures to stimulate consumption through the use of "Myna Points," implemented from September 2020, and the use of the card as health insurance certificate, which is scheduled to commence from March 2021.

various scholarships. In addition to establishing systems for reaping the benefits of digitalization during times of emergency, such as when disasters strike or during succession, a review will be conducted on the approach to assigning “My Number” to savings accounts, including the setting of accounts for the transfer of public funds, in order to bring about the realization of a fair social security system that is oriented to all generations. A conclusion will be reached on this review in 2020.

- Toward the establishment of a digital foundation across the “My Number” system and the national and local governments, the government will realize processes within 2020 to bring about radical improvements, including the early unification and standardization of the work systems of local governments and move toward implementation beginning with the elements that are ready.

iv) Next-generation infrastructure

1. Raising productivity in the area of infrastructure, and resolving issues in disaster prevention, transportation, logistics, and cities

In order to cope with the changes in the socioeconomic climate as a result of the infectious disease and other factors, and to support economic growth, the government aims to strengthen the functions of industrial infrastructure through the early development and utilization of infrastructure including high-speed transportation networks, such as high-standard arterial highways, projected Shinkansen lines, and the Linear Chuo Shinkansen Line, as well as international hub airports, International Container Hubs and strategic international bulk ports. Furthermore, as the government has a heavy responsibility of protecting the lives and livelihoods of the people from increasingly severe and frequent flood disasters, imminent large-scale earthquake⁵³ disasters, volcanic disasters that can occur at any time, we should strongly promote initiatives that integrate the structural and non-structural disaster prevention/mitigation measures and the strengthening of national resilience, through the united and collective efforts of all stakeholders such as the national and local governments, while at the same time moving toward digitalization and the development of smart infrastructure. In addition, it will also take advantage of new technologies in the fourth industrial revolution to advance initiatives in areas such as “invest wisely, use wisely” strategic infrastructure management and the Compact Plus Network, and advance efforts to maximize the stock effect of infrastructure, such as improvements in productivity and convenience, and stimulation of private investment.

a) Development, maintenance, and management of infrastructure

- In order to raise productivity in the construction sector while securing human resources based on improvement to working conditions and work style reforms, the government will promote

⁵³ Massive earthquakes such as the Nankai Trough earthquake, a Tokyo near-field earthquake, and an earthquake along the Japan Trench and Chishima Trench (including the tsunamis caused by these earthquakes).

initiatives such as ensuring appropriate construction period and the electronification of applications for procedures including approvals. At the same time, it aims to work together with the private sector to realize the full implementation of the Construction Career Up System (CCUS) from FY2023, streamline application procedures through linkages with the “My Number” card and Myna Portal, and to bring about the integration of qualification certificates. Information will also be shared between this system and the Foreign Workers Centralized Management System for the efficient management of foreign construction workers.

- Taking into consideration structural changes such as decline in population, effort will be made to promote digitalization and the manifestation of economies of scale in the regions as well, with a view to raising the productivity of the construction sector. At the same time, wide-area cooperation in the construction sector will be promoted with the aim of realizing efficient and sustainable maintenance and management of social capital in the regions.
- The government will accelerate the i-Construction initiative through the introduction of core technologies such as AI, and from FY2020, commence the demonstration of unmanned construction technology as well as trials on remote inspection and supervision technology that uses audio and video. It will also promote the DX of infrastructure, such as the transition to remote and non-contact working at construction sites, as well as engage in industry-academia-government collaboration on the review of standards such as inspection and supervision standards. Furthermore, in order to expand the scope to small- and medium-sized enterprises and local governments, initiatives such as the following will be implemented: expanding the application of ICT to maintenance and repairs; introducing simple construction projects that utilize ICT, which make partial use of three-dimensional data in the construction process, and; the development of human resources who are equipped to offer advice on the adoption of ICT.
- To raise productivity at construction sites, the government will put in place performance criteria and other means to enable the active use of GNSS stations in public works, etc. by private-sector entities and others, in areas where less public GNSS stations are available. The system will enter full-scale operation from FY2021.
- BIM/CIM will be utilized in all public projects with the exception of small-scale projects, by FY2023. To that end, in addition to establishing domestic standards based on IFC5, the international standard for three-dimensional data, reviews of certification systems for qualifications will be accelerated with a view to making the best use of BIM/CIM engineers. BIM will be introduced on a trial basis into construction design and works ordered by both the public and private sectors, and reviews advanced on measures toward the spread of BIM, including the verification of effects and extraction of operational issues. In addition, toward popularizing the submission of application for confirmation of construction through BIM, support will be provided to support the electronification of applications for confirmation by designated confirmation and inspection bodies, and reviews will be advanced toward support for electronification by the designated administrative agencies.

- In order to raise productivity in the infrastructure sector through digital twin, a comprehensive data platform for national land and transportation will be built by FY2022. This will link data on infrastructure such as buildings and foundations, with various other forms of data including transportation and logistics, and information on weather and disasters. To that end, the Land and Transport Data Council will be utilized to improve the functions of the prototype of the Land and Transport Data Platform 1.0 (published in April 2020), expand its linkage with data held by the respective ministries and agencies as well as the private sector, and develop elemental technology.
- Existing stock will be optimized in order to enhance the efficiency of infrastructure maintenance. At the same time, guidelines will be formulated on the use of drones, AI and other forms of technology in the monitoring of Aids to Navigation, while guidelines on advanced maintenance and management methods for floating offshore wind turbines will be developed by FY2021. With regard to road facilities, alongside with promoting the adoption of new technology based on the policy for promoting the introduction of new technology, the approaches to selecting the optimal inspection method that utilizes new technology for each facility will be organized, and reviews on the establishment of a qualification system for inspection engineers will be launched from FY2020.

b) Disaster prevention and disaster response

- The government will develop and demonstrate IoT, AI, and other forms of technology for determining the inundated areas in real-time when rivers flood in FY2020. It will also prepare elevation data and other information that will be utilized as the basis for understanding inundation depth. Furthermore, in order to realize river patrols that utilize drone and image analysis technologies, demonstrations will be conducted in FY2020 on technology that replaces or complements patrols carried out by humans.
- To carry out effective flood control using existing dams, a system that can predict dam inflow amount for the whole of the river system at a high precision will be developed in FY2020, while initiatives aimed at enhancing the sustained accuracy of weather forecasts will be advanced. Research and development will also be carried out to predict rainfall and amount of dam inflow more efficiently and effectively through using AI. To apply water use capacity also in Class B river systems for the purpose of flood control, flood control agreements will be concluded successively between river administrator, dam administrator entities, and the related water users.
- The technology that analyzes images of surveillance camera in river basins using AI, and which captures the rising risk of occurrence of sediment disasters, will be developed in FY2020, and demonstrations carried out by FY2021.
- To promote truly effective and efficient disaster prevention and mitigation, the government promotes transition to “Integrated Flood Management,” which implements structural and non-structural measures including revision of river-related laws integrally, cooperated with all stakeholders around a river basin.

c) Resolve transportation and logistics issues

- Alongside with the realization of AI terminals by FY2023, such as the commencement of demonstrations on the automation of container trailers in FY2020, the government will promote the establishment and use of “Port Data Collaboration Platform (provisional)” and expand its scope to include information on port-related administrative procedures as well as the maintenance, management, and usage status of port facilities. It will also achieve world’s highest level of productivity in port logistics, and create a remote, non-contact, and safe work environment.
- To promote universal design and enable all pedestrians, including disabled persons and baby stroller users, to use roads safely, guidelines will be formulated in FY2020. This includes guidelines on methods for the collection of data on pedestrian spaces. Childcare support facilities will be set up at highway service areas and “Michi-no-eki” roadside stations.
- In addition to promoting the exclusive use of ETC for toll roads, which also contributes to the transition of fee collection work on toll roads to non-contact format, the government will also utilize ETC2.0 to promote operation that does not restrict temporary exit destinations from highways, so as to enhance the convenience of roads, as well as promote enhanced productivity for truck transportation through the use of ETC2.0 data through public-private partnership. It also aims to distribute data to private-sector corporations by FY2020. In addition, the government will instantly provide a map, created using actual traffic data of vehicles fitted with ETC2.0, to organizations including private-sector businesses, in order to support the transportation of emergency relief supplies immediately after a disaster occurs.
- To accelerate the easing of main areas of congestion, ICT and AI will be actively adopted for transportation surveys such as the National Road and Street Traffic Situation Survey (Road Traffic Census), traffic congestion measures that utilize the acquired road and traffic data will be implemented. In addition, a car park reservation system will be adopted to ease congestion caused by people waiting to enter car parks at sightseeing spots.
- On top of efforts to rationalize traffic conditions for special vehicles, the government will establish specifications, in FY2020, for in-vehicle load measuring devices with a view to monitoring overloading through the use of ICT.
- With a view to realizing speedy and smooth logistics as well as the government’s goals for autonomous driving on highways, initiatives will be put in place to strengthen high-standard road networks, including promoting the development of the three major metropolitan ring roads and strengthening access to airports and ports.
- With a view to realizing truck platoons on highways, the government will enhance the stability and efficiency of double networks that connect the three major metropolitan areas by extending the Shin-Tomei Expressway and Shin-Meishin Expressway to six lanes. It will also create an environment for the demonstration of safety measures for merging sections on the main trunk route, and of the widening of existing SA and PA, with a focus on the Shin-Tomei Expressway (Shizuoka section).

- By taking advantage of the current low-interest rate situation, the government will work to develop, as soon as possible, high-speed transportation networks such as high-standard arterial roads and the Linear Chuo Shinkansen Line, as well as the logistics facilities and major urban rail networks that provide access to international hub airports and ports.

d) Enhance competitiveness of cities

- To accelerate the nationwide expansion of “Smart Cities” and inter-city cooperation of “Smart Cities”, guidelines will be formulated in FY2020. Furthermore, models will be developed with the aim of enhancing data-driven urban development methods and improving city management, based upon world-class 3D city models, while information will be disseminated and support provided to companies expanding overseas.
- In order to promote the systematic repair and improvement of urban infrastructure in residential advancement district in sitting optimization plan, with a view to accelerating Compact Plus Network initiatives, urban development procedural guidelines will be revised in FY2020. Support will also be provided for excellent urban development initiatives by the private sector, such as the development of complexes, and methods for rebuilding spaces around stations will be introduced, among other initiatives, in order to strengthen competitiveness of cities even beyond the Tokyo Olympics. At the same time, effort will be made to create town areas that are walkable.
- To attract stable medium- to long-term investments from within and outside Japan, the government will visualize investment-oriented real estate transactions by corporations, and conduct reviews aimed at announcing in FY2021 a corporate transaction volume index (provisional name) that will contribute to revitalizing the real estate market and enhancing its transparency. To promote ESG investment, a guidance related to the Task Force on Climate-related Financial Disclosures (TCFD) will be formulated in FY2020. In addition, a new system for the rental housing management industry will be implemented from FY2020.
- With a view to promoting the circulation of existing quality housing and revitalizing the home reform market, a review will be conducted in 2020 on measures to promote the acquisition of certification such as the rationalization of criteria for the certification of excellent long-term housing, and the necessary institutional measures will be implemented from 2021.
- Based on the Basic Policy for the Promotion of Measures for Land with Unknown Owners (decision by the relevant Ministerial Committee for the promotion of measures for land with unknown owners on July 3, 2020), the government will implement measures for lands with unknown owners, measures for inadequately managed land, such as support for advanced initiatives by a land bank as well as work on facilitating and speeding up cadastral investigations through the introduction of efficient methods such as the use of remote sensing technology. At the same time, it will further promote the improvement of maps provided by registry offices through means such as applications for parcel boundary demarcation by local governments and the utilization of results of

block boundary surveys. It will also review survey methods for the public announcement of land prices so as to respond to the individualization and multi-polarization of land prices.

- To attract private investment and bring about the realization of bustling road spaces, the Road Structure Ordinance will be revised in FY2020 and guidelines formulated for digital signage advertisements and other matters. In addition, a road system that enhances convenience for pedestrians by building pedestrian-centered road spaces, will be utilized by local governments in more than five locations across Japan.
- Reviews on use cases that make use of the 5G communications environment at road spaces and “Michi-no-eki” roadside stations with disaster prevention functions, will be conducted in FY2020. Based on upon the implementation of demonstration tests with cooperation between public and private stakeholders, and taking into consideration the results of the reviews, the necessary institutional measures will be implemented.
- To stimulate the formation of the super-mega-regions and achieve the wide-area expansion of their effects, the government aims to formulate a roadmap by FY2022 for advanced initiatives, based upon the implementation of feasibility studies for each of the eight Regional Plan Districts across Japan.

2. Accelerating the introduction of PPP/PFI methods

Initiatives will be promoted toward achieving the numerical targets for the priority areas for concession projects (airports, waterworks and sewerage, roads, educational facilities, public housing, passenger terminals for cruise ships, MICE facilities, public hydropower generators, and industrial waterworks) set out in the PPP/PFI Promotion Action Plan (2020 revision) (decision by the Council for the Promotion of Private Finance Initiatives on July 17, 2020). The utilization of the timber harvesting right system will also be promoted. Furthermore, private sector knowhow will be utilized while suppressing the financial costs of the public sector, and the utilization and popularization of the “Pay for Success” (PFS) methods, which is a outcome-based private consignment contracting methods that resolves social issues and enhances the efficiency of the public sector, will be promoted.

With regard to the availability payment method for infrastructure that does not generate usage fees, the government will formulate guidelines that set out the definitions and means of utilization for this method, such as putting long-term maintenance and management together with renovations and updates, and also contracting based on results and performance. Furthermore, the government will recruit national agencies and local governments that are considering the utilization of this method, implement feasibility studies for 10 cases or more by FY2022, and move forward on project formation.

a) Promote initiatives on priority areas for concession projects and the timber harvesting rights system

- The Act on Promotion of Private Finance Initiative states clearly that in addition to the maintenance and operation of a facility, concession business operators (operation of public facilities, etc.) can also carry out construction, manufacturing, and rehabilitation that is closely related to the said project, in order to facilitate more efficient operation of the project. For this reason, the reform bill will be submitted at the ordinary Diet session in 2021.
- With regard to benchmarking mechanisms that compare the business conditions, service levels, and sustainability of each waterworks and sewerage project side by side, the government will study the systems of foreign countries and review the feasibility of introducing such systems in Japan.
- As for the establishment and renovation of stadiums and arena facilities that have been planned across Japan, the government aims to bring about the realization of projects by considering methods for utilizing a system of the operating rights system for public facilities as well as methods of support by the government.
- With regard to the timber harvesting rights system, a review will be conducted on the duration of timber harvesting rights and the supply amount from state-owned forests, based on market sounding. This is necessary for ensuring a stable supply of 100,000m³ of raw timber through the region, which is the volume of raw timber required by large-scale sawmills.
- The creative efforts that are unique to the private sector, generated through projects in which the system of the right to operate public facility is applied, will be organized and provided to local governments that are interested in the application of the system.

b) Promote the Pay for Success methods

- The government, together with private-sector practitioners, will conduct a follow-up in order to monitor efforts for the promoting of PFS methods by the relevant ministries and the status of compliance with the Action Plan on Promoting the Pay for Success methods (decision by the Ministerial Meeting on Promoting the Pay for Success methods on March 27, 2020)
- Besides priority areas (medical care and health, welfare, prevention of recidivism), the government will promote popularization of PFS methods in other areas such as urban development and employment support through support for project development and the horizontal expansion of good practices.

v) Reform across the whole agriculture, forestry and fishery industry, and realization of a Smart agriculture, forestry and fishery industry

Amidst the decline of agriculture, forestry and fishery operators in Japan, in order to respond to the sudden shortage of labor and new international environment brought about by the novel coronavirus pandemic, it is vital to utilize cutting-edge technology such as ICT, as well as to develop human resources and integrate and consolidate farming land, so as to maintain and develop the productivity of the agriculture, forestry and fishery industries.

In addition, it is also necessary to actively create an environment that supports agriculture, forestry and fishery by advancing reforms in the value-chain and promoting exports, among other measures.

By strongly promoting reforms to that end, the government will strive to enhance the competitiveness of the agriculture, forestry and fishery industry as well as to strengthen food security, while also bringing about the realization of a strong agriculture, forestry and fishery industry even under the circumstances of a population decline.

1. Accelerating agricultural reform

a) Strengthen production sites

(Raising productivity, human resource development, etc.)

- In cooperative partnership with farmers, the government will promote the nationwide roll-out of pioneering examples of new production entities that apply creative efforts to farming work agencies, instruction on Good Agricultural Practice (GAP), utilization of ICT, processing and storage, and other agricultural activities, by FY2022.
- Based on excellent examples of councils under municipal governments or agriculture cooperatives that provide support to new agricultural workers, the government will develop a manual in FY2020 and promote its firm establishment among new agricultural workers nationwide.
- Efforts will be made to enhance the agricultural education environment across Japan, such as by lobbying agriculture cooperatives and agricultural management entities in FY2020 to provide their cooperation on practical training in agricultural high schools, using the latest agricultural machinery.
- To make it easier for women to work in the agriculture industry, the government will formulate a manual for establishing regional childcare support networks, including advanced case studies, in FY2020, and disseminate it nationwide.
- With regard to agriculture and welfare partnerships, the government will promote matching of the needs of both the agriculture and the welfare parties, nurturing of professionals, and the establishing of one-stop centers in all prefectures. At the same time, it will also promote such partnerships nationwide, such as by launching an award for excellent initiatives in 2020.
- With regard to the reform of agricultural cooperatives, initiatives will continue to be promoted based on the progress of reforms carried out independently by the cooperatives, reviews will be conducted based on the revised Agricultural Co-operatives Act, and the necessary measures implemented.

(Accumulating consolidating farmland)

- Based on the revised Act on Promotion of the Cropland Intermediary Management Program, stakeholders in the region will work as one to intensively promote the realization of “the Farmers and Farmland Plan” in FY2020, and successively advance the materialization of the accumulation and consolidation of farmland to farmers with the realized plan at the core of the measures.
- In collaboration with the abovementioned measures, the government will accelerate the

establishment of corporate management entities through measures such as dispatching experts from agricultural management consultation offices, and producing a collection of excellent cases in FY2020.

- With regard to the Japanese agricultural direct payments system, the government will intensively promote, by FY2022, the formulation of a village strategy covering areas such as the maintenance of farmlands in hilly and mountainous areas in the future. At the same time, it will promote diverse initiatives to preserve terraced rice fields and harness the features of the hilly and mountainous areas.
- As for land improvement projects, effort is being made to strengthen agricultural competitiveness, through enlargement of farmland plots and multi-purpose use of paddy fields, while working on reducing costs. Alongside with that, it will urgently implement measures to strengthen the resilience of reservoirs agricultural and irrigation facilities and develop implementation systems nationwide through the formulation of basic guidelines and promotion plans in FY2020, based on the Act on Special Measures for Reservoir Construction ⁵⁴.
- Farming-photovoltaics will be expanded across Japan through the production of a manual for agricultural businesses that use the electricity for private consumption by FY2022, and other measures.
- With a view to strengthening the international competitiveness of the livestock industry, the government will conduct a review of special laws that exclude certain livestock barns and other relevant structures from the Building Standards Act, and prepare the necessary legislative bills, in FY2020.
- Effort will be made to promote urban agriculture, such as by producing, in FY2020, a collection of excellent cases of matching initiatives carried out by agricultural cooperatives and others, in which the law on leasing farmland in cities is applied.

(Reform of rice-related policies)

- To enable the selection of agricultural produce based on the management decisions of the farmers themselves, effort will be made to establish the reform of rice-related policies, such as by creating 500 highly profitable crop producing areas by FY2025 through support for the provision of detailed information and the full utilization of paddy fields.
- The government aims to reduce production costs of rice by means of the establishment of cultivation techniques in each region with high-yielding rice varieties, incorporating differentiation of cropping seasons by FY2022.
- The government will create by FY2023, across all parts of Japan, model production areas that carry out continuous cover and integrated cultivation of rice, wheat, and soybeans.

⁵⁴ Enforced from the date stipulated by government ordinance, within a range that does not exceed six months from the date of promulgation (June 19, 2020).

b) Promote reforms in the value-chain

- Based on the Act on the Support for Strengthening Agricultural Competitiveness, initiatives such as the reorganization of the materials and distribution industries, including wholesale and retail businesses for agricultural materials that were targeted in April 2020, will be promoted.
- In the value-chain for agricultural, fishery, and other products, AI and robotic technology will be utilized to achieve automation for product sorting, transportation, and data input in logistics bases including wholesale markets in order to reduce cost by FY2022.
- To promote sixth industrialization, the government will promote primary processing through cooperation between agricultural, forestry, and fishery businesses and other industries, and establish systems by FY2022 to match the relevant businesses in each prefecture.
- Based on the Act on Promotion of Food Loss and Waste Reduction, the government will call for the relaxation of delivery deadlines toward the “National Day for the Simultaneous Revision of Commercial Practices” on October 30, 2020, build systems to match food-related businesses and welfare organizations through food banks, and promote the reduction of food loss and waste nationwide.
- For the purpose of the drastic strengthening of countermeasures against damage caused by wildlife, the securing of a safe and secure supply system of wild game, and the expanding the use of wild game including doubling the amount of consumption in FY2025 compared to FY2019, the government will establish rules for the sharing of information pertaining to production areas for users, such as information on animal species and inventory volume. These rules will be established in FY2020 through validations, and rolled out nationwide.
- With a view to increasing the income of farmers, the government will reach conclusion by the first half of FY2021 on overhaul and optimization of the Agricultural Product Inspection Standards and commercial practices, and enactment of the new Japanese Agricultural Standards (JAS).
- The “Go To Eat” campaign will be implemented while assessing the situation of the novel coronavirus infectious diseases. In the implementation of this campaign, thorough measures to prevent the spread of infection will be put in place, and points that can be used at eateries will be awarded to consumers who make reservations and visit the eateries during the campaign period, via online dining reservation sites. In addition, meal vouchers with bonuses, and which can be used at registered eateries, will be issued to stimulate demand for dining out. At the same time, support will be provided toward the implementation of new business operating styles, including home deliveries and takeaways.

c) Promotion of smart agriculture**(Promotion of smart agriculture)**

By FY2022, the government will advance measures in an integral manner for research and

development, demonstrations and popularization, and creation of environment, including the following initiatives, in order to develop an environment for the steady and full-scale on-site implementation of “smart” agriculture.

- In addition to producing educational materials for “smart” agriculture in FY2020 toward the development of a “smart” agriculture curriculum at all agricultural college, conduct a review on the implementation of a “smart” agricultural technology idea contest for students during the same fiscal year, so as to foster interest in “smart” agriculture among young people.
- To actively utilize agricultural data and prevent the leakage of agricultural production knowhow, disseminate the guidelines on contracts related to AI and data in the agricultural sector, formulated in March 2020, through means such as the distribution of leaflets and the training of extension officers, consultants for comprehensive support offices for intellectual property, patent attorneys, and other personnel.
- By FY2022, develop methods for producing and utilizing maps for autonomous agricultural equipment and the automatic operation of drones, based on coordinate data acquired with the use of ICT in the construction process of the agriculture and rural area development.
- Update data on farmland lots (“Fude Polygon” system) for the whole of Japan in FY2020, and conduct demonstrations utilizing automatic navigation guide data for drones and other devices in FY2021.

(Development and popularization of agriculture support services)

In order to support the development of the agricultural industry as a growth industry amidst the decline in number and ageing of farmers, the government will implement the following initiatives integrally, so as to develop by FY2021 an environment for developing and popularizing agriculture support services that make use of advanced technology such as harvesting robots and drones that spray pesticides.

- Review the establishment of systems for providing the funds needed by agriculture support service providers to develop advanced technology, and the enhancement of insurance systems.
- Establish in FY2020 a portal site that introduces agriculture support service providers to students of agricultural college, and based on this, launch the provision of internship and employment information to support the securing of human resources.
- In FY2020, conduct surveys on the needs of farmers and the contents of services provided by agriculture support service providers, formulate guidelines on the standardization of information to be disseminated about the services offered by agriculture support service providers, and provide services to match them with farmers. Promote the participation of agriculture support service providers through the announcement of viable business models by FY2021.
- To enable the selection of agriculture support services that are suitable for agricultural management and allow farmers to visualize their work processes, share examples of initiatives that improve work

processes through the use of the GAP method and promote guidance and instruction by extension officers and other relevant instructors.

- To promote the establishment and improve the operation of regional development organizations that provide regional services, including agriculture support services, a training curriculum for nurturing coordinators and collection of excellent cases will be produced in FY2020.
- The creation of matching opportunities, analysis of issues, and review of the creation of an environment, and other measures will be implemented on a platform that private-sector corporations and research institutions will participate in, with a view to creating agriculture support services.

(Establishment of a new framework)

- In order to promote, in an integral manner, initiatives for the development of “smart” technology to raise the productivity of the agricultural, forestry, and fishery industries, development of food tech technologies to create new demand, and on-site implementation of the technologies, a new framework to provide multifaceted support for initiatives by the relevant businesses will be reviewed in FY2020 and the necessary measures implemented.
- To mitigate the damage caused by pests to agricultural product, measures will be implemented to collect information on pest incidence through the use of drones, and to develop technology to forecast pest incidence through the use of AI, in order to build the new Pest Forecasting Program by FY2025.
- Toward realizing agricultural production that takes a view to climate conditions in the future, the government will work on developing big data for climate, items, technology, yield, and other elements across Japan, and on predicting yield through the utilization of AI, and strive toward presenting an optimal production model for the regions by FY2025.

2. Promoting exports

- Based on Act on Facilitating the Export of Agricultural, Forestry and Fishery Products and Food , the relevant agencies will work closely promote consultations with importing countries and regions toward relaxing or lifting the import restrictions on Japanese food, to accelerate the certification of establishments that conform to the requirements of importing countries and regions, and to promote other initiatives.
- With regard to the one-stop online application and issuance system export certificates, which has commenced operation in April 2020, the government will improve the system in order to apply for all types of export certificates by FY2021.
- The government will commence the dissemination of excellent cases under the Global Farmers/Fishermen/Foreser/Food Manufacturers Project (GFP), which conducts “export diagnostics” , will commence in FY2020, alongside with other initiatives such as the development of global production areas, the establishmen of cold chains through the projects that link production

areas with ports, compliance with overseas regulations for processed foods, and thorough market research through the Japan Food Product Overseas Promotion Center (JFOODO).

- The Japanese Agricultural Standards (JAS) for freshness evaluation methods for fresh fish and shellfish will be established in FY2021, with a view to expanding our exports by such international standardization.
- An export strategy for rice will be formulated in 2020, and initiatives implemented to develop sales and production areas with a clear target demographic. The government will also promote initiatives to carve out new demand in Japan and abroad.
- To promote the export of Japanese liquor, the government will work on branding for overseas markets and building model cases for sake brewery tourism in FY2020. At the same time, it will start research with a view to registering Japanese sake as a UNESCO intangible cultural heritage.
- To promote the creation of diverse business models that contribute to the expansion of the food industry overseas as well as the expansion of exports, the government will conduct studies on corporate needs and business feasibility, form corporate consortiums, and engage in bilateral policy dialogues in FY2020, among other initiatives.

3. Forestry reform

a) Develop the forestry and timber industries as growth industries

- To support scaling up sawmills and promote exports, the government will establish a diversified framework for methods of cooperation between forestry cooperatives in FY2021, including incorporation-type company split.
- Based on the revised Act Concerning Utilization of National Forest Land, pilot settings for timber harvesting rights will commence in FY2020 to meet new demand, and effort made to secure a stable business volume for forestry business operators. Alongside with that, market sounding will be carried out and a review conducted toward the setting of timber harvesting rights, including for large-scale projects.
- While gaining the cooperation of the business circles and others, the government will work toward increasing the use of wood, including cross-laminated timber (CLT) in non-residential buildings and medium- to high-rise buildings, with a focus on urban areas. And the government will work on standardization aimed at the utilization of building information modeling (BIM) for wooden architecture—which carries out the centralized management of 3D design information—among stakeholders by FY2024 in order to enhance the efficiency of design and procurement processes.
- With a view to the creation of a “forest service industry,” which aims to utilize forest spaces for health, tourism, education, and other purposes and improve the income for forestry business operators, the government will launch a platform involving public and private stakeholders in FY2020 and establish new frameworks and systems.

b) Promote smart forestry, etc. (forestry innovation)

By FY2024, the government will advance the following initiatives integrally, in order to create an environment for the steady and full-scale implementation of smart forestry and other initiatives on-site.

- Develop equipment and machinery that carry out forestry work such as tree felling and transportation, as well as afforestation, remotely and automatically. At the same time, establish safety guidelines for their practical application, and together with various forestry business operators including self-harvesting forestry businesses, transform the forestry into an attractive industry for youth and women.
- Select fast-growing trees and develop seed orchards/scion orchards, so as to establish a nationwide supply system for fast-growing trees and the seeds and seedlings of the “elite tree” to enable the completion of processes from afforestation to felling within one generation of forestry business operator.
- Establish, by 2021, forest cloud systems that enable the sharing of information pertaining to forests among local governments and private-sector businesses. Draw up standard specifications for ICT production management systems that enable data linkages with the forest cloud systems and promote their adoption by private-sector businesses. At the same time, accelerate initiatives to enable the sharing of data, such as data for demand and supply in the supply-chain, through the system.
- Produce case study collections on smart forestry, etc. and conduct training for faculty, with the aim of development a curriculum for smart forestry in all forestry universities.
- With a view to expanding opportunities for forestry business managers to learn about smart forestry technologies, engage in initiatives such as organizing briefing sessions and matching meetings at various places.
- Toward the model introduction of “smart” forestry across Japan, analyze and provide practical examples and present technical models, while also utilizing the fields of state-owned forests.
- Conduct training for forestry extension agents and facilitate the acquisition of knowledge and experience, with the aim of supporting consultation on “smart” forestry and relevant matters in all prefectures.

4. Fishery reform**a) Promote fishery policy reform, etc.**

- Based on the revised Fishery Act, the government will expand the target species of fish for total allowable catches (TAC) to 80% around 2023, on the basis of catch volume and with the basic principle of management targeted at the realization of maximum sustainable yield (MSY) by 2021.
- To promote the transition to an aquaculture industry that incorporates the needs of the market into the product, the government will advance the resolution of technical issues through demonstrations

and loan facilitation through business feasibility assessments, with the aim of creating a model management body for each type of aquaculture management body by FY2022.

- To speed up measures against fish diseases in the aquaculture industry, the government will put in place initiatives in FY2020 to build a “regular veterinarian” system, announce numerical targets for increasing the number of veterinarians who are knowledgeable about fish diseases and formulate guidelines for online medical consultations.
- To conserve the water environment of the Seto Inland Sea and nurture rich fishery resources, the government will introduce frameworks for nutrient salt management by 2021 based on new findings and consensus-building in the regions, advance efforts on elucidating the relationship between nutrient salts and fishery resources, and by FY2023, begin proposing, to coastal councils and other entities, management measures for the supply of nutrient salts.

b) Promote smart fishery, etc.

By FY2023, the government will advance the following initiatives integrally, in order to create an environment for the steady and full-scale implementation of smart fishery on-site.

- With the aim of expanding the target fish species for the evaluation of fishery resources to all useful fish species (about 200 species) by FY2023, as well as improving the precision of resource evaluation, make use of ICT to develop systems for collecting information on operations and fishing grounds environment from fishing and research vessels, collecting catch information from markets in the production areas, and preparing electronic catch reports on minister-controlled fisheries.
- Develop and demonstrate systems for predicting fishing and oceanographic conditions, with the aim of providing such information in real-time and to a high degree of precision to fishery operators in offshore and coastal areas.
- Expand the target seas for information predicting the occurrence of red tides, based on satellite data and buoy information, to enable the application of this information to aquaculture businesses in sea areas with a high incidence of red tide occurrence.
- Engage in the development and demonstration of technology toward the automation and labor saving of fishery work.
- With regard to smart fisheries, organize briefing sessions and forums for fishery and aquaculture operators, and conduct courses for almost all fishery-related educational institutions.
- Provide knowledge and knowhow to staff of fisheries experimental stations, with a view to supporting consultations on smart fishery at all fisheries experimental stations.
- Create model cases that make use of smart fishery, toward the model adoption of smart fishery across Japan.
- Utilize advanced technology such as ICT, and in cooperation with all stakeholders from production to distribution, processing, and sales, build excellent cases of fishery value-chains that automate

work, labor saving, and provide added value to products.

- By 2020, build and operate a Fishery Data Coordination Platform (provisional name) that supports the fishery and aquaculture industries as well as the creation of new businesses, based on the evaluation and management of fishery resources and data, and realize collaboration with other data platforms.

vi) Preventing diseases and the need for long-term nursing care

The citizens are increasingly recognizing the importance of health, which is the foundation for the establishment of a 100-year life society. In order to advance reforms toward the establishment of a social security system oriented to all generations, the government will promote initiatives on evidence-based prevention and health promotion.

1. Health promotion with a view to the 100-year life society, and promotion of disease/long-term nursing care prevention

a) Further strengthen incentives for disease prevention and health promotion

- With regard to a support system for insurers' efforts targeted at those covered by National Health Insurance, an impact analysis on the strengthening of incentives will be conducted in FY2020. At the same time, with regard to the respective evaluation indices and allocation of scores after FY2021, a review will be conducted on the expansion of performance indicators and the strengthening of allocation criteria modulation. The scores obtained by each insurer will also be published.
- As for the system that adds or subtracts support funding for latter-stage elderly corresponding to the status of prevention/health projects undertaken by health insurance societies and other organizations, an impact analysis on the effects of health businesses and incentive measures strengthened by a maximum of $\pm 10\%$ will be conducted in FY2020. On top of that, a review will be conducted on the expansion of performance indicators and the strengthening of allocation criteria modulation with regard to the target scope in adding or subtracting, the respective evaluation indices, and allocation of scores after FY2021. As for the adding or subtraction rate for latter-stage elderly support funding for the respective health insurance societies and other organizations in FY2020, a fresh review will also be conducted on the societies targeted for addition.
- With regard to the incentive measures for insurance premium rates for each prefectural branch, corresponding to the status of prevention/health projects in the Japan Health Insurance Association, a review will be conducted on the expansion of performance indicators and the strengthening of allocation criteria modulation, and a definite conclusion reached in FY2021.
- The government will strengthen initiatives for prevention and health projects under the Extended Associations of Medical Care System for the Latter-stage Elderly People. As for the special adjustment subsidies (incentive measure for insurers) that are allocated based on the status of prevention and health projects, measures to strengthen incentives will be considered, such as the

prioritizing and review of evaluation indicators based on the status of integrated implementation of health projects for the elderly and long-term nursing care prevention initiatives. A definite conclusion will be reached in FY2020.

- In reviewing the respective evaluation indices and allocation of scores, the appropriate indicators (such as the strengthening of allocation score modulation) are reviewed through the thorough functioning of the PDCA cycle, in order to ensure that prevention and health promotion initiatives are further strengthened with consideration given to the characteristics of insured parties under the respective medical insurance.

b) Strengthening initiatives that connect changes in individual behavior toward prevention and health promotion

- With a view to promoting the creation of a food environment that helps people to become healthy naturally, including those who are not interested in health, effort will be made to establish a cooperative system with various entities around autumn 2020, such as industry-academia-government partnerships and their communities. At the same time, a review will be advanced on comprehensive measures, including evidence-building for areas such as effective approaches to reducing salt intake, taking into consideration the possibilities of making it a commitment for the Nutrition for Growth Summit, and of international expansion to Asia and other regions.

c) Strengthening toward early detection of diseases

- To establish a framework for the early detection and treatment of cancer, and to achieve dramatic improvement in the 5-year survival rate, the government will promote the development of simple, minimally-invasive screening methods for intractable cancers, such as liquid biopsy and other methods based on blood or saliva, as well as the development of treatment methods. In addition, it will conduct an impact analysis on initiatives toward improving screening rate, such as through the application of the nudge theory. As for risk-based screening, based on conclusions obtained in FY2019, the government will promote the accumulation of scientific evidence that contributes to its realization.
- From the perspective of detecting cancers early, screening technologies that can easily, precisely, and quickly detect cancers with high incidence, such as breast cancer, esophageal cancer, and colorectal cancer, will be established urgently, and demonstration tests commenced in FY2020.
- To strengthen measures for dental diseases that are also related to overall health, such as periodontal disease, a review will be conducted on expanding the opportunities for dental checkups (screening) that are currently held every 10 years, based on the results of verification through projects for promoting dental health checkups. A conclusion will then be reached on the direction of reviews on the implementation methods for dental checkups (screening) by FY2021. Furthermore, while raising the consultation rate for dental checkups (screening), the government will put in place effective

initiatives to encourage people to undergo the necessary consultations based on the results of their health checkups (screening), further build evidence related to oral health and overall health and promote medical and dental collaboration.

d) Health promotion through cooperation between insurers and corporations, and promoting health management and health investment

- With regard to the health scoring report, in order to strengthen the approach to health insurance societies and business operators, reporting will be carried out in the business operator unit for health insurance societies and the Federation of National Public Service Personnel Mutual Aid Associations, in addition to the existing insurer unit, from FY2021.
- With a view to realizing the appropriate visualization and evaluation of the health management initiatives and results of corporations and other entities by internal and external parties, the government aims to compile, during FY2020, matters related to the approach to the disclosure of health management information that can be utilized in capital markets, based on the Guidelines for Administrative Accounting of Investment in Health and Productivity Management drawn up in June 2020 (decision by the Review Committee on Approaches to Making Investment in Health and Productivity Management Visible on June 12, 2020) and in anticipation of the introduction of incentive measures to further promote health investment by corporations, etc.
- With regard to “beyond2020 My Best Program,” an initiative triggered by the Tokyo Olympic and Paralympic Games (decision by the liaison/joint meetings of the relevant ministries and agencies on measures to create momentum through culture toward the Tokyo 2020 Olympic and Paralympic Games on December 21, 2018), the government will announce the results promptly after the conclusion of the games and promote health promotion among the citizens with a view to creating legacy.

e) Validation of the effects of prevention/health promotion through the use of data, etc., and promoting private-sector prevention and health services

- To bring about utilization in preventive health projects of insurers, local governments, and other entities, large-scale demonstrations will be launched successively from around summer 2020, in order to verify and build up evidence related to the health enhancement effects of prevention and health promotion through the use of data. Based on those results, the government will promote initiatives for appropriate prevention and health promotion by insurers and others.
- To advance the development of an environment that aims to build a distribution structure for health care services, while securing a certain level of quality, the government will support the establishment of voluntary guidelines within and across industries and realize use by 1,000 corporations/organizations by FY2025.

f) Further strengthening of incentives for the prevention of long-term nursing care

- As for the nursing care incentive subsidy for nursing insurance insurers and municipal governments (subsidy to promote the strengthening of insurers' functions, and subsidy to support the efforts of nursing insurance insurers), an impact analysis on the strengthening of incentives will be conducted in FY2020, while consideration will be given to a review on the expansion of the adoption of performance indicators and the strengthening of allocation criteria modulation, for the respective evaluation indices and allocation of scores, in FY2021.
- In reviewing the respective evaluation indices and allocation of scores, the government will thoroughly put the PDCA cycle into motion, such as by increasing places where the elderly can interact with others, boosting support for the elderly to take up employment or volunteer in nursing homes as "nursing assistants," utilizing points as incentives for individuals, and continuing with focused reviews on the integral implementation of nursing care prevention and health services from perspectives such as exercise, oral health, nutrition, and social participation. At the same time, the government will engage in the lateral roll-out of advanced, outstanding practices, and promote the utilization of private-sector services among other initiatives.
- With regard to health services for the elderly aged 75 and above, the government will apply insurers' incentive measures for medical treatment for the latter-stage elderly, and enhance close support including measures for the frail.
- With regard to the addition of nursing care remuneration for the maintenance or improvement of users' average daily life activities, the government will conduct a verification of effects based on evidence and put in place the necessary measures for the next revision of nursing care remuneration in FY2020, with a view to realizing support for independence and preventing the deterioration of independence.

g) Strengthening of comprehensive measures for dementia

- Based on the Framework for Promoting Dementia Care (decision by the Ministerial Council on the Promotion of Dementia Care Policies on June 18, 2019), the government will promote comprehensive dementia measures based on the pillars of "coexistence" and "prevention," and at the same time advance initiatives to realize a barrier-free approach to dementia in cooperation with the Japan Dementia Public-Private Council. With a view toward the establishment of dementia prevention methods, research and development efforts will be strengthened, such as the establishment of a system that can enable immediate response to drug trials by FY2021. The government also aims to establish, by FY2022, evaluation indicators and methods for prevention through public-private partnership in the field of dementia, and from FY2020, conduct demonstrations on products and services that are easy for dementia patients to use.

vii) Next-generation healthcare

The spread of the novel coronavirus disease has brought about renewed recognition of the importance of making testing and treatment widely available to those who need it, and of collecting and analyzing data quickly. Hence, the government will promote, with a greater sense of urgency and in the most optimal manner, individual policies in the fields of medical care and nursing care. This will be achieved by harnessing technological innovation and ensuring a high level of cost effectiveness, so as to promote health among the citizens, enhance the quality of medical care and nursing care as well as raise productivity, and bring about work style reforms on the ground.

1. Securing effective, efficient medical and nursing services that harness technological innovations

a) Promoting the active utilization of data that will serve as the foundation for the provision of health, medical, and nursing services

(Online verification of eligibility, etc.)

- The system for the online verification of eligibility will commence full-scale operation from March 2021. This system enables the personalization of the insurance identification number for medical insurance and makes it possible to use the “My Number” card as the health insurance certificate. For that reason, the government aims to steadily advance system development for medical institutions and pharmacies from August 2020 through the utilization of the Medical Informatization Support Fund and realize the adoption of the system by virtually all medical institutions and pharmacies by the end of March 2023.
- To improve the precision of the consolidation of medical and nursing care information on databases such as the National Database of Health Insurance Claims and Specific Health Checkups of Japan (NDB) and the Comprehensive Nursing Care Insurance Database (Nursing Care DB), the government aims to implement the necessary measures toward the enforcement of the Act on Partial Amendment of the Social Welfare Act and other laws⁵⁵, toward the realization of a regional cohesive society that incorporates contents to enable the utilization of the records of insurance identification numbers, such as the Social Insurance Medical Fee Payment Fund, as the foundation for the system for the online verification of eligibility, alongside with the provision of the information required for accurate consolidation while ensuring security. The government aims to commence operation from FY2021.

(Coordination and utilization of health and medical information in medical institutions, etc.)

- With regard to frameworks that enable medical institutions nationwide to verify patients’ health and

⁵⁵ Amendments to enable the utilization of the records of insurance identification numbers, such as the Social Insurance Medical Fee Payment Fund, alongside with the provision of the information required for accurate consolidation while ensuring security, will be enforced on a date stipulated by government ordinance, not exceeding 2 years from the date of promulgation (June 12, 2020).

medical information based on receipts, such as information on medicines and specific health checkup information, it will be possible to verify specific health checkup information from March 2021 and information on medicines from October 2021. Furthermore, the government will expand the scope of information, such as information pertaining surgeries, and make it possible to verify such data around the summer of 2022.

- Through the utilization of the Medical Informatization Support Fund and other sources, the government will reach a conclusion on concrete measures for promoting the standardization of electronic medical records based on the technological trends, as well as the introduction of electronic medical records including small- and medium-scale medical institutions, in FY2020.
- With regard to the electronification of prescriptions, alongside with disseminating the contents of guidelines revised in April 2020, the government will also begin work on creating the necessary environment for electronification in FY2020, and implement electronification from FY2022 based on the environment established.

(Coordination and utilization of medical and nursing care information)

- To promote coordination between medical care and nursing care through the use of ICT, the government will advance the production of standard specifications for sharing patients' medical and nursing care information upon their admission into and discharge from hospitals, between medical institutions and nursing homes. At the same time, it will review and reach a conclusion in FY2020 on the need for other coordination between medical and nursing care, as well as the potential for the use of ICT.

(Promotion of PHR)

- The government will continue to promote Personal Health Records (PHR). These enable individuals and their families to obtain, from a central source, their personal health checkup and prescription records, as well as facilitate improvements in their everyday life, medical consultation and treatment where necessary, and accurate communication in medical settings.
- With regard to the provision of personal data through the Myna Portal and other sources, the government will launch the provision of information related to health checkups for infants and toddlers, and other data, from June 2020. It also aims to commence providing information on specific health checkups from March 2021 and prescription information from October 2021. As for other health checkup and screening information, it aims to create an environment toward the realization of support for local governments, etc. and the establishment of the necessary laws based on the work schedule formulated in the summer of 2020, and to begin providing information in standardized, electronic formats around 2022.
- With regard to the utilization of PHR data by private-sector operators and other organizations, the government will come up with an approach on API coordination with Myna Portal and other systems, and on the establishment of the necessary rules for private-sector operators, with the aim of rolling

out the service around FY2020.

(Utilization of health, medical, and nursing care information as Big Data)

- The analysis of coordination between the NDB and Nursing DB will enter full-scale operation from October 2020, and will be available for utilization by administrative agencies, researchers, and private-sector operators.
- Based on the Healthcare and Medical Strategy (Cabinet decision on March 27, 2020) and under the Next Generation Medical Infrastructure Act, the government will promote understanding among citizens through publicity and awareness-raising programs, as well as promote the application of medical information, made anonymous, to research and development in the medical field by a wide range of entities.

b) Promotion of the use of technology, such as ICT, robots, and AI in medical and nursing care settings

(Promotion of telemedicine)

- In cooperation with the relevant academic societies and business operators, etc., the government will promote efforts to collect data related to the safety and effectiveness of online medical consultations, and to understand the situation in case studies. It will also verify temporary measures based on the spread of the novel coronavirus infectious disease, and based on the results, periodically review guidelines for the appropriate implementation of telemedicine.
- Toward the next revision of medical treatment fees, the government will survey and verify how widespread telemedicine is, and consider the addition of diseases for which safety and effectiveness have been verified to the scope of coverage by telemedicine systems. It will also verify temporary measures based on the spread of the novel coronavirus infectious disease, and based on the results, consider a review of online medical treatment fees. Furthermore, with regard to the methods for the implementation of telemedicine and the requirements for implementation systems, the government will conduct the necessary reviews toward the appropriate spread and promotion of telemedicine, based on the results of verification of temporary measures based on the spread of the novel coronavirus infectious disease.
- For telemedicine including online medical consultations, the government will conduct technological demonstrations based on the advancement of ICT as well as demonstrations with a view to the establishment of new models, and work to promote safe and effective telemedicine. It will promote the development and spread of a system that enables the verification of the health status of individuals over time, remotely and without face-to-face contact, as a system that supports telemedicine. Furthermore, to support difficult surgeries that can only be performed by doctors who are available remotely, the government will promote the development of high-performing, high-precision equipment, as well as the creation of a high-capacity, ultra-low-latency communications

environment based on the premise of using such equipment.

- With regard to online drug administration guidance, the government will conduct reviews, where necessary on the implementation status of online drug administration guidance under the Pharmaceutical and Medical Device Act enforced in September 2020, and on the status for temporary, special measures based on the recent spread of the novel coronavirus infectious disease. At the same time, it will also verify newly-established evaluation of online drug administration guidance based on the revision of medical treatment fees in FY2020.

(Realization of scientific nursing care)

- To bring about the realization of nursing care with scientifically-backed effectiveness of self-reliance support, the government will implement a full-scale analysis using information from databases that collect and analyze data, such as the status and contents of care of elderly persons, which commenced operation from FY2020. It will then advance its application to discussions on the next revision of nursing care fees and beyond, as well as the evaluation of nursing care services with proven effectiveness. With regard to the data acquired, initiatives will be promoted to contribute to the provision of such data to nursing homes, and to enhancing the quality of care such as through the formulation of best practices for nursing care services. Furthermore, a review will be conducted on the evaluation of outcomes for incentives—which promote measures such as support for the independence of the elderly and the prevention of the deterioration of independence—to work.

(Development and introduction of robots, sensors, etc.)

- In anticipation of the medium- to long-term vision that takes a view to 2040 and the realization of a society where people can enjoy healthy, worry-free lives until they are 100 years old, the government has decided on the targets for the Moonshot Research and Development program for the healthcare and medical fields early in FY2020, and will promote challenging research and development, as well as accelerate the prompt implementation of advanced technology in society. The government will also promote the development of evaluation methods to allow citizens to obtain information about the status of their own health.
- Toward the promotion of effective technology aimed at enhancing work efficiency in the nursing care sector, the government will build a platform for the development, demonstration, and popularization of nursing care robots in FY2020, and carry out the following: (a) Develop a model for the provision of care at trial demonstration facilities; (b) Conduct demonstrations in nursing care settings that are care provision models; (c) Promote and spread, nationwide, care provision models with verified effectiveness.
- Alongside with promoting nursing care robots through the utilization of the Fund for Medical and Long-Term Care as well as support for the adoption of ICT, the government will accumulate and analyze evidence data obtained through large-scale demonstrations in nursing care settings and demonstrations on the effectiveness of the introduction of nursing care robots, and apply this data to

the evaluation of the next nursing care fees revision. At the same time, it will also promote initiatives on the introduction of nursing care robots and ICT in the field of welfare for people with disabilities, based on the situation in the nursing care sector.

(Utilization of technology such as AI, etc.)

- To reduce the burden of medical practitioners and improve the quality of medical services, the government will build a platform for promoting the development and utilization of AI. Upon reaching a conclusion in FY2020 on reviews relating to the framework for the collection and utilization of independent data in initiatives to develop AI for supporting diagnostic imaging, from FY2021, the government will strengthen the development of early detection and diagnostic technologies that utilize AI, in cooperation with medical practitioners. Furthermore, with a view to resolving issues identified in the development of AI, the government aims to put in place initiatives based on the work schedule formulated in June 2020, and in partnership with medical institutions in Asia and other regions, expand AI technology developed in Japan overseas.

(Promotion of genomic medicine)

- The government will make use of all genomic information, etc. and continue to promote genomic medicine for cancers, intractable diseases, etc. From the perspective of significantly enhancing the precision of treatment for each individual and providing new treatment methods to patients for whom no treatment methods are available, the government will first advance precedence analysis based on the action plan for whole genomic analysis formulated in December last year. In the precedence analysis, the government will utilize the main biobank specimens and new specimens that will be provided in the future to conduct whole genomic analysis based upon a close examination of specimens that can be utilized for research, with close to a maximum of 100,000 cases of cancer and intractable diseases as the subject for analysis, by FY2023. For cancer, the scope covers cancers and intractable diseases with a high morbidity rate, rare cancers, hereditary cancers, and for intractable diseases, the scope covers single gene disorders, multifactorial diseases, and diseases that are difficult to diagnose.
- The government will organize interim points based on the progress status of precedence analysis, identify issues such as the direction of full-scale analysis, the stance on system development and cost burden, and ethical, legal and social issues, as well as establish systems that can execute full-scale analysis smoothly. At the same time, the government will build up whole genome information obtained from whole genomic analysis, etc. with clinical information, and establish systems that enable industry and academia stakeholders to apply a wide range of discovered drugs and treatment methods to analysis and utilization.

c) Organizational reform for medical and nursing care settings, and realizing large-scale, collaborative management

(Reducing paperwork, streamlining work processes, and utilizing diverse human resources)

- To promote work style reform for doctors and other medical practitioners, the government will promote management reform for medical institutions through means including promoting thorough labor management and task-shifting, and the lateral expansion of measures for utilizing ICT, which contributes to streamlining work processes in ways such as reducing working hours for doctors. In addition, the government will undertake a radical review of the medical information network that allows users to search for medical institutions, disseminate and raise awareness on the consultation hotline for emergencies, and strengthen initiatives that contribute to individual behavioral changes, such as the lateral expansion of advanced, outstanding practices.
- To reduce the burden on nursing care staff and provide high-quality nursing care services, the government will provide support for the promotion and informatization of nursing care robots by utilizing the Fund for Medical and Long-Term Care. When doing so, it will apply the Guidelines for raising productivity and disseminate them effectively to nursing care settings, with a view to realizing the integral promotion of initiatives to enhance the efficiency and productivity of nursing care settings.
 - From the perspective of maintaining and improving the quality of nursing care services, the government will promote the lateral expansion of pilot projects implemented in FY2019 as well as the convention of a prefectural version of the Conference on the Innovation of Nursing Care Settings, and build models for enhancing the efficiency of nursing care settings that are adapted to individual regions. It will also reflect the knowhow that has been accumulated into guidelines related to raising productivity, and strongly promote the lateral expansion of good practices.
 - From the perspective of work style reforms for nursing care settings, in order to implement efficient work management functions that enable diverse work styles, the government will strongly promote the development of Wi-Fi environments in nursing homes as well as the introduction of tablet devices in nursing care settings from FY2020. With a view toward the alignment and standardization of items related to efficient work management functions, the government will advance reviews by experts and reach a definite conclusion by FY2020.
- As for initiatives to reduce paperwork, in the nursing care sector, the government will consider the direction of reviews toward the establishment of more simplified, standardized formats for documents, as well as the utilization of ICT and other tools, in FY2020, based on initiatives implemented in FY2019. It will also put in place the necessary measures quickly in response to the conclusions on the respective initiatives. In the medical and welfare sectors as well, it will successively advance the reduction of the volume of paperwork and standardization, while taking into consideration the characteristics of each sector.
- By utilizing the Fund for Medical and Long-Term Care and providing support for the utilization of diverse human resources such as nursing care assistants, the government will put comprehensive

effort into securing nursing care personnel.

(Realizing large-scale management for social welfare corporations)

- To enable social welfare corporations with the desire to do so, to smoothly implement measures for increasing their scale and strengthening collaboration, the Guidelines for the Business Expansion of Social Welfare Corporations (provisional title) was formulated in FY2020, based on which effort will be made to raise awareness and disseminate good practices.

2. Development, commercialization, and international expansion of outstanding pharmaceuticals and medical equipment originating from Japan

a) Development and commercialization of outstanding pharmaceuticals and medical equipment originating from Japan

- Based on the Healthcare and Medical Strategy and other policies, the government will promote consistent research and development from groundwork to practical application, under “Integrated Projects” that are focused on themes such as modality that enables flexible and swift response to a wide range of diseases.
- Based on the Medical Engineering Collaboration Innovation Promotion Project established in FY2020 and other initiatives, the government will strengthen collaboration with academic associations, support for benefactors of young researchers, and support for venture businesses, as well as promote new entry into the medical equipment and healthcare service sectors. Furthermore, through the Healthcare Innovation Hub (InnoHub), the government will establish in FY2021 industry-academia-government networks within and outside Japan in the field of life sciences.

b) International expansion, etc.

- Under the Asia Health and Human Well-Being Initiative and Africa Health and Wellbeing Initiative, the government will promote the international expansion of Japan’s healthcare-related industries with a view to contributing to the achievement of Universal Health Coverage (UHC). In particular, in order to realize “smart healthcare” through the utilization of ICT in ways that are related to Japanese corporations, the government will engage in the development of soft infrastructure including measures against infectious diseases. In addition, alongside with the promotion of the pharmaceuticals and medical equipment industries, the government will further promote the harmonization of regulations for pharmaceuticals and medical equipment in Asia based on the implementation strategy for the Grand Design for Asian Pharmaceutical and Medical Device Regulatory Harmonization (decision by the Health and Medical Strategy Promotion on July 14, 2020), as well as the establishment of an international clinical trial system within and outside Japan toward the enhancement of a clinical development system.
- The government will integrally promote the international expansion of medical care centered around

Medical Excellence Japan (MEJ) and JETRO, inbound medical tourism through the Japan International Hospitals (JIH) system, and the provision of medical services in line with the Comprehensive Measures for Securing Appropriate Medical Care for Foreign Visitors to Japan, so as to enhance the international support capability of Japan's medical system.

- With regard to measures for infectious diseases, which pose an international threat, the government will strongly and urgently promote efforts to strengthen testing and treatment systems for the novel coronavirus infectious disease, development and dissemination of therapeutic drugs and vaccines, and strategic, international joint research. At the same time, it will also promote measures such as the strengthening of research capability and functions, including human resource development, through the creation of research hubs centered on Nagasaki University and the establishment of research bases in areas that are experiencing the outbreak of infectious diseases, as well as the strengthening of outbreak trend surveys, testing systems, and medical care systems in light of the approaching Tokyo Olympic and Paralympic Games.
- In anticipation of the “post-corona” era, the government will promote the international expansion of medical and healthcare products and services that will see high demand in various countries in the future. It will also implement measures such as the popularization of health management including initiatives for prevention and health promotion, the building of a foundation for a healthcare innovation network, and the establishment of a cooperative system with each country.
- Through international conferences and other means, the government aims to promote UHC and raise Japan's international standing in responding to an international infectious disease crisis, as well as strengthen cooperation with other countries through bilateral support and support to international health organizations such as the World Health Organization (WHO), the Global Fund, the Global Alliance for Vaccines and Immunization (GAVI), as well as the Global Health Innovative Technology Fund (GHIT Fund) and CEPO. In addition, from the perspective of infectious disease measures including zoonotic diseases, the government will consider the establishment of a global hub for attracting global human and financial technology through industry-academia-government collaboration, and review systems that can cope with emergency situations in the future. It will also promote AMR measures. Furthermore, the government will strengthen the development of human resources who can respond to international infectious diseases, as well as the dispatch human resources to international organizations.

viii) Utilization of sandbox systems

The demonstration system for new technologies, etc. based on the Act on Special Measures for Productivity Improvement (sandbox system for regulations) restricts the duration and participants for the demonstration of innovative technologies and business models such as AI, IoT, Big Data, and blockchain, and gains the consent of participants. By doing so, it permits the implementation of demonstrations without the application of existing regulations, utilizes information obtained through

the demonstrations, and realizes regulatory reforms and swift social implementation of new technologies.

From June 2018 to May 2020, 133 parties have been certified for 15 projects in fields such as Fintech, healthcare, mobility, IoT, and real estate.

(Certified demonstration plans)

- Demonstration of household equipment that carries out communications through high-speed PLC (power lines such as power sockets)
- Demonstration on recommendations to undergo online medical consultation for influenza, with the combined use of a diagnostic kit and videoconferencing
- Demonstration of a system that simultaneously fulfills the exchange of virtual currency and legal tender
- Demonstration on preventing the unauthorized opening of online accounts through identity theft
- Demonstration of a resource recycling system that captures waste deposition status through IoT sensors and carries out wide-area collection efficiently
- Demonstration of the monitoring of clinical data using blockchain technology
- Demonstration for the confirmation, through biometrics authentication, of pre-registered consent for emergency medical procedures
- Demonstration of P2P insurance, in which the policyholder shares the burden of paying for insurance premiums after an accident has occurred
- Demonstration on the electronification of document submission during the signing of real estate lease contracts
- Demonstration on the loan of camping cars as accommodation spaces instead of vehicles
- Demonstration of projects on the sharing of electric-powered kickboards (two projects)
- Demonstration on the driving of electric motorbikes that can be switched to manual mode in bicycle lanes
- Demonstration on P2P insurance that makes provision for individuals against small-sum risks with friends and others (implemented after the establishment of special measures for the Order for Enforcement of the Insurance Business Act)
- Demonstration of self-blood collection screening system to measure the degree of muscle fatigue, etc. of rugby players, etc.

1. Improvement of operation and follow-up after demonstrations

- Many of the demonstrations are carried out by venture companies that are less than 10 years old, and the certification of demonstration plans can also contribute to the realization of partnerships with large corporations or the procurement of large-scale funding. On the other hand, there are concerns of inadequate knowledge with regard to the legal aspects as well as the advisability of certification.

As a result, there are many business operators that do not even reach the stage of applying for the certification of demonstration plans. For this reason, the government will review and implement measures such as recruiting business operators to conduct demonstrations, upon sorting out matters such as the legal issues for conducting demonstrations in advance in fields with confirmed needs for the review of regulations and the implementation of demonstrations based on prior consultations.

- To date, 10 demonstration plans have been completed, and there are examples of cases where projects were commercialized based on the confirmation of compliance with existing regulations through the demonstration, as well as examples of cases where the competent minister reviewed regulations based on the results of the demonstration. As for other demonstrations, based on the provisions of the Act on Special Measures for Productivity Improvement, the competent ministers receive reports on the status and results of the demonstration, review the status of regulations on new technologies, etc., and implement legal measures to abolish or ease the necessary regulations based on the results of the review. Where necessary, the Innovative Business Activity Evaluation Committee requests for a report from the demonstration implementing entity and the competent minister, and follow-up on the demonstration project.

(Main demonstrations that consider the direction of regulations in the future)

- With regard to electric-powered kickboards, which are currently classified as motorized bicycles, a new project will be implemented to demonstrate its travelling areas and vehicle safety standards as a new means of mobility for the future, while paying full attention to ensuring the safety and comfort of various traffic entities including pedestrians. The demonstration will take into consideration international trends as well as demonstration tests based on the sandbox system for regulations implemented in FY2019. Furthermore, based on the results of the new project, a review will be conducted on matters such as the requirements for drivers, measures to ensure safety, and traffic rules in zones marked out for cars. It will also include consideration of the need for a review of the system. In particular, a conclusion will be reached in the first half of 2021 on special measures for requirements for drivers, based on the National Strategic Special Zone Act.
- The clarification of interpretation and other necessary measures will be implemented to clarify, beforehand, with clinical trial sponsors and others, that source document verification (SDV) is not required on-site to verify consistency when utilizing blockchain technology to ensure consistency between clinical trial data and the source data.

2. Reviews on continuation and expansion of system

- The Act on Special Measures for Productivity Improvement aims to promote innovative business activities, etc. and raise productivity over the short-term in the three-year period until the end of FY2020, which has been designated as the period for productivity revolution and intensive investment. It will be abolished within 3 years from the date of enforcement (June 6, 2018). Going

forward, a review will be conducted on matters including the continuation and expansion of the system based on the track record for the utilization of the sandbox system for regulations, issues, and need for review of regulations, and the necessary measures will be implemented based on the results of the review.

ix) Tourism, sports, culture and arts

1. Realization of Japan as a tourism-oriented country

Due to the impact of the novel coronavirus infectious disease, tourism demand has fallen significantly and seriously affected not only the travel and accommodations industries, but also a wide range of industries across Japan including local transportation, food and beverage, and merchandise sales.

Such tourism-related industries are an important foundation for Japan to subsist as a tourism-oriented country. To ensure that tourism infrastructure such as accommodation facilities are not damaged, the maintenance of employment and continuation of businesses will first be addressed as the top priorities. To that end, the government will implement support measures such as the Subsidy Program for Sustaining Businesses, effectively interest-free and unsecured loans, and the Employment Adjustment Subsidy. Furthermore, in addition to encouraging core accommodation facilities with the motivation to attract domestic and foreign tourists, to renovate their facilities and review the contents of their management, the necessary measures will also be put in place to secure diverse funding.

As a part of these efforts, while carefully assessing the situation of infections, the government will work to restore domestic tourism while strongly stimulating tourism demand and levelling demand, through means such as launching the Go to Travel program, providing discounts on travel products, and issuing coupons that can be used at travel destinations widely across regions.

Taking this opportunity, the government will also encourage to spread new travels styles that are safer and more comfortable, and which are compatible with work style reform such as “workation,” “bleisure,” and the use of satellite offices.

Since the inauguration of the Abe administration, foreign tourists to Japan have been contributing to the local economy, with their numbers increasing by about four times to 32 million and the value of their spending reaching about 5 trillion yen. Inbound tourism continues to hold great potential in the future, and the target of 60 million inbound tourists by 2030 is a fully achievable one. For that reason, based on the Tourism Vision to Support the Future of Japan (formulated by the Council for the Development of a Tourism Vision to Support the Future of Japan on March 30, 2016) and the Tourism Vision Realization Program 2020 (decision by the Council on the Promotion of Japan as a Tourism-Oriented Country on July 14, 2020), the public and private sectors will work as one to advance initiatives for achieving the target of 60 million foreign tourists to Japan by 2030, and to

realize the vision of becoming a tourism-oriented country.

To date, Japan has been advancing initiatives including the improvement of entry points at airports and CIQ, improving the reception environment, such as multilingual signages and announcements, so that foreign tourists can enjoy stress-free sightseeing, and the development of new contents for foreign tourists, including snow resorts, cultural facilities, National Parks, countrysidestays, and cruises. By making use of the time until movement of people from foreign countries are resumed, these measures will strategically be advanced in each region. To that end, in addition to promoting initiatives to improve the experience at destinations, such as by enhancing foreigner hosting capability and enriching hands-on activities, the government will also advance support for inbound tourism all at once, such as by utilizing interpreter-guides and effectively maintaining multilingual notation and signboards. Furthermore, the government will also strategically promote the development of facilities and creation of contents to support travelers seeking quality service.

a) Recovery of domestic tourism demand, and strengthening of the constitution of tourism-related industries

- The government will establish a foundation for shifting from a “defensive” stance to an “offensive” one in order to restore tourism demand. First, the government will promote the thorough implementation of guidelines to prevent the spread of infections, drawn up by tourism-related business operators such as accommodations and travel operators, chartered bus operators, etc., to bring about the realization of safe and secure travel. At the same time, it will ensure the dissemination of tips that travelers themselves should take note of in order to prevent infection.
- To maintain and enhance the earning power of accommodation facilities as a response to the “new normal for everyday life,” the government will utilize a wide range of policy tools for motivated accommodation facilities, such as the deployment of advisers and investment or loans from government-affiliated agencies and implement initiatives in an integral manner to increase the added value and raise productivity corresponding to the unique circumstances of each accommodation facility. These initiatives include measures to prevent the spread of infections, development of new businesses, enhancing efficiency of management, utilization of foreign human resources, and renovations. In addition, it will also dispatch lecturers to strengthen the ability to support inbound tourism.
- With a view to realizing the complete regeneration of all sightseeing spots, the government will separate ownership and management and attract investment, so as to eliminate obstacles to fresh investment caused by factors such as the deterioration of accommodation facilities. In addition, the government will review frameworks for entrusting management to motivated managers, with the aim of reaching a conclusion in the early part of FY2020.
- In addition to supporting initiatives for improving the reception environment for foreign tourists at sightseeing spots and in public transport, the government will also promote infectious disease

counter measures in tourist facilities.

- While assessing the status of novel coronavirus infections, the government will implement the “Go to Travel” campaign. In implementing the campaign, the government will put in place thorough measures to prevent the spread of infections while providing discounts for accommodations and day trip travel products. In addition, to strongly stimulate tourism demand, it will issue coupons that can be used widely across various regions, at local souvenir shops, restaurants, tourist facilities, and transportation. In such cases, in addition to small- and medium-sized travel companies in the local regions, local hotels and inns will also be eligible for support when selling products directly.
- Taking into consideration that some schools have reduced the duration of summer vacation in FY2020, taking leave during off-season by the people will be promoted in order to avoid a concentration of tourism demand.
- Taking the novel coronavirus pandemic as an opportunity to move away from the conventional travel style of concentrated travel at specific locations in specific periods of the year, effort will be made to spread new travel styles that are safer and more comfortable, as well as compatible with work style reform such as “workation,” “bleisure,” and the use of satellite offices. These will be reflected in policy papers such as the Tourism Nation Promotion Basic Plan, which is scheduled to be revised within this fiscal year.
- Through support for the creation and commercialization of tourism contents at destinations in cooperation with external corporations and experts, as a part of efforts to refine local tourism resources into highly attractive products, and the creation of contents based on the Japan Cultural Expo, as well as the refining and utilization of various cultural and natural tourism resources that each region takes pride in, and the promotion of “workations” at National Parks and other such spots, the government aims to increase the added value of sightseeing spots and promote the diversification of the tourist base, so as to promote domestic travel.
- While fully assessing the situation of novel coronavirus infections in each country and region, the government will successively start promoting travel to Japan in countries in which it is appropriate to do so.

b) Measures for the continued promotion of inbound tourism

Alongside with continued, strategic efforts to improve existing reception environment and creation of new contents, following measures will be implemented.

- The government will strategically advance the development of facilities and creation of contents for tourists seeking high-quality service. Toward the establishment of about 50 world-class accommodation facilities, the government will engage in human resource development and other initiatives, and provide financial support triggered by fiscal investment and loans where necessary.
- Alongside with advancing cooperation with regional stakeholders under the form of destination marketing/management organizations, starting from FY2020, the government will match such

regions with diverse venture businesses that have knowledge of the development of products and services that can meet the needs of foreigners, and of market development, and implement initiatives from FY2020 to secure sales channels overseas.

- The government will commence support from FY2020 for the creation of an environment to utilize airports, railway stations, and “Michi-no-Eki” roadside stations as sales bases for travel products, with a view to promoting the purchase of travel products during the course of a journey.
- The government will commence support from FY2020 for the creation of an environment to utilize airports, railway stations, and “Michi-no-eki” roadside stations as sales bases for travel products, with a view to promoting the purchase of travel products during the course of a journey.
- To realize the highest standards of adventure tourism in Asia, effort will be made to raise the service standards for tour products and to promote the nurturing of tour guides. To that end, in FY2020, the government will provide support for tour product development initiatives in cooperation with destination marketing/management organizations.
- To transform National Parks etc. into the main sightseeing destination, the government will put particular effort in FY2020 into strengthening landscape improvements and attracting private investment through the creation of contents leveraged by charm of nature and the removal of abandoned buildings, as well as promote efforts to attract visitors.
- The government will encourage the investment in snow resorts through support to improve the arrival environment, such as the creation of contents for **après-ski**, and to foster a sense of unity among the regions through the issuance of lift tickets commonly used in a certain region as well as financial support from government-affiliated financial institutions that will stimulate investment and loans. It will also establish internationally competitive snow resorts in 10 to 15 locations nationwide. .
- To promote the development of contents that combine local culture with sports, such as budo (martial arts) tourism, the government will implement model initiatives in six regions nationwide in FY2020.
- The government will work to create an environment that allows tourists to once again enjoy cruises with peace of mind, including by formulating guidelines for securing the safety of cruise ships and the host port, in FY2020.
- The government will support initiatives toward creating a showcase of tourism nation in the cities of Kushiro, Kanazawa, and Nagasaki. It will also horizontally expand the expertise of each city to other cities by FY2021, while promoting their voluntary initiatives through the dialogue with local tourism stakeholders.
- In order to attract inbound tourists, the government will promote mutual exchanges between the Host Towns of all over the country including those of a Harmonious and Inclusive Society, and their partner countries, and work on sharing the charms of Japanese regional areas with the world.
- In order to attract visitors from a wide range of regions, the government will expand its focused promotion into wider markets, and roll out global campaign methods used in Europe, America, and Australia to Asia.

2. Carving out a future for the sports industry

Due to the impact of the novel coronavirus pandemic, sporting activities have had no choice but to scale down drastically. Taking into account the gradual improvement in the pandemic situation going forward, the government will gradually allow the resumption and full-scale implementation of sporting activities, while putting its best efforts into preventing infections. At the same time, it will steadily promote fundamental initiatives such as the strengthening of management capability of sporting organizations as well as various initiatives at the regional level, such as sports tourism. In particular, it will engage in the effective and efficient implementation of a wide range of relevant measures while strengthening Japan's ability to compete in international games, in view of the approaching Tokyo Olympic and Paralympic Games.

a) Establishment of foundation for developing sports as a growth industry

- Based on the Governance Code for National Sport Federation Members formulated in FY2019, the necessary advice is given to umbrella organizations based on reports on the results of conformity assessments conducted by umbrella organizations (Japan Sport Association, Japanese Olympic Committee, and Japanese Para-sports Association) starting from FY2020. In addition to providing continued support for the medium- to long-term popularization of National Sports Federations and formulation of marketing strategies, as well as the provision of the necessary advice based upon an understanding of the issues related to formulation and implementation, support will also be provided for the formulation and implementation of project plans, including the achievement targets for model initiatives in the next 4 years. On top of creating checklists to encourage National Sports Federations to put in place improvements voluntarily, reviews and analysis will also commence in FY2020 on issues related to the integration and streamlining of common work processes between the National Sports Federations.
- To nurture sports managers, the government will promote initiatives such as the development of practical curriculum that take a view to the introduction of MBA courses. To promote the inflow and retention of external human resources into sporting organizations, the government will carry out matching activities as well as provide advice based on an analysis of the issues.
- With regard to the Sports Open Innovation Platform (SOIP), which aims to create new projects through the merging of the sporting sector with other industries, in addition to promoting personnel exchanges within and outside Japan, the government will also host conferences to disseminate information on initiatives to address social issues and the latest SOIP trends, as well as implement acceleration programs to support the development of projects. Furthermore, the government will also host the Sports Open Innovation Contest (provisional title) to promote the further development of projects through the dissemination of advanced practices and utilization of external resources.

b) Regional revitalization centered around sports

- For projects selected as “stadiums/arenas that serves as exchange hubs for diverse generations to gather,” focused support is provided by the relevant ministries and agencies. The government will also promote development of regional SOIP to encourage regional professional sporting teams and corporations, universities, etc. to cooperate and work on urban development and the creation of high value-added services.
- The government will advance, in collaboration with the relevant stakeholders including local governments, the development of an “Index on the Ease of Doing Sports” (provisional title) in FY2020 and awareness-raising aimed at raising the implementation rate of sports across Japan through the application of this index, as well as the securing and enrichment of regional sports environments by promoting the effective use of school physical education facilities through public-private partnership. In addition, the government will advance visualization aimed at centralizing information on regional sports resources through ICT, as well as utilization through matching with users.
- Taking the opportunity of events such as the Tokyo Olympic and Paralympic Games, support will be provided toward initiatives to develop lateral public-private partnership organizations that are engaged in Host Town initiatives, establish consultation systems to provide close support for the development of sports- and health-oriented towns by local governments and promote the establishment of a collaborative system between sports administration and medical care to encourage residents, including the disabled, to engage in exercise and sports habitually.
- While strengthening cooperation with the relevant ministries and agencies, the government will steadily promote sports tourism initiatives, such as the convention of regional sports consortiums, through efforts such as the lateral dissemination of issues and cases to date. With regard to “budo (martial arts) tourism,” the government will work on initiatives such as the development of networks that involve private-sector organizations, with a focus on the national organization that will be launched in FY2020.

3. Economic revitalization that leverages on cultural and arts resources

a) Promotion of the Basic Plan on the Promotion of Culture and the Arts, and the Cultural Economy Strategy

- While respecting the unique significance of culture and arts, the government will accelerate building of positive economic cycles through culture and arts.
- By supporting initiatives to nurture artists and other human resources in the field, secure opportunities for performances, strengthen foundations for sustained activities, and gain viewers through the use of ICT, the government will establish the foundations necessary for the continued creation, development, and succession of culture and arts, as well as the recovery of the sector as things gradually return to their normal situation, so as to keep culture alive and give hope to the people even

with the spread of the novel coronavirus infection.

- While assessing the situation of the novel coronavirus pandemic, the government will implement the “Go to Event” (events and entertainment) project. In implementing this campaign, the government will put in place thorough measures to prevent the spread of infection, while strongly stimulating event demand by providing coupons and ticket discounts via ticketing agents, to consumers who purchase event and entertainment tickets during the campaign period. In doing so, the government will promote support for the implementation of new business methods, including the distribution of live events carried out without an audience.
- While putting in place thorough measures to prevent the spread of infection, the government will promote the convention of large-scale events including the use of convention halls and other venues.
- The government will advance the implementation of the Japan Cultural Expo, which is a large-scale program embodying the beauty of Japan, and other initiatives based on the Basic Plan for the Promotion of the Implementation of International Cultural Exchange Festivals (Cabinet decision on March 29, 2009), to establish a national brand.
- Through the collaborative meeting that provides a space for dialogue between the arts and culture sector, the business circles, and the government, effort will be made to promote the reform of corporate culture through the use of arts and cultural resources and the relevant technologies, as well as the creation of innovation. At the same time, the government will invest in arts and culture, and build a virtuous cycle for economic growth, such as by conducting a review in FY2020 toward the establishment of a framework for promoting the effective use of artworks held by corporations and other entities.
- At national museums such as the Tokyo National Museum, the government will disseminate the appeal of Japanese culture that harnesses advanced technology and promote the utilization of museum collections, work on improving the qualifications of museum curators, and at the same time, review frameworks for the lateral roll-out of the results of these initiatives. At the same time, it will also steadily advance initiatives to promote understanding of the Ainu culture at the National Ainu Museum that opened in 2020. With regard to the Japan Arts Council, alongside with advancing reviews in FY2020 toward strengthening the Arts Council’s functions for supporting cultural and arts organizations, the government will also strengthen its functions as a national center by advancing reviews on the re-structuring of the National Theater of Japan and other matters.
- To promote the creation and dissemination of Japan’s outstanding media arts, such as manga, anime, and games, the government will convene media art festivals, support the creative activities of young creators, and spread such arts overseas in cooperation with global festivals. It will also establish information hubs to archive works.

b) Regional revitalization centered on cultural and arts resources

- Alongside with the nationwide expansion of cultural programs such as the Japan Cultural Expo and beyond2020 Program, the government will also strengthen the dissemination of Japanese culture through cultural and arts programs and international cultural exchange, including initiatives to enhance the brand power of diverse Japanese food and food culture, and to disseminate information in Japan and abroad in cooperation with the relevant ministries and agencies as well as the Japan National Tourism Organization (JNTO).
- Through the application of laws related to the promotion of international exchange that utilizes the legacy of the International Council of Museums (ICOM) Kyoto 2019, which set out the relationship between museums and the Sustainable Development Goals (SDGs), and the promotion of regional cultural tourism centered on cultural tourism hub facilities (enforced on May 2, 2020), the government will enhance the appeal of cultural resources, enhance the functions of cultural facilities, and promote cultural tourism through the united efforts of regions.
- With regard to regional cultural resources, the government will enhance the appeal of Japanese heritage as cultural tourism resources, and promote the creation of a strategic preservation and utilization cycle for cultural assets that have a core presence in the region. Furthermore, in order to ensure the reliable succession of cultural assets to the next generation, the government will implement initiatives such as understanding the management situation, carrying out repairs at appropriate intervals, putting in place disaster prevention and crime prevention measures such as systematic fire protection, securing repair materials, strengthening the dissemination of traditional skills, and the succession of regional cultural heritage such as traditional events.
- In addition to promoting arts education in schools and local communities, the government will further enrich appreciation classes conducted by cultural and arts organizations that have been impacted by the novel coronavirus pandemic, as well as hands-on cultural and arts activities for children. In addition, based on the Basic Plan for the Promotion of Cultural and Arts Activities for Disabled Persons (decision on March 29, 2019), the government will promote the creation of an environment to support cultural and arts activities for the disabled and to enable them to get to know about culture and arts continuously, by FY2022.

x) Taking in Overseas Growing Markets

To ensure the sustainable growth of the Japanese economy even with the global impact of the novel coronavirus pandemic, there is a need for the government to capture overseas demand continuously once again after the situation has improved, and to put in place initiatives toward the gradual resumption of the flow of people with other countries, beginning with business persons and including the handling of persons re-entering Japan. In anticipation of harsh international competition in the “post-corona” era and amidst the reorganization and diversification of the supply-

chain, the government will provide support for the development of overseas markets and the improvement of business environments, as well as the overseas expansion of Japanese corporations including small- and medium-sized enterprises. The government will also build a resilient Japanese economy and social structure from the perspective of economic security.

Global moves toward the achievement of the Sustainable Development Goals (SDGs) also present new business opportunities. With the launch of the “Decade of Action,” the government will ride on the momentum of events such as the Asia-Pacific Water Summit, the Tokyo Nutrition for Growth Summit, and the Tokyo Olympic and Paralympic Games, which are all scheduled to be held in 2021, and share as well as expand Society 5.0 and Japan’s SDGs Model with the international community.

Even as the global economy is being subject to the severe impact of the novel coronavirus pandemic, by engaging in economic partnership negotiations and other initiatives to avoid succumbing to protectionism, the government aims to continue building a free and fair economic order based on rules and bring about the sustainable growth of the global economy.

1. Global expansion of Society 5.0 and achieving SDGs

a) Support for implementation by multiple stakeholders

- The government will provide support for the Global Technology Governance Summit (GTGS), which will be convened in Japan in April 2021 by the World Economic Forum and the World Economic Forum’s Centre for the Fourth Industrial Revolution, in which programs focusing on healthcare, smart cities and mobility led by the private sector, DFFT, and initiatives toward the realization of governance innovation based on these programs will be implemented. The government will also apply the opportunity to disseminate the results of Japan’s measures to support the respective programs.
- To execute the “Decade of Action,” which was agreed upon at the UN SDGs Summit last year, initiatives will be promoted through public-private partnership, including efforts to encourage Japanese corporations to collaborate with international organizations based on TICAD7 and Mekong-Japan Initiative for SDGs as models, in key SDGs agendas in which Japan has strengths, such as health and nutrition, marine plastic debris, climate change, and disaster risk reduction.

b) Accelerating “STI for SDGs”

- To promote the Science, Technology and Innovation (STI) for implementing the SDGs (STI for SDGs), the government will gather information on current social issues and implement other initiatives in cooperation with international organizations such as the World Bank and UN Development Programme (UNDP). In particular, Japan will provide support for the formulation and execution of the STI for SDGs Roadmaps of India and Kenya.
- With regard to platforms for project creation as well as matching of seeds and needs for resolving

issues, the government will conduct trials toward the resolution of individual SDGs issues in developing countries, and further improve the said platforms in cooperation with stakeholders while bearing in mind the autonomous operation of the platforms by private sector entities in the future.

2. Supporting overseas business expansion of Japanese companies

a) Expansion of exporting infrastructure systems

Alongside with promoting, through public-private partnership, the priority measures set out in the Infrastructure System Export Strategy (FY2020 revision) (decided by the Management Council for Infrastructure Strategy on July 9, 2020), the government will decide on a new strategy within 2020 aimed at strengthening the capacity to respond to rapidly changing business models, in anticipation of medium- to long-term overseas expansion of infrastructure in the future, while also taking into consideration response to diplomatic initiatives such as the “Free and Open Indo-Pacific”, as well as the potential for social change in the aftermath of the spread of novel coronavirus infections.

(Promotion and implementation of the “quality infrastructure”)

- To promote and put into practice the “G20 Principles for Quality Infrastructure Investment”, which include openness, transparency, economic efficiency, and debt sustainability, the government will establish quality projects through public financial institutions and multilateral development banks, develop debt management capacity, promote evaluation index for life cycle costs, and advance initiatives that place the emphasis on transparency and sustainability in aspects such as governance.
- In addition to the utilization of top-down sales and foreign diplomatic missions, the government will also take advantage of visits to Japan by leading figures to promote understanding of “quality infrastructure” by partner countries.

(Strengthening competitiveness and response capacity in new business models)

- In anticipation of the rapid progress of “smart” developments that harness cutting-edge technology such as digital technologies, the government will promote the overseas expansion of “smart cities”, apply Japan’s problem-solving ability in fields such as mobility, public safety, energy, environment, disaster risk reduction, and medicine and healthcare, attract ESG investment, and contribute to the achievement of the SDGs, by utilizing the outcomes of Society 5.0 and demonstrations and studies in Japan and abroad.
- With regard to 5G technology, which is the basis for the use of digital technology, and the optical submarine cables that support 5G technology, the public and private sectors will work together to expand overseas the result of domestic application, while giving consideration to safety and security.
- With regard to PPP, through surveys on the systems and issues of the partner country and application of knowledge in Japan, Japan will proactively propose the establishment of local systems and support for ordering, risk reduction, business schemes that contribute to securing profitability, and financial support, and promote the entry of Japanese corporations.

- By strengthening cooperation between the relevant ministries and agencies, institutions, and corporations, including the task force for each sector, the government will promote the establishment of cross-sectoral projects and enhance proposal capacity.
- To promote cooperation between Japanese corporations and local partners, as well as the smooth operation of joint projects, Japan will strengthen the support by using public financing, public-private funds, and M&A through the utilization of tax systems to promote open innovation, in addition to human resource development efforts. In order to expand opportunities for involvement in businesses, including start-up companies, the government will promote the utilization of independent administrative institutions, etc. as well as partnerships with public organizations of the partner country and multilateral development banks.
- From the perspective of further mobilizing private funds, the government will review support for public financing and public-private funds, including swift decisions for support, greater flexibility in risk-taking, reviews and improvement of operations toward the establishment of prompt screening processes that are transparent and predictable, and expanded targets for support as well as strengthening of organizational systems. Furthermore, in order to promote the creation of projects corresponding to local needs and continuous involvement, the government will move to “package” together technology transfer with human resource development.
- The government will strategically promote the establishment of legal systems and regulations in partner countries, as well as the international standardization of fields that Japan has an edge in and fields with future potential, such as disaster risk reduction and digital technology.

b) Establishment of a rule-based, free and fair economic order

(Reform of the World Trade Organization (WTO))

- In response to the spread of novel coronavirus infections, the government will work in cooperation with other concerned countries on WTO reforms, including the establishment of rules in new fields that contribute to the revitalization of international trade and investment, such as e-commerce and investment facilitation, reform of dispute settlement procedures, and reform of the WTO including strengthening of reporting and enhancement of transparency. The aim of these efforts is to build a risk-resilient international economic structure, such as the strengthening of resilience of the global supply-chain, and to ensure proactive and stable overseas expansion by Japanese corporations.

(Economic partnership negotiations)

- With the aim of signing the Regional Comprehensive Economic Partnership (RCEP) agreement, which is currently being negotiated, within the year and realizing its early entering into force, the government will work quickly to build a Japan-UK economic partnership. It will promote, strategically and with a sense of urgency, other economic partnership negotiations including the Japan-Turkey EPA and Japan-China-Republic of Korea FTA. In addition, it will also advance

discussions on increasing the number of countries and areas participating in the TPP11. It will also promote the utilization of EPA in Japan.

(Investment-related agreements)

- While aiming for the early conclusion of quality agreement on investment-related agreements that are under negotiation, the government will continue to actively advance negotiations on investment-related agreements with countries that are not yet parties to such agreements with Japan, such as Central Asia, Latin America, and Africa, while at the same time responding to concrete needs of business circles and conditions in the partner countries.

c) Support of the overseas business expansion of medium-sized enterprises and SMEs

While continuing with measures on the overseas business expansion of medium-sized enterprises and SMEs, the government will advance reviews on new KPI at an early stage and reach a conclusion in FY2020.

(Market development support, human resources and financial support)

- The government will strengthen support from the formulation of plans to the completion of business negotiations and commercialization, with a focus on the “Consortium for New Export Nations” and “Support Platform for Overseas Expansion by SMEs”. It will strive to strengthen corporate support capacity through mutual understanding of supporting organizations of the consortium across Japan, uncover micro, small and medium-sized enterprises in the regions, and implement effective and efficient support to such companies.
- Through the “Japan Mall” at major EC sites overseas setting up by JETRO, the government has commenced cooperation with EC sites that handle BtoB products. It will also promote the utilization of private-sector services such as overseas crowdfunding and EC sites, and experts who are familiar with the local conditions of the target regions for overseas business expansion.
- The government aims to recruit as well as support new business model demonstration projects by private-sector business operators that aim to expand exports autonomously by micro, small and medium-sized enterprises in the regions, and which support such initiatives.
- With the aim of establishing, nationwide, relearning frameworks that enable SME managers to systematically acquire the requisite management skills and approaches and knowhow for internationalization, the government will engage in reviews with experts with a view to establishing concrete systems by FY2021.

(Support for overseas expansion)

- Based on discussions conducted in the Japan Business Council for Africa (JBCA) (launched in June 2019), and in close cooperation with JICA, JETRO, and private corporations, the government will strengthen overseas expansion to regions including Africa, while also utilizing ODA.
- By expanding the subjects for reinsurance underwriting for NEXI based on the revised Act for the Enforcement of the Trade Insurance and Investment Act, the government will encourage insurance

companies from the private sector to enter new insurance service sectors related to overseas investment, as well as promote overseas expansion by micro, small and medium-sized enterprises across Japan.

- Toward the revitalization of international arbitration, the government will actively utilize exclusive arbitration facilities, while striving to disseminate externally the revised Act on Special Measures concerning the Handling of Legal Services by Foreign Lawyers⁵⁶. At the same time, it will accelerate the review of revisions to arbitration-related legal systems.

3. Measures to make use of Japan's charm

a) Promotion of Foreign Direct Investment

- In addition to deciding on the policies for formulating the Medium and Long-term Strategy for Promoting Foreign Direct Investment in Japan 2021, the government will formulate the strategy including KPIs for the next term, by the start of FY2021.
- The government will build the Open Innovation Platform in FY2020 and attract overseas start-up companies in the digital sector and other fields. Furthermore, it will promote the matching of regional micro, small and medium-sized enterprises with foreign companies to bring about third-party succession and partnerships, as well as M&A.
- With regard to Regional Business Conference, the government will specify priority areas that correspond with the potential of each region, and convene tour-based conferences that visit multiple local governments based on the respective themes.
- With a view to the domestic expansion of business by Asian DX corporations, the government will promote cooperation between Japanese corporations and such corporations, establish the DX Platform (DXPF), and provide support for matching. It will also compile, in FY2020, best practices for outward investment methods by Japanese corporations.
- The government aims to convene the Japan Business Conference in FY2021.
- The government will work to speed up the translation of laws and regulations into foreign languages (including the utilization of machine translation), and strengthen the functions of websites for the publication of translated laws and regulations.

b) Cool Japan

- Through the steady implementation of economic policies, the government will put effort into ensuring the continued survival of “Cool Japan” sectors (“Cool Japan” will be referred to as “CJ”

⁵⁶ The establishment of provisions for representation regarding procedures in international arbitration cases and international mediation cases, and the easing of requirements for professional experience, will be enforced on a date three months from the date of promulgation (May 29, 2020). The establishment of joint corporation systems for lawyers and foreign lawyers registered in Japan will be enforced on a date stipulated by government ordinance, not exceeding 2 years and six months from the date of promulgation.

hereafter) that have been severely impacted by the novel coronavirus pandemic, such as restaurant business, tourism, culture and arts, and event and entertainment. At the same time, it will survey and analyze the impact of the novel coronavirus pandemic on aspects of society and human behavior and rebuild the CJ Strategy.

- In promoting the CJ Strategy (decided by the Intellectual Property Strategy Headquarters on September 3, 2019), the relevant ministries and agencies will cooperate through the CJ Strategy Council and effectively utilize existing measures, while paying attention to ensuring flexibility, global perspectives, securing sustainability, and strengthening publicity, to create and promote best practices in specific areas such as food, culture, national parks, nishikigoi (colored carp), and shinise (long-established businesses)..
- To apply Japan's appeal to promoting exports and inbound tourism, the government will utilize the overseas bases of organizations such as foreign diplomatic missions, Japan House, the Japan Foundation, and JETRO, projects such as the Japan Cultural Expo, and funds provided by the CJ Fund.
- Toward the expansion of export of liquors produced in Japan, the government will promote branding including the evaluation of cultural value and the application of the geographical indication (GI) system, provide support for market development, carry out international promotions, and provide technological support for the development of new products. In addition, it will also promote brewery tourism with a view to realizing synergistic effect with inbound tourism. Surveys will be launched in FY2020 toward the registration of Japanese sake as a UNESCO Intangible Cultural Heritage.
- To enhance the value of corporate brands of small and medium-sized enterprises, the government will promote publicity initiatives that make use of films with a narrative, and create new content distribution markets. In addition, from the perspectives of developing overseas markets such as content-related industries, as well as strengthening the communicative potential of regional contents to trigger market development for local industries and expand inbound tourism, the government will provide support for the convention of international trade fairs and the overseas expansion of broadcasting contents. Furthermore, in order to help content-related industries make the shift toward a sustainable industry structure, the government will consider building an autonomous framework in the industry with a view to optimizing transactions related to production and enhancing the employment environment.
- The government will formulate guidelines for location shoots and filming summarizing licensing and other necessary information, and put effort into disseminating these guidelines to the relevant stakeholders. Effort will also be made to share knowhow with a focus on film commissions that have a proven track record. Furthermore, based on the systems of each country the government will advance reviews of measures to attract location shoots, including the mobilization of funds, so as to contribute to the promotion of the film industry through human resource development, regional

revitalization, and increase in inbound tourism.

- The government will establish the necessary environment to realize the sound and multifaceted development of e-sports, which has gained increasing attention for its market growth and social significance in areas of regional revitalization and social welfare.
- With regard to the CJ Public-Private Partnership Platform, the government will further revitalize it through means such as networking the relevant stakeholders and strengthening publicity through the CJ Ambassadors. It will also accelerate preparations toward the establishment of the necessary organizations to that end.

c) Preparation for the 2025 World Exposition (EXPO 2025 Osaka, Kansai, Japan)

- Based on the theme of “Designing Future Society for Our Lives,” the government will approach each country directly to call for participation in the Expo upon approval of the Expo plans by the Bureau International des Expositions (BIE). Furthermore, in order to realize Society 5.0 based on the concept of “People’s Living Lab” (PLL), the government will work toward the realization of projects recruited from private-sector corporations and other entities.

xi) Promotion of active participation by foreign nationals

1. Promotion to accept highly-skilled foreign professionals

a) Cross-Government approaches to promote employment of foreign students etc. in Japan, and promote their continued activity after employment

- The government will enhance the dissemination of a wide range of information for the recruitment and success of highly-skilled foreign professionals, in cooperation with the relevant ministries and agencies under the platform for promotion of active participation by highly-skilled foreign professionals. In addition to increasing the number of experts to provide accompanying support to micro, small and medium-sized enterprises in the regions, the government will also formulate in FY2020 teaching materials to promote continued activity after employment as well as guidance curriculum for supporting agencies.
- For economic organizations, corporations, and universities, based on “the Handbook for the Employment of International Students and Empowerment after Hiring”, the government will encourage recruitment and selection tests corresponding to the wide range of Japanese proficiency levels and expertise required for the respective jobs, and actively promote the dissemination of information. In addition, it will also implement, in FY2020, surveys to promote effective communication between Japanese employees and foreign professionals.
- To provide consistent support to foreign students for employment in Japan, from the early stages of their studies in Japan, the government will strengthen cooperation through the conclusion of cooperative agreements between universities and Employment Security Bureau (Hello Work) in

FY2020.

- To effectively and efficiently implement measures related to promoting the employment of international students and the acceptance of highly skilled foreign professionals, the government will provide consultation services for foreign nationals and provide information related to internships and other matters, through the Foreign Residents Support Center (opened in July 2020), which integrates the relevant departments of the relevant administrative agencies and other organizations.

b) Enhancement of educational programs

- With the aim of promoting employment of foreign students in Japan, the government will launch, an educational program for foreign students, accredited by MEXT and formulated by universities in cooperation with corporations and other organizations in FY2020. This system will also be expanded nationwide.
- Based on the basic policy for the comprehensive and effective promotion of measures on the promotion of Japanese language education (Cabinet decision on June 23, 2020), the government will promote measures for securing opportunities for Japanese language education and raising its quality. Reviews and preparations will be advanced in FY2020 on the establishment of new qualifications to certify the skills of Japanese language teachers, with a view to submitting a bill at the next ordinary session of the Diet.
- While enhancing the contents of support for Japanese language instruction to children of foreign professionals, the government will formulate guidelines to promote school attendance in FY2020. A review will also be conducted in FY2020 on the strengthening of cooperative systems with corporations and other organizations in vocational schools, and on enhancing the educational system for foreign students.
- The government will validate 300,000 Foreign Students Plan, and based on the results, conduct a review of the future measures for accepting foreign students and reach a conclusion in FY2020.

c) Review and awareness-raising of immigration and residence control systems

- In addition to publicizing and raising awareness of “the Project for Encouraging Foreign Entrepreneurs to Start Business by foreign nationals”, foreign nationals who have graduated from Japanese universities, etc. and who fulfill certain criteria are targeted to receive information on the “Designated Activities” visa (measures will be set out in FY2020) that allows them to reside in Japan for up to 2 years to engage in start-up activities.
- With regard to civil disputes in Japan in which foreign nationals are concerned parties, in order to enable foreign nationals to make appropriate use of judicial services, the government will advance initiatives such as the adoption of IT equipment to provide multilingual support in legal consultations at the Japan Legal Support Center in FY2020.
- In light of the impact of the spread of novel coronavirus infections, the government will flexibly

permit the renewal of residence period for foreign nationals, including international students, who are unable to return to their home countries, and the change of status of residence.

2. Strengthening of the residence management infrastructure and developing online procedures for status of residence

- To accurately and continuously capture information on the status of acceptance of foreign nationals, the government will commence the development of a database system of host organizations in 2020, which will realize the management of information pertaining to foreign students and workers, based on their host organizations.
- With regard to procedures for application for status of residence, in order to expand and promote procedures that can be completed without contact or in-person meetings from the perspective of further enhancing convenience and preventing the spread of novel coronavirus infection, the government will swiftly and successively expand the scope of online applications that are currently only accepted through designated organizations.

7. Maintaining Regional Instructure and Improving SME and Small Business Productivity

(1) Major progress in achieving KPI

[KPI] Improve added value per employee of SMEs by 5% in the next 5 years (by 2025)

[KPI] Aim to increase the number of companies growing from SME to medium-sized enterprise to more than 400 companies per year.

[KPI] Raise the total factors in productivity of SMEs by 5% in the next 5 years (by 2025).

[KPI] Aim to bring the percentage of start-ups to the level of U.S./UK (about 10%).

⇒FY2018: Start-up rate of 4.4% (FY2017: 5.6%)

[KPI] Increase the ratio of SMEs' direct export or direct investment to overseas by 10% in the next 5 years (by 2025).

[KPI] By 2030, Japan ranks first among the G20 in the World Bank's ranking for business environment.

⇒Japan ranked eighth among the G20 at the time of the announcement of the ranking in October 2019 (one position higher than in the previous year)

(2) New specific measures to be taken

i) Maintaining regional infrastructure

1. Enacting exemptions to the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (shared buses, regional banks)

Amidst a declining population, exemptions to the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade will be enacted in order to maintain services of specified regional infrastructure (shared bus operators and regional banks) into the future. There are also some who argue that this is positioned as a strategic review of competition policy in order to truly improve convenience for residents. In consideration of these points, these exceptions should be operated in close cooperation with relevant ministries and according to the purposes of the exemptions.

- In addition to enacting governmental ministerial ordinances and guidelines for enforcing these exemptions, greater predictability for stakeholders will be ensured through the cooperation of related ministries and agencies in response to prior consultations from specified regional infrastructure companies regarding application of the law.
- Regional banks in particular will be strongly urged to strengthen their management capability intensively and at an early date within 10 years, which is the deadline for the special exemptions in question, so as to improve efficiency, productivity, and service quality, including those related to mergers.

2. Early realization of the Super City Concept

- Japan will work towards early realization of the "Super City" concept, aiming for a "Future City in

Whole" that utilizes AI and big data to lead the world and be a front-runner in realizing a life of the future, and will hold an open call for super city applicants, based on the revised National Strategic Special Zones Act, and super cities will be designated during 2020 at the latest. After designating cities, the National Strategic Special Zones Committee will promptly propose a basic concept, including cutting-edge services and regulatory reform across multiple fields such as telemedicine, education, and autonomous driving, etc. The various ministries will also focus on early realization of the concepts, such as by promoting concentrated investment in businesses. Through this process, measures against COVID-19, such as non-face-to-face meetings and automation, will be promoted.

- Toward the early establishment of a foundation for data linkages in cities selected under the Super City concept, the government will quickly implement the survey and design of core elements of the foundation, develop systems, and provide support for smooth operation.

ii) Improving SME and small business productivity

1. Coexistence and mutual prosperity of large businesses and SMEs

- There is a need to rebuild the coexistence and mutual prosperity relationship between large companies and SMEs, moving from having large companies unilaterally forcing subcontractors to reduce costs to having large companies work together with SMEs to create new value, such as through digitization.
- The Promotion Standards based on the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises clearly state that parents companies should cooperate with subcontractors who make efforts to increase productivity, etc., but the main focus is on cooperation with direct transactional partners (primary subcontractors) and there is little encouragement for secondary subcontractors and below. In addition, referring to the Promotion Standards, action plans for optimizing transactions have been formulated on an industry group basis, but the efforts of individual companies are buried through just such industry specific efforts, and there may also be challenges that are spread out across all industries.
- Based on these efforts, and aiming to build relationships where large companies and SMEs can grow together and where individual companies comply with each item (For example, cooperate in increasing productivity of business partners and consider the effect of increased labor costs on equivalent costs in transactions) specified in the Promotion Standards, a "Partnership Construction Declaration" mechanism was introduced which states that the added value of the entire supply chain will be increased, starting with digitalization, not just stopping at the primary subcontractor but also including secondary subcontractors and below. A mechanism will be introduced to create lists of the declaration status of each company, and this will encourage many companies to create declarations.
- The government will strengthen the functions of subcontracting agents through means such as the appointment of professionals specializing in intellectual property, for example, in order to better

capture the actual situation of transactions.

- Strict measures will be taken based on the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade and the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, to prevent parent companies from unfairly shifting the burden from the impact of the novel coronavirus pandemic to subcontractors.
- The protection of intellectual property rights and knowhow pertaining to subcontract transactions, as well as the prevention of the shifting on of losses accompanying work style reform, are positioned as priority issues, and effort will be made to further strengthen initiatives toward optimizing transactions through the creation and dissemination of contract templates, including the aforementioned.

2. Optimizing individual transactions between large companies and subcontractors

- The Promotion Standards stipulate that equivalent costs in a transaction "shall be decided by the subcontractor and the contracting organization after sufficient consultation," but there are some subcontractors who have been unable to request consultation with their contracting organization. The relevant ministries and agencies, in order to optimize individual transactions between large companies and subcontractors, will cooperate to rectify transaction and business practices via Promotion Standards based guidance and advice provided by ministers with jurisdiction.

3. Development of an environment to promote the growth of SMEs

- The government will encourage SMEs to expand their scale of business, raise productivity, and grow to medium-sized or larger enterprises, in order to facilitate support corresponding to the stages of their growth. In addition, the government will coordinate the target scope of policies for SMEs in FY2020 and review the necessary measures.
- In addition to encouraging companies that drive the future of the regions to set regional targets in FY2020, the government will also provide focused support for initiatives toward the attainment of the targets. It will also promote growth and future offering of stock to the public based on the provisions for "deemed SMEs," newly incorporated into the Act on the Promotion of the Growth of SMEs⁵⁷. Furthermore, support will be provided for the establishment of methods for SMEs within and outside the regions to cooperate and develop sustainable business models for resolving social issues that are common to multiple regions.
- With regard to public procurement, initiatives will be advanced to increase opportunities for SMEs and small businesses to receive orders under fair conditions.

⁵⁷ With the exception of some provisions, enforced on a date stipulated by government ordinance, not exceeding six months from June 19, 2020.

4. Support for digital implementation to improve SME and small business productivity

- Frameworks will be built for the continuous implementation, over several years, of support for capital investment to develop innovative products and services in FY2020 through the full utilization of the SME Productivity Reform Promotion Project, support for market development focused on small businesses, and support for the adoption of IT tools, and for enhancing productivity.
- The basic policy for the Small and Medium-sized Enterprises Business Enhancement Act will be revised, and contents related to the utilization of IT for raising SME productivity will be enhanced. In addition, the revision of the policy for each sector will also be considered in FY2020, based on the implementation status and other factors.
- A total of 600 human resources, capable of solving problems such as the management issues of SMEs by using AI, will be nurtured in FY2020 through the problem-solving AI human resource development program.
- Guidelines on the adoption of AI, which sets out the methods for adoption of AI by SMEs in an easy-to-understand manner, will be compiled in FY2020.
- Alongside with promoting the development of user-friendly and low-cost cloud services for SMEs, the government will also promote the utilization of grants for the adoption of IT with cloud services as an element for additional points, through the organization and presentation of examples of improved productivity, as well as the utilization of the “digitization support team project,” through which IT experts follow and support SMEs.
- Projects will be launched by the summer of 2020 to promote all-round improvements in productivity. These include the project to promote advanced collaboration between manufacturing, commerce, and services, which promotes the creation of private-sector services that support the grouping of multiple SMEs to formulate digital transformation plans, as well as projects that create new added value through the sharing of data by multiple SMEs.
- Based on the revised Promotion Standards of the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises, the competent ministry will encourage parent companies, which benefit most from the electronification of transactions between companies, to provide support for companies across the whole of the supply-chain, including the second-tier subcontractor and below, to improve productivity through the electronification of transactions in ways such as electronic data interchange (EDI) common to SMEs and utilization of ZEDI, which is also promoted by the financial circles.
- Based on the adoption of the “invoX” system in 2023 and the conclusion of the ISDN digital communications mode in 2024, urgent steps will be taken to introduce systems for the issuance of eligible invoices by SMEs through the utilization of grants for the adoption of IT and other subsidies, and to review exclusive EDI in individual industrial groupings, so as to overhaul the utilization of company-wide data by SMEs.
- With regard to ensuring cybersecurity, the government will designate the focused targets for protection in the supply-chain in FY2020, and create systems to visualize SMEs that are

implementing the necessary measures.

- In light of the impact of the novel coronavirus pandemic, effort will be made to support the introduction of telecommunications equipment related to teleworking, and to enhance consultation systems, so as to contribute to raising productivity and creating an environment where all SMEs with a desire to introduce teleworking can put it into practice.

5. Promoting smooth regeneration and business restructuring to improve productivity

- To promote business mergers and restructuring for improving SME and small business productivity, the government will present comprehensive support measures in FY2020, including budgets and tax systems.
- Cooperation between “business succession support centers” and M&A intermediaries and platformers from the private sector will be strengthened to revitalize the M&A market for SMEs. In FY2020, the number of registered organizations for such centers will be increased by about 100 from the current 496.
- Through complete compliance by the relevant industries with the M&A Guidelines for SMEs, published in March 2020, the government will promote the creation of an optimal competition environment among M&A intermediaries, appropriate response to conflict of interest that may arise during intermediary transactions, and the optimization of intermediary fees.
- To boost the growth of SMEs and small businesses after business restructuring, support measures to facilitate the acceptance of external management personnel will be strengthened in FY2021.
- The government will promote the utilization of business succession tax systems that promote regeneration, including the alternation of generations, while boosting smooth business succession and maintaining the business. In addition, the government will support new initiatives such as venture businesses through business succession subsidies. Furthermore, based on the Comprehensive Package for Supporting Third-Party Succession, the government will provide strong support for third-party succession among SMEs and small businesses with no successors.
- The government will integrate the functions of the business succession support centers, which support third-party succession, and the business succession networks, which support succession within family, in FY2021, and establish a one-stop system to support third-party succession and succession within family.
- With support from the Organization for Small & Medium Enterprises and Regional Innovation, the government will promote the establishment of a public-private partnership fund, and the regeneration and business restructuring of core SMEs and small businesses in the region. A decision will also be made on about five projects in FY2020.
- Responses and measures by business succession support centers to ensure that valuable management resources, such as the technology and employment of SMEs and small businesses that are considering closing their businesses, will be passed on to the next generation, will be enhanced in

FY2020.

- The government will promote the application of the special provisions for the guidelines on guarantee by business operators, which place the focus on business succession, and which began operation in April 2020. Experts will verify the management status in line with the requirements of these guidelines, such as new credit guarantee systems that do not require guarantee by business operators under specific conditions during business succession, and the separation of the assets and accounts of the corporation and the business operator with a view to cancelling the business operator's guarantee during business succession, and provide support to improve management. Through such systems, the government promotes loans that are not dependent upon the business operator's guarantee during business succession. Furthermore, the rate of guarantee requested for during business succession in government affiliated or private-sector financial institutions, will be published in a list form, categorized by the respective financial institutions. Its effectiveness is enhanced through the analysis and utilization of information obtained through the expert support system, among others.
- The government will strengthen support for entrepreneurship, such as by promoting cooperation with private-sector corporations that support business creation, and supplying risk money by promoting the use of crowdfunding, "angel tax systems" that provide seamless support for the procurement of the funds necessary for expansion from the point of the launch of the business, and tax systems to promote open innovation.
- The government will enhance effectiveness of entrepreneurship support offered by local governments and financial institutions, by carrying out reviews that take into account the actual situation in the regions. It will also promote entrepreneur education, such as briefings delivered by experienced entrepreneurs at educational institutions.
- To promote entrepreneurship in the regions, the government will conduct a review on frameworks that enable diverse personnel with strong motivation to contribute to the local community, to gain a new venue for their activities at SMEs and venture companies and realize them in FY2020.
- By contributing to the creation of value of regional SMEs and small businesses, and to improving their productivity, the government will promote the utilization of the advanced human resource matching program by regional financial institutions, so as to facilitate the creation of sustainable values and development of business models by regional financial institutions together with client corporations. It will also share excellent case studies at the Re:ing/SUM (Regional Banking Summit) that will be newly convened in 2020.
- By drawing up lists of human resources with specialized experience in major banks, etc., and having the lists managed by the Regional Economy Vitalization Corporation of Japan, as well as the implementation of matching activities, the government will realize smooth movement of management personnel as well as side businesses and side jobs, while at the same time, support the strengthening of SMEs' management capacity through funds and loans, in a way that meets the needs

of SMEs in the regions.

- To strengthen support from regional financial institutions to improve the productivity of SMEs, the government will promote the transfer of knowhow as well as the further utilization of the Regional Economy Vitalization Corporation of Japan. The Regional Economy Vitalization Corporation of Japan will also provide support through the utilization of business restructuring frameworks aimed at improving the management of main micro, small, and medium-sized enterprises in the regions whose financial bases have temporarily deteriorated from the impact of the novel coronavirus pandemic, and supply capital funds through funding procured in cooperation with regional financial institutions.
- To promote the growth of micro, small and medium-sized enterprises in the regions, the government will share knowhow and engage in human resource development, through joint investment with regional financial institutions and the utilization of DBJ's specified investment work. It will also nurture those who can take up the responsibility of supply risk money, which creates new businesses and markets in the regions.
- The government will revise the guidelines on debt consolidation due to natural disasters, so as to provide support for debt consolidation among sole proprietors that have been impacted by the novel coronavirus pandemic.
- The government will conduct a review on the target indicators for policies related to the service industry, including SMEs, based on the relationship of various factors that contribute to improving productivity with industry policy, characteristics of each industry, and the impact that the novel coronavirus pandemic, and reach a conclusion in FY2020.
- While assessing the situation of the novel coronavirus pandemic, the government will implement the "Go To Shotengai" campaign. In this campaign, the government will implement initiatives aimed at bringing back the bustle of shopping districts across Japan, including event campaigns, promotions, and development of tourism products, while at the same time putting in place thorough measures to prevent the spread of infection.

6. Promoting overseas expansion and strengthening the resilience of supply-chains in and out of Japan

- The government will employ new tools, such as cross-border electronic transactions and overseas crowdfunding, to strengthen support to SMEs engaged in overseas expansion through the development of prototypes and brands optimized for foreign markets.
- A review will be conducted on relearning measures that will enable business operators to systematically acquire the skills and knowhow necessary for overseas expansion of their businesses, and will be realized in FY2021, to draw out SMEs across Japan that can tackle the challenge of overseas markets.
- Due to the impact of the novel coronavirus pandemic, the government will promote efforts to

strengthen the resilience of supply-chains in and out of Japan, such as by establishing new production bases or expanding existing ones through domestic investment promotion projects for medical supplies industries with inadequate domestic supplies and parts industries facing supply issues, and by supporting the introduction of facilities. The government will also provide support for the review and creation of business models for regional corporations.

iii) Strengthening of regional measures in the face of population decline

1. Regional revitalization that realizes a “new normal for everyday life”

- Due to the spread of the infectious disease, there is growing recognition that it is possible to engage in work without being constrained by the physical location, through means such as telework. Such moves expand the activity spaces for diverse human resources and contribute to improving added value and productivity. At the same time, they also expand the potential for relocating to the regions. To promote regional revitalization that realizes a “new normal for everyday life,” the government will capture the opportunity of growing interest in the Tokyo Metropolitan region for relocating to the regions, to dramatically change the trend of concentration in Tokyo, with its high risk of being struck by disaster, through means such as the promotion of “smart cities.” At the same time, the government will also build resilient and autonomous regional economies by maximizing the use of resources that the regions take pride in, in areas such as tourism and agriculture, forestry and fishery.

2. Supply of human resources to the regions

- To secure the specialized human resources who are needed for resolving management issues of business entities that support the regions, the government will provide support for about 1,000 “advanced human resource matching projects” in FY2020. In these projects, implemented in cooperation with employment agencies, regional financial institutions and other entities conduct surveys and analyze the human resource needs of regional corporations. In addition, the government will also encourage regional financial institutions, etc. to exert their comprehensive consulting functions.

3. Revitalization of regions facing drastic population decline

- With regard to the Cooperative for the Specific Region Development Program, established based on the Act on the Promotion of Specific Region Development for Regions with Drastic Population Decline, enforced in June 2020, the government will provide support for smooth establishment and management in cooperation with regional business organizations, through means such as funding measures and the convention of briefing sessions for local governments. The aim is to develop regions for the stable employment and dispatch of human resources working for multiple business operators with varying labor demand from season to season, in regions where it is difficult to create

employment year-round by the business unit and enable such regions to function as base camps for human resources.

iv) Promotion of National Strategic Special Zones

With regard to the National Strategic Special Zone system, the government will continue to work intensively on the reform of “bedrock” regulations, With regard to the results for special zones with a high degree of economic effects, no particular ill effects, and for which a certain period of time has passed since the application of special measures, the government will accelerate nationwide roll-out, such as the focused advancement of reviews toward nationwide roll-out.

Based upon the foundation of the National Strategic Special Zone system, the government will bring about the early realization of the “Super City” vision, which aims to utilize AI and Big Data with the aim of creating a whole future city that realizes future living ahead of the rest of the world, as well as the early application of the region-limited sandbox system.

1. Early realization of the Super City concept <reposted>

- Japan will work towards early realization of the "Super City" concept, aiming for a "Future City in Whole" that utilizes AI and big data to lead the world and be a front-runner in realizing a life of the future, and will hold an open call for super city applicants, based on the revised National Strategic Special Zones Act, and super cities will be designated during 2020 at the latest. After designating cities, the National Strategic Special Zones Committee will promptly propose a basic concept, including cutting-edge services and regulatory reform across multiple fields such as telemedicine, education, and autonomous driving, etc. The various ministries will also focus on early realization of the concepts, such as by promoting concentrated investment in businesses. Through this process, measures against COVID-19, such as non-face-to-face meetings and automation, will be promoted.
- Toward the early establishment of a foundation for data linkages in cities selected under the Super City concept, the government will quickly implement the survey and design of core elements of the foundation, develop systems, and provide support for smooth operation.

2. Promoting regulatory reform that supports the “new normal for everyday life”

a) Continuous implementation of temporary special measures related to telemedicine

- In light of the concrete needs and issues that were thrown up in the process of establishing the “new normal for everyday life,” based on the assumption of the novel coronavirus pandemic, the government will conduct a review, with 2020 as the initial target schedule, on the required measures that should be established in medical settings, among the handling of administrative communication by MHLW on April 10, 2020, including response from the initial diagnosis of seasonal influenza, which becomes an issue every winter.

b) Response to remote education

- Firstly, the government will work intensively on creating environments where remote education can be conducted. At the same time, while assessing the actual situation on site, including the status of children and students, the government will put in place the necessary measures through MEXT.

c) Lifting of ban on wage payment using digital money (payment to fund transfer specialists)

- With regard to payment of wages to accounts of fund transfer specialists, alongside with establishing schemes such as systems that guarantee payment of an adequate amount to workers quickly in the event of the collapse of the fund transfer specialist, so as to protect workers and ensure that they receive payments, the government will also establish institutionalize systems as soon as possible in FY2020 upon consultation with employer and worker organizations. At the same time, the government will also monitor risks such as money laundering, while referring to the examples of other countries.

d) Other necessary regulatory reforms for the “new normal for everyday life”

- Toward the review of administrative procedures to avoid the “three Cs,” including bringing various procedures online, the needs of local governments will be carefully examined, and the National Strategic Special Zones Advisory Council will conduct an intensive review in coordination with the Regulatory Reform Promotion Council.

3. Further addition of regulatory reform items**a) Exceptions for acquisition of farmland by corporations**

- With regard to the corporate farmland acquisition program that is being utilized in Yabu City, Hyogo Prefecture, the government will conduct a review on the treatment of exceptions to ensure that it can meet the deadline for exceptions in August 2021, based on the actual results during the period.

b) Review of regulations for small mobility devices that fulfill diverse mobility needs

- Of the mobility devices that are small and highly flexible, and which support human mobility, with regard to electric-powered kickboards, the government will urgently commence projects to demonstrate travel zones and vehicle safety standards, while fully ensuring the safety and comfort of various traffic entities including pedestrians.
- In addition, with regard to all small mobility devices as a whole, based on factors such as demonstration tests, international trends, and the needs of users, the government will urgently commence reviews, including the need to revise systems, on the approach to traffic rules such as driver requirements, safety measures, and vehicle classification, in addition to travel zones and

vehicle safety standards, while fully ensuring the safety and comfort of various traffic entities including pedestrians. In particular, a conclusion will be reached in the first half of 2021 on special measures for driver requirements, based on the Act on National Strategic Special Zones.

c) Utilization of mounted mobility support robots on roads in relation to infrastructure inspections

- To enhance the efficiency of infrastructure inspections, the government will consider the safety put in place by operators, contents of the operation, and vehicle safety standards, so as to enable the use of mounted mobility support robots on roads with permission to use the roads in gas-related operations, while ensuring traffic safety for pedestrians and other road users. A conclusion will be reached as soon as possible in FY2020.

d) Review of the scope of treatment of cleaning services using lockers

- To make it easier for users and operators to interact via lockers, with regard to the cleaning of items that require sterilization (designated laundry items), a review will be conducted, and conclusion reached in FY2020 on reviewing the treatment of lockers for designated laundry items, based on the condition that local governments confirm that the appropriate measures are put in place to manage locker hygiene, protect consumers and prevent the spread of infection.

e) Promoting the acquisition of childcare leave by men

- To ensure proper employment during childcare leave, the government will organize cases related to temporary employment during childcare leave period and the objectives of childcare leave, and disseminate this information in 2020.

f) Review of the approach to status of residence for same-sex partners of foreign nationals, toward promoting the acceptance of highly skilled professionals

- From the perspective of accelerating the entry of foreign financial companies, etc. into Japan, the government will continue to review the approach to the status of residence for same-sex partners of foreign nationals.