

# Intellectual Property Strategic Program 2017

May 2017  
Intellectual Property Strategy Headquarters



# Intellectual Property Strategic Program 2017

## Table of Contents

|   |     |
|---|-----|
| <b>Introduction</b> .....   | 3   |
| <b>I. Establishment of IP System as the Foundation for the 4th industrial Revolution (Society5.0)</b> .....                                       | 8   |
| <b>1. Development of IP System for Strengthening Industrial Competitiveness through the Utilization of Data and Artificial Intelligence</b> ..... | 8   |
| (2) Measures for the Future .....   | 19  |
| <b>2. Development of IP System Infrastructure</b> .....   | 23  |
| (1) Present Situations and Challenges .....   | 23  |
| (2) Measures for the Future .....   | 28  |
| <b>3. Integrated Promotion of IP/Standardization Strategies to Lead Global Markets</b> .....  | 36  |
| (1) Present situations and challenges.....  | 36  |
| (2) Measures for the Future .....   | 39  |
| <b>II. Promotion of Regional Revitalization and Innovation Utilizing the Potential of IP</b> .....  | 45  |
| <b>1. Utilization and Enhancement of IP to Support Proactive Agriculture, Forestry and Fishery and Food industries, etc.</b> .....                | 45  |
| (1) Current Situation and Challenges .....  | 45  |
| (2) Measures for the Future .....   | 48  |
| <b>2. Promotion of IP Utilization by Regional Companies and SMEs and Industry-Academia/Inter-Industry Collaboration</b> .....                     | 56  |
| (1) Current Situation and Challenges .....  | 56  |
| (2) Measures for the Future .....   | 61  |
| <b>3. Augmentation of IP Education and IP Human Resource Development toward the "Nation of IP Human Capital"</b> .....                            | 74  |
| (1) Current Situation and Challenges .....  | 74  |
| (2) Measures for the Future .....   | 77  |
| <b>III. Making Japan Shine in 2020 and Beyond by Strengthening Content Quality/Power</b> .....  | 81  |
| <b>1. Promotion of Overseas Expansion of Content and Strengthening of Industrial Infrastructure</b> .....   | 81  |
| (1) Current Situation and Challenges .....  | 81  |
| (2) Measures for the Future .....   | 92  |
| <b>2. Revitalization of the Film Industry</b> .....   | 101 |
| (1) Current Situation and Challenges .....  | 101 |
| (2) Measures for the Future .....   | 105 |
| <b>3. Development of Digital Archives</b> .....   | 111 |
| (1) Current Situation and Challenges .....  | 111 |
| (2) Measures for the Future .....   | 113 |



## **Introduction**

Acceleration of a momentum called 4th Industrial Revolution (Society5.0) and the enhanced access to services utilizing so-called Big Data, IoT and artificial intelligence (hereinafter "AI"), including location information services and health information service, have spurred the development and commercialization of technology in these areas. Further, amidst this situation, more and more businesses from different sectors connected through data and networks are creating new values by collaboration: a phenomenon which was never seen before.

From a global perspective, some countries and regions are seeing the rise of protectionism, but this does not reduce the importance of unrestricted, cross-border movement of individuals, products/services, money and information underpinning economic activities. In such situation, globalization of economy is expected to continue. In particular, the recent progress in cross-border e-commerce and contents distribution business indicates a significant potential for Japan to expand markets, as well as the increasing necessity of combating counterfeits and piracy in global sphere. In addition, recently, the global business environment is growing more and more competitive, for example, emerging countries such as China are taking advantage of the boost in populations to create a huge market and nurturing R&D ability and production capacity. These countries are also increasing their presence in the intellectual property area, striving to strengthen their intellectual property and increasing the number of national and international patent applications.

Against this backdrop, for Japan, which is not rich in natural resources, continuously fostering intellectual properties as the foundation of economic and creative activities of companies and individuals, promoting utilization and maximizing profits generating from these intellectual properties will be the issue of utmost importance for securing prosperity for the future. In addition, the utilization of intellectual properties has become essential in all sectors and areas of industry, such as the exploration of overseas markets for SMEs and agricultural producers in addition to large companies, and creation of venture businesses to stimulate industrial growth, indicating the growing importance of IP strategy.

In order to successfully implement such IP strategy, full functioning of the IP system which serves as the basis of creation, protection and utilization of IP is important. To this end, it is necessary to adapt Japan's IP framework responding to the rapid progress in

technology that has great influence on our economic and social activities, such as information and communication technology and AI, and the change in business models associated with such progress, to promote international collaboration, and to ensure that Japan will successfully achieve our targets, namely, creation of innovation, regional revitalization and nurturing culture.

In light of the above, this "Intellectual Property Strategic Program 2017" focuses on the following viewpoints to implement our IP strategy.

The first point is the creation of IP system to serve as the basis of the 4th Industrial Revolution (Society5.0). The IP system provides the basis of the promotion of utilization of AI and Big Data. It is important for us to review our IP system in its entirety also from a new perspective, while also taking into account the existing system so as to assist Japanese companies in strengthening their competitiveness. Different stakeholders are involved in each stage of creation, management and utilization of such valuable information asset. The promotion of fair transactions while coordinating conflicts of interests among such stakeholders in an appropriate way can facilitate distribution utilization of information. Currently, development in utilization of data and technology and the business environment surrounding AI is drastically changing. In order to adapt to further developments, a continuous discussion participated in by the entire society is necessary, while also revisiting the fundamental issues such as "what is the creativeness to be protected in the digital era?" and "how should the IP system adapt to cross-sectional business collaboration and partnership and open innovation?"

Meanwhile, in the copyright area, since the last year, Japan has discussed flexible provisions on copyright restriction in light of the rise of the digital network era while given due consideration to protection of copyright holders. The promotion of new business creation and cultural activities based on the development of necessary laws is required.

In addition, for the 4th Industrial Revolution, a discussion on the issue of international standardization strategy for IoT services and other fields, including fostering medium- to long-term human resources will also be necessary. Such discussion should take into account a potential "winner-takes-all" issue, namely, that a creator of a platform takes possession of most of the data.

Further, effective and timely protection of intellectual properties are vital for the protection of their value, and resolution and remedy through judicial system as a last resort

for the protection should be put in place to function properly. To this end, systems for IP application and prosecution as well as dispute resolution should be further improved to respond to the 4th Industrial Revolution era and also for international harmonization.

The second point is the regional revitalization and promotion of innovation leveraging the potential of intellectual property. Nowadays, IP strategy, which had been an important challenge for large companies and manufacturers, has become essential for smaller, high-rated firms supporting the regional economy with their often unique technologies, or agriculture, forestry, fisheries and foodstuff businesses achieving high reputations abroad, in order to enhance their brands and business value and to make their way into global markets. Even such sectors have also begun to be influenced by the 4th Industrial Revolution utilizing IoT and Big Data. Support of such smaller, high-rated firms and the agriculture, forestry, fisheries and foodstuff sectors by way of IP strategy is the essential challenge for regional revitalization, which is one of the main pillars of Abenomics. From this viewpoint, it is necessary to establish a local IP cooperation structure also involving new stakeholders such as financial institutions and agricultural organizations, so as to raise their awareness toward IP.

For universities, public research institutes and colleges of technology, which play roles in the creation of innovation seeds and fostering human resources as well, the promotion of industry-academia collaboration and incentivizing venture businesses through devising IP strategy and improving IP management is required. In particular, as the creation of innovation in the future requires an open innovation participated in by different technological fields and multiple players, ability to utilize IP strategy covering open and closed strategy is important.

In addition, thanks to digital network technologies, anyone can now easily transmit and use creations and ideas with industrial value. In order for individual citizens to learn and understand the creation, use, appropriate protection and significance and importance of intellectual properties in their formative years, starting from elementary school, it is necessary to develop organizations assisting elementary, middle and high schools throughout Japan through industry-academia-government collaboration and to improve IP education at higher education institutes.

The third point is the revitalization of the creative contents sector targeting 2020 onwards. Japan needs to combine creative contents such as manga, anime and games with other sectors

including manufacturing, food, sightseeing and science technology so as to capture new markets and customers abroad, while taking various realistic anti-counterfeit and piracy measures such as international cooperation and measures against infringement via the Internet. In particular, film industry, which produces attractive creative contents of Japan, has a potential for increasing export to global markets and attracting tourists. Thus, the movie sector needs assistance from the medium- to long-term perspective, including the development of environment incentivizing young movie producers and SME movie businesses to take challenging opportunities and fostering human resources.

Last of all, the creation of digital archives gathering our nation's knowledge and cultural resources which is capable of transmitting them to the world and leading to creation of new value, as well as its usage, needs to be planned and implemented accordingly.

From the abovementioned viewpoints, the Intellectual Property Strategy Headquarters has laid down this "Intellectual Property Strategic Program 2017," based on discussions started in October 2016 at the "Committee on Industrial Property Rights Fields," "Committee on Content Fields," "Next Generation Intellectual Property System Review Committee" and "Intellectual Property Dispute Resolution System Review Committee," all of which operate within the framework of the Intellectual Property Strategy Headquarters' Verification, Evaluation and Planning Committee.

Intellectual Property Strategic Program 2017 consists of the following parts:

I. Establishment of IP System as the Foundation for the 4th Industrial Revolution (Society5.0)

1. Development of IP System for Strengthening Industrial Competitiveness through the Utilization of Data and Artificial Intelligence
2. Development of IP System Infrastructure
3. Integrated Promotion of IP and Standardization Strategies to Lead the Global Market

II. Promotion of Regional Revitalization and Innovation Utilizing the Potential of IP

1. Utilization and Enhancement of IP to Support Proactive Agriculture, Forestry and Fishery and Food industries, etc.
2. Promotion of IP Utilization by Regional Companies and SMEs and Industry-Academia/Inter-Industry Collaboration



3. Augmentation of IP Education and IP Human Resource Development toward the "Nation of IP Human Capital"

### III. Making Japan Shine in 2020 and Beyond by Strengthening Content Quality/Power

1. Promotion of Overseas Expansion of Content and Strengthening of Industrial Infrastructure
2. Revitalization of the Film Industry
3. Development of Digital Archive

The implementation of this Intellectual Property Strategic Program shall be carried out under the purview of the Intellectual Property Strategy Headquarters, also taking into account the "Science and Technology Basic Plan," "Comprehensive Strategy on Science, Technology and Innovation" and the Basic Plan on Advancement of Utilizing Public and Private Sector Data to be laid down according to the Basic Act on the Advancement of Utilizing Public and Private Sector Data (Act No. 103 of 2016), and in collaboration with the Council for Science, Technology and Innovation, the IT Strategic Headquarters and other organizations. The Program shall be implemented in a robust manner, accompanied by regular verification and evaluation, to derive maximum policy effect as a long-term intellectual property strategy as Japan's growth strategy.

## **I. Establishment of IP System as the Foundation for the 4th industrial Revolution (Society5.0)**

### **1. Development of IP System for Strengthening Industrial Competitiveness through the Utilization of Data and Artificial Intelligence**

#### **(1) Current Situation and Challenges**

With the development of digital networks, IoT and AI, combined with the adoption of the Basic Act on the Advancement of Utilizing Public and Private Sector Data (Act No. 103 of 2016), the Basic Plan on Advancement of Utilizing Public and Private Sector Data and the revised Act on the Protection of Personal Information (Act No. 57 of 2003), certain technical and legal framework has been established. Based on the understanding that the utilization of public and private sector data is a key factor, the use of a large amount of accumulated digital data (Big Data) and AI have been progressing, and the advent of the 4th Industrial Revolution (Society5.0) which will bring about new added value and life quality improvement is anticipated. A movement toward the creation of "data-driven, new type innovation" has emerged, namely, the creation of added value across cyber and physical spheres, based on a large amount of information accumulated and processed beyond the boundaries of different sectors and countries, combined with networks to exchange such information and AIs. Currently, the creation of a business model on the basis of open, global innovation to generate innovative products and services by strategically absorbing or combining useful information from all parts of the world is required. To this end, IP strategy and the IP system to serve the basis of such strategy play a vital role.

In particular, for the current copyright system, in spite of good prospects for new business utilizing Big Data, some problems have been pointed out. For example, it is virtually impossible to obtain consent from all copyright holders of a large amount of unspecified, copyrighted information (work) contained in such Big Data. "Intellectual Property Strategic Program 2016" (adopted by the Intellectual Property Strategy Headquarters on May 9, 2016; hereinafter the "Strategic Program 2016") requires that, in relation to the copyright system in the digital network era, a detailed study of the effects and influences of flexible rights limitations should be made and necessary measures should be taken with a view toward proposing legislation at the regular session of the Diet in 2017. In this connection, the Council for Cultural Affairs, Subdivision on Copyright, Legal and Basic Issues Subcommittee has started discussion on the rights limitations to accurately respond to the needs of new era. The interim report published by the Subcommittee on February 2017 concluded that the most preferable option of "flexible rights limitations" for Japan would be

a "multi-layered" framework combining several limitations, while striking appropriate balance between clarity and flexibility. The report recommended that appropriate flexible provisions should be developed according to the three categories of activities, i.e. "No. 1: category of activities which is out of scope of the normal use of copyrighted work and which is considered generally not to prejudice interests of right holders," "No. 2: category of activities which is out of scope of the normal use of copyrighted work and which would cause only minor disadvantage to right holders," and "No. 3: category of activities expected to promote the use of copyrighted works for the public-interest purpose policies."

On the other hand, the use data and AIs for "data-driven, new type innovation" is expected to have influence on a variety of sectors including manufacturing, agriculture, advertising, retail, finance and insurance, transportation and healthcare services, in addition to the creative contents sector which is closely related to the copyright system.

Some data require investment for collection but are not eligible for protection by the existing IPRs, and, in addition, the treatment of AI generation processes and outcomes is not yet clear under the current IP system. It is important to establish the IP system to ensure full functioning of the purpose of IP strategy to facilitate the investment for such processes and outcomes and allow right holders to have full control over their assignment and co-ownership. With such IP system, it is necessary to promote a good cycle of maximizing profitability and strengthening competitiveness of cutting-edge research and development and new businesses using data and AI to stimulate re-investment for generating new valuable information.

In addition, in order to promote the use which would generate high added value by enabling effective data collection and creating high-performance AI, it is important to develop a good environment for so-called "open innovation," which means the creation of new type of innovation through a large number of participants including SMEs and venture businesses sharing "knowledge" and collaborating with each other beyond the boundary of business sectors. In addition to the creation of such environment, in order for the industry to translate such technological innovation into changes in society, a shift to "connected industries" would also be an option. "Connected industries" means a concept for creation of new added value and solving social problems by leveraging Japan's strengths such as high-level technological competence and practical handling ability to connect different things and events.

Bearing these points in mind, the Intellectual Property Strategy Headquarters created the

Committee to Review Intellectual Property regarding New Data-related Assets to conduct a comprehensive review of all current IP-related mechanisms including protection by patent right, copyright, trade secret and contracts, seeking a framework for the IP system relating to new data-related assets including data and AI so as to establish the IP system serving as the foundation for reinforcing Japan's industrial competitiveness. For the purpose of this review, the focus was placed on a first perspective with an overall influence: the reinforcement of Japan's industrial competitiveness. This first perspective, along with striking the balance between protection and utilization together with international harmonization, formed the three basic perspectives that served as the basis of discussion for seeking a framework for the IP system to promote the use of data as well as the creation and use of AI. The following is the summary of challenges and specific approaches to be taken based on such discussion.

#### <<Framework for IP System to Promote Use of Data>>

Currently, certain levels of technical and legal infrastructure for the use of data have been developed, however, the sufficient use of data is still prevented due to delay in the establishment of the business model and data distribution infrastructure using data<sup>1</sup> and persistent concerns for measures against misuse. Under such circumstance, the IP system as infrastructure for the use of data, in other words, treatment of data not covered by existing IPRs including copyright under the IP system (so-called "data ownership") needs to be streamlined. Apart from data which would require a discussion from the standpoint other than the IP system,<sup>2</sup> in view of the necessity for incentivizing investment in collection, accumulation and storage of data, it is necessary to place focus on "valuable data," comprising "data unrelated to personal information" and "data processed in anonymous form" created by investment by the private sector and discuss the prospective framework for the IP system to promote the use of such data.<sup>3</sup> For the purpose of discussing the new legal

---

<sup>1</sup> "Data" is divided into three categories: "data containing personal information," "data processed in anonymous form" and "data unrelated to personal information (Data Distribution Environment Development Committee, Working Group on Use of Data in AI and IoT Era, Interim Report of March 2017, p.5)

<sup>2</sup> For "data containing personal information," proper use in accordance with the revised Act on the Protection of Personal Information (Act No. 57 of 2003) and the Basic Act on the Advancement of Utilizing Public and Private Sector Data (Act No. 103 of 2016), with involvement of the relevant individuals, is required. Further, publicly-funded data is expected to be used for open data and open science.

<sup>3</sup> A "Report of Committee to Review Intellectual Property regarding New Data-related Assets" (March 2017) defines "valuable data" as "data not covered by protection under existing IPRs including copyright and patent and compilation thereof, which require a certain level of investment of funds and human efforts for collection, accumulation and management (including obtaining license thereof). More specifically, the

framework, issues of predictability and acceptability from the standpoint of secure transaction also need to be taken into account.

**[Categories of Data and Issues to be Discussed]**

| Data category             | Data unrelated to personal information | Data processed in anonymous form | Data containing personal information |
|---------------------------|--|----------------------------------|--------------------------------------|
| Financial source          |  |                                  |                                      |
| Private sector investment | Focus of discussion                    |                                  |                                      |
| Public funding            |  |                                  |                                      |

<Issues with Current IP System>

Under the current IP system, the only legal framework available to ensure that an owner of such valuable data has control over the handling thereof is the protection as a trade secret under the Unfair Competition Prevention Act. Therefore, for using such data without keeping the confidentiality thereof, the only option available for the owner is to regulate the relevant parties by way of a contractual arrangement, in addition to licensing of unrestricted, unconditional use with a purpose to gain benefit for the other related businesses. Under the current system, in practice, valuable data is often used based on such contractual scheme. A protection by way of contract is said to have some advantages also from the international perspective, as it allows setting of terms and conditions tailored to the circumstances and does not require creation of any new legal framework.

However, for valuable data which is out of the scope of protection by statutory rights, it is left to the decision of contracting parties whether to use a contractual arrangement to determine the terms and conditions of use. There is no guarantee that parties reach an agreement as to this point, and, even if the parties decide to use a contract, the level of protection depends on such terms and conditions. Even a contracting party which made a great contribution to the collection of data may not be appropriately rewarded because of the relationship between the parties and lack of knowledge. In addition, a contract is not binding

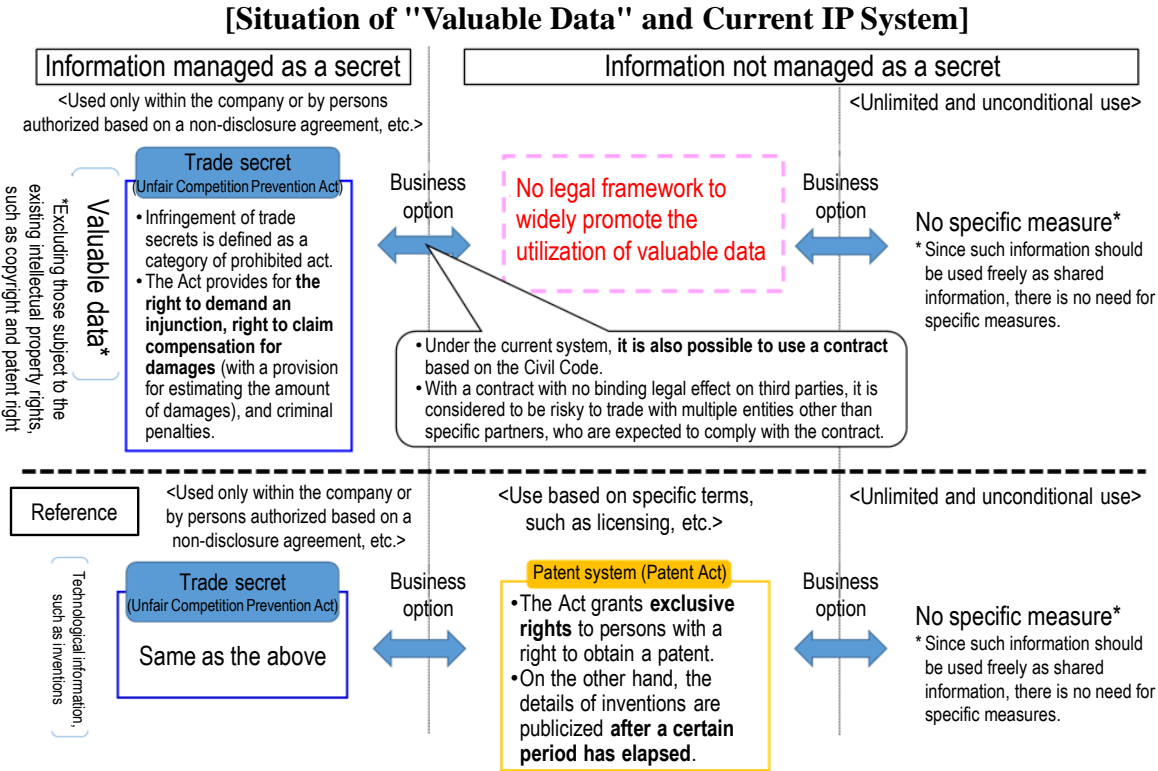
---

report mentions the following specific examples: "Such data includes 'data unrelated to personal information' that can be generated by a sensor attached to production machinery located within a manufacturing plant, a meteorological sensor for farming, a sensor attached to structures such as a bridge. In addition, it also includes data processed in anonymous form that can be generated by processing data from a sensor camera fitted on an automobile, home electric appliance for smart house, wearable device, smartphone, smart card, surveillance camera or other device. In addition, such data may also include a '3-dimension data of an object not covered by IPRs' as discussed at the FY2015 Next-generation Intellectual Property System Discussion Committee. Further, considering the court precedents, it may also include a 'database created by investing money and human efforts,' which was an issue of dispute in Tsubasa System case."

upon third parties, and its deterrent effect is weak compared to rights of which infringement constitutes a violation of law. In addition, under the current system, a risk of not even reaching an agreement has been pointed out, because of high data retrieval cost as a result of confidential treatment of data (i.e. as a trade secret) which should be otherwise made available for open use. Further, the necessity of discussion of the data use from the viewpoint of anti-competition laws is also pointed out.

In order to collect, accumulate and maintain valuable data, it is necessary to invest funds and human efforts for sensors, control system for sensors, Internet services, etc. However, considering the risk of such data being misused and trade secrets being infringed, the owner will have no choice but to use such data as a trade secret within the company or restrict the use thereof to some specific reliable partners bound by contracts to control such risk. Consequently, data owners will still face risks in expanding data transaction among different fields or entering into a contractual relationship with SMEs and venture businesses not in reliable relationship.

Thus, under the current system, business options for securing a data owner's control over transfer or sharing of valuable data is not sufficient, which represents potential risk of negative impact on open innovation. It would be necessary to develop, as a business option, a legal framework assisting wide use of valuable data without keeping it secret.



### <Policy Measures Assisting Expansion of Availability of Valuable Data>

In order to improve availability of valuable data, some approaches may be possible, for example, "approach to assist private sector activities" (e.g. contract, enhanced security and developing data distribution infrastructure), "approach to regulate certain activities" (e.g. restriction of misuse) and "approach to grant certain rights" (e.g. right to claim compensation or right similar to right in rem). Among the above, regarding the approach to grant certain rights, there is a concern that granting an exclusive right which includes a right to refuse license to use may result in detrimental effect on the use of data. The approach to create a limited right, such as the right to claim compensation, is welcomed by some from the standpoint of securing investment incentives and revitalization of markets, while others have concerns about potential obstacles to its use considering the self-sufficient tendency of Japanese companies.

On the basis of the foregoing, as a measures to promote open use of valuable data, while securing investment incentives for collection, accumulation and maintenance thereof, first of all, the "approach to assist private sector activities" should be taken, including identifying points at issue in contractual arrangements and the development of data distribution infrastructure, while also discussing the "approach to regulate certain activities" by such way as creation of new categories of unfair competition acts. With regard to creation of limited rights, further discussion is needed, including the question of whether such approach should be taken, while taking into account the development of data business, data market and situations of foreign countries including Europe.

### <<Desirable Framework for IP System for Promotion of Creation and Use of Artificial Intelligence>>

Thanks to various studies so far, a variety of "AI with specific functions,"<sup>4</sup> including hiragana/kanji conversion and search engines, have been widely used in the industrial sector. For AI with specific functions, due to progress in study on the area of machine learning, which requires large amounts of data, a method called deep learning method<sup>5</sup> has been

---

<sup>4</sup> See the Japanese Society for Artificial Intelligence (<http://www.AI-gakkAI.or.jp/whatsAI/AIresearch.html>). It is understood that AIs have two categories, namely a "versatile AI based on the approach to create a machine with human intelligence itself" (hereinafter a "versatile AI") and an "AI based on the approach to make a machine do what humans usually do with their intelligence" hereinafter an "AI with specific functions." Versatile AI is under various discussion from wide-ranging aspects, including the consequence and potential issues of such AI if it is successfully developed, and the possibility of a corporation status such as "AI entity" in the future; however, there is no prospect that such AI will be common.

<sup>5</sup> Thanks to deep learning, computer is now able to calculate the feature values for designing features for

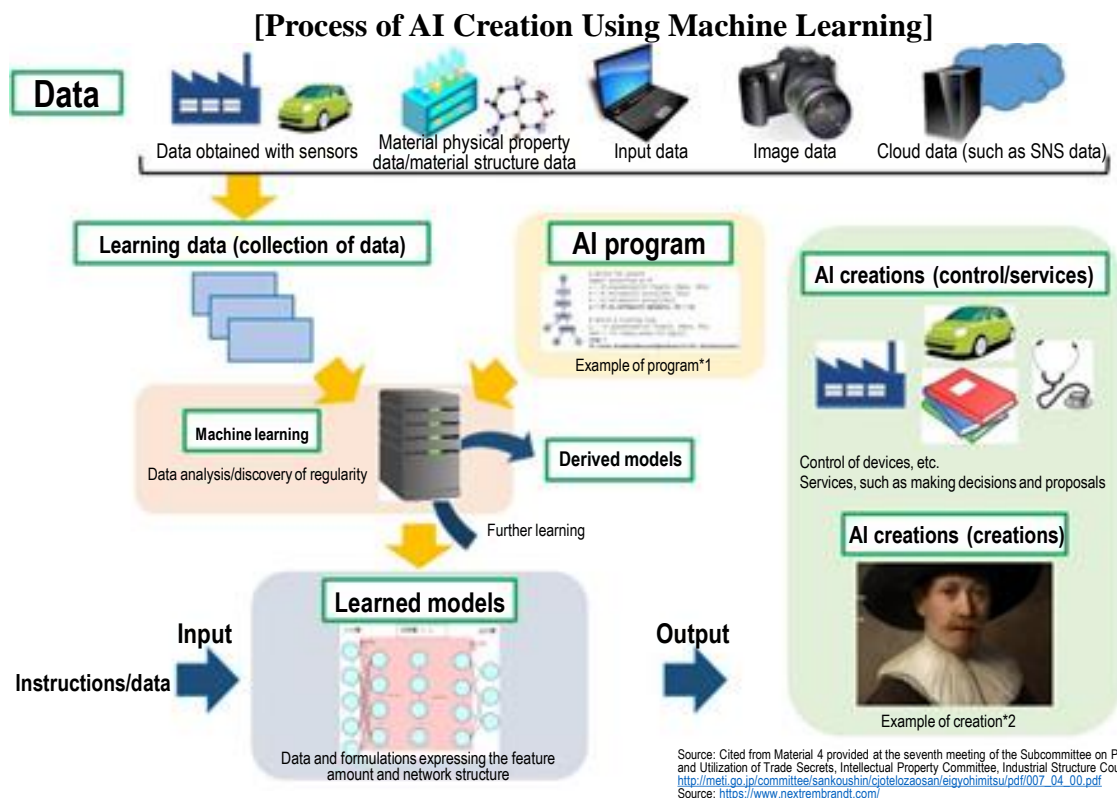
emerging. This deep learning method is triggering the evolution of AI, such as enhanced accuracy of image recognition results which can be used for cancer examination using CT images, and it is expected to be widely used for a variety of industries. In this context, it is necessary to discuss a future framework for the IP system so as to lay the foundation of the promotion of creation, development and use of AI using machine learning and in particular the deep learning method and the enhancement of Japan's industrial competitiveness.

For machine learning and deep learning, a "learned model" is created by using a large amount of "learning data," and then input to an AI program so that it will learn data to acquire certain functions. When a "learned model" is to be used for a specific purpose, an "AI creation" is generated by inputting new data and instructions. It is necessary to conduct a concrete discussion on the future framework for the promotion of creation and use of "learning data," "AI program," "learned model" and "AI creation" relating to such machine learning, respectively.

---

identification and decision-making based on data input, which were required to be done by a human for the former machine learning.





### <Learning Data>

There is a concern that capability of AIs depends on the amount and content of learning data, and for research and development of AI, it is desirable to ensure that data can be collected and shared in the joint works of many people. However, if learning data contains a copyrighted work, sharing such data may provoke a problem under copyright laws. Therefore, transmission of learning data to unspecified third parties should be discussed within the framework of system design of "flexible rights limitation" as mentioned above and investigations conducted while it is put into practice. Further, from the standpoint of publication and sharing of AI learning data that can be made publicly available, public bodies are required to make efforts for appropriate publication and sharing of data, in line with the spirit of open science and open data.

### <AI Program>

Currently, many AI programs are used on an open-source basis. Under the current IP system, such programs are eligible for protection as "program work" and "product invention (computer software, etc.)," respectively. Thus, considering that the capability of the current IP system to provide necessary protection, providing further incentive is not considered absolutely necessary at this stage. Monitoring the development of the situation in use would

be sufficient for the time being.

#### <Learned Models>

In order to create a learned model, a significant amount of computer resources and time is required for the learning process. A large investment of money and human efforts is necessary for the creation of a learned model. Such learning process may also produce a learned model which constitutes a new technology. As a learned model is a "combination of an AI program and parameters," it is eligible for protection as a whole under the current IP system as "program work" or as a "program, etc." provided in the Patent Act. Currently, by using the method called "distillation"<sup>6</sup> that uses an original learned model, another learned model with almost same capabilities with such original can be created in an efficient way; however, it is technically difficult to clearly establish the association with the original model. Against this backdrop, the issue of insufficient protection under the current IP system has been pointed out. Some suggests that a new system should be considered that requires a marking on an outcome of a learned model, so as to facilitate the proof of the association. Considering the rapid change in AI technologies, and the situation where such considerations are not being actively conducted in foreign countries, such new right requires continuous discussion. An appropriate framework for protection by contractual scheme needs to be first discussed in a concrete way. Meanwhile, if a learned model is patented, the patentee would be able to enforce such patent right if he/she proves that a model created by "distillation" falls under the technical scope of the patented invention. So, predictability for obtaining a patent for a learned model needs to be improved.

#### <AI Creations>

Among AI creations, an AI-created works which is defined as a "creation autonomously produced by AI," is out of the scope of any rights under the current IP system. On the other hand, "services using AI creations" and "creation by the use of AI" have a potential for generating a new culture which can motivate new innovation and provide benefits to human society, and a framework should be discussed so as to promote such new activities to create high added value and provide investment incentives. In reality, AI-created works are said to exist, however, some point out that such creations actually put on the market involve creative

---

<sup>6</sup> "Distillation" means a methodology whereby a new learned model is created based on the results derived from repeatedly inputting and outputting data in and from an existing learned model, similar to reverse engineering. Such methodology enables creation of a learned model for processing the same tasks, in a more efficient manner than creating another learned model from scratch.

contributions of humans, and can be considered as creations using AI as merely a tool. Accordingly, discussion reflecting such reality is necessary. In addition, discussions should be made on potential issues of AI creations, including a potential risk of AI-created works that cannot be distinguished from human creations being passed off as human creations.

For services using AI creations, there is an opinion that the provision method thereof can be protected by patent right as a business-related invention, whereas the practice of patent examination, as well as significance of obtaining such patent is not sufficiently recognized. In this context, it would be necessary to provide the public with more access to information on patent protection and utilization. In addition, it is also important to promote the harmonization of the practices with patent offices of foreign countries.

For a creation using AI, if such creation involves a creative contribution of humans toward obtaining an AI creation which is a physical outcome of an AI creation generation process, such creation is deemed to be the one using AI as a "tool," and consequently can be considered to qualify as a work to be protected by copyright. On the contrary, if there is no creative contribution of a human, the AI creation will be categorized as an "AI-created work" autonomously created by the AI and consequently not treated as a work under the current Copyright Act. Further, in the opinion of some observers, a creation consists of three steps, i.e. "identification of a problem to be solved," "determination of a possible solution" and "assessment of effect," and the approach to consider whether any of these steps involve any creative contribution of a human, or the approach to consider whether the creation was conceived of by a person, based on the interpretation that an "inventor" under the Patent Act shall be limited to a natural person. Finally, what kind of involvement exactly constitutes a creative contribution needs further, case-by-case discussion, while keeping our eyes on the development on AI technologies.

**[Categories of AI Creations]**

| Type of AI creations<br><br>Contribution of human creative activities | Output (data) equivalent to "property that is produced through creative activities by human beings"<br><small>*Article 2, paragraph (1) of the Intellectual Property Basic Act</small> |  | Other outputs (i.e. data)                               |
|---|--|--|---|
|   | Property equivalent to copyrighted work (e.g. musical works, illustrations, novels)  | Property equivalent to invention, design, etc. |   |
| No  | <b>AI-created works*</b><br><small>*Defined in 2016 Intellectual Property Strategic Program as a property which is out of scope of protection under the current IP system</small>      |  | Determination, judgment, consequence of proposals, etc. |
| Yes   | Creation made by using AI as a tool  |  |   |

Among the potential issues of AI creations, there is an issue of whether a copyright is infringed if the AI creation is identical or similar to its original learning data, in all or in part, and if so, what conclusions are reached regarding the reliance on such data and similarity. Considering that there are only a few cases dealing with this issue, and also the extremely rapid change in AI technology, a case-by-case discussion as to whether the traditional approach based on human creation can be applied to AI creation is necessary. Further, there may arise an issue of abuse of right such as that of a patent troll, i.e. a fraudulent representation that an AI creation, which is out of scope of protection under the current IP system, is a human creation and allege infringement thereof, thus exerting an impact on human creation activities. This issue will only arise in the case of publication of a large amount of creations which are out of the scope of human contribution, and, in the case of an invention, the patent examination system will serve as a certain kind of restriction on such fraudulent acts. Therefore, it is not clear whether such issue poses a significant influence on creation and other social activities of humans, and it is necessary to keep eyes on change in AI technologies and conduct further discussion.

Considering the fact that AI creation can generate more value by adding some human creative contributions, such as selection, editing and processing, a new creation proactively utilizing AI as a tool and expansion of activities for generating sophisticated added-value is expected from the standpoint of reinforcement of industrial competitiveness.

## **(2) Measures for the Future**

Considering the current status and challenges as mentioned above, the following measures shall be taken by the relevant ministries and agencies, with a view to establishing IP and copyright systems for the promotion of data and AI, so as to achieve a "data-driven, new innovation."

### **① Development of IP System, etc. for Promoting Data Utilization**

#### **(Assistance on Contractual Arrangement for the Use of Data)**

- With a view to promoting the contract arrangements for the data use with reasonable contractual terms, prepare contract guidelines, etc. addressing issues relating to the proper arrangement for data access depending on the level of contribution to creation data, and continue the discussion on the future framework for contracts for use of data in a concrete way. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

#### **(Development of Sound Data Distribution Infrastructure)**

- Advance measures for assuring information security and the development of environments such as network investment, standardization and human resources. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry)
- In order to achieve cross-sector distribution of varied, large amounts of data, implement demonstrative experiments through government-private collaboration and discuss the necessary assistance measures and framework for the social implementations, such as personal data store (PDS) and "information bank" which are mechanisms to promote distribution and use of data with cooperation among individuals, and "data transaction market" for the matching of demand and supply of data and the promotion of appropriate benefit sharing among the society. (Short-term, Medium-term) (Cabinet Secretariat; Cabinet Office; relevant ministries and agencies)

#### **(Securing Fair Competition Order)**

- With regard to the reinforcement of technical restriction measures such as the prohibition of unauthorized access to data and data encryption aimed at securing fair competition order allowing valuable data owners and users to provide or use data without having to worry, accelerate the discussion at the Industrial Structure Council, Intellectual Property Committee to reach a detailed conclusion as to the measures under the legal system and

to take necessary measures within FY2017, with view to submit the relevant bill to the next ordinary Diet session. (Short-term) (Ministry of Economy, Trade and Industry)

**(Publication of Example Cases Relating to Patent Examination of Data Structure)**

- In order to enhance predictability of obtaining patents on data structure generated from the advancing technologies such as IoT and AIs, widely disseminate to international and domestic users information on patent prosecution cases relating to data structure publicized in FY2016. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Discussion on Rights with Restrictions for the Promotion of Use)**

- In order to promote open use while securing investment incentive for collection, accumulation and storage of valuable data, continue discussion on restricted rights taking into consideration such factors as the development of data business, situations of data market, status of discussion in foreign countries, and also considering whether such rights are necessary. (Short-term, Medium-term) (Cabinet Office; relevant ministries and agencies)

**(Streamlining Points in Issue From Standpoint of Securing Competition Relating to Use of Data)**

- Continue streamlining points in issue relating to the use of data, taking into account the actual status of use of data and from the standpoint of securing fair and free competition environment and promotion of innovation. (Short-term) (Japan Fair Trade Commission; Ministry of Economy, Trade and Industry)

**② Development of IP System for the Promotion of Creation and Use of AIs**

**(Improving Environment for Promotion of Creating Learning Data)**

- With a view to promoting generation of AI in Japan, continue discussion on provision and disclosure of learning data beyond specific stakeholders, within the framework of system design and practices relating to rights limitations under the Copyright Act responding to the needs of a new era. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Promote publication and use of data possessed by the national and local government

bodies. (Short-term, Medium-term) (Cabinet Secretariat)

**(Promoting Appropriate Protection and Use of Learned Model)**

- For the protection of learned models, keep our eyes on changes in AI technologies and continue detailed discussion on the framework for appropriate protection by contractual scheme. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Cabinet Office)
- Continue discussion on the concrete requirements for patent protection of learned models and the scope of protection of the patented invention. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Discussion on Prospective Framework of AI Products under IP System)**

- Continue studying case examples relating to AI creations, and further case-by-case discuss approach for understanding the degree of human creative contributions to AI creations and potential issues involving AI creations, while keeping our eyes on changes in AI technologies. (Short-term, Medium-term) (Cabinet Office; relevant ministries and agencies)

**③ Establishment of Copyright System Underpinning the 4th Industrial Revolution (Society5.0)**

**(Discussion on Rights Limitations with a View to Promoting Innovation)**

- For flexible rights limitations under the Copyright Act, take necessary measures for early submission of a bill in light of "Intellectual Property Strategic Program 2016" so as to establish provisions securing appropriate flexibility in relation to "multi-layered" solutions combining various provisions striking balance between clarity and flexibility in line with the report of the Council for Cultural Affairs, Subdivision on Copyrights of April 2017. In addition, take necessary steps including preparation of guidelines, dissemination and education relating to copyright, and the promotion of development of environment for licensing. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

**(Further Improvement of the Compulsory Licensing System for Orphaned Works)**

- In order to facilitate the utilization of works for which there is no clearly identified

copyright holder (orphaned works), discuss revising the compulsory licensing system for such work to allow for deferred payment of compensation in certain cases, and develop necessary measures with a view to proposing legislation at the earliest convenience, in line with the "Intellectual Property Strategic Program 2016." Also, continue taking necessary measures aimed at reducing the user cost burden of finding copyright owners, taking into account the results of verification of the effect of reducing such burden conducted in collaboration with private bodies since October 2016. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### **(Developing and Constructing a Smooth Licensing System)**

- Continue discussion on specific issues based on the results of research on an extended collective licensing system conducted in FY2015 and FY2016, from the perspective of accommodating utilization of copyrighted works. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Promote public-private collaboration in each field to develop an aggregated database of rights information for creative content, etc., in order to make the rights clearance process smoother, thereby promoting the utilization of creative content. In addition, in FY2017, implement a demonstrative project for creating a new database by integrating existing rights information and discuss creation of rights clearance process utilizing such database (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Economy, Trade and Industry)
- Provide further necessary support for private sector efforts to build up and improve the licensing environment, such as through the establishment of the "Music Collective Licensing Center" (provisional title) to oversee a collective licensing-driven contract scheme and to serve as a one-stop consultation center. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### **(Development of an Environment for Sustainable Content Reproduction)**

- Discuss at the Council for Cultural Affairs for revising the Copyright Levy Framework for private audio/audiovisual recordings while introducing a new structure to replace the existing system so as to ensure content reproduction with appropriate compensation for content creators, and implement necessary measures based on the conclusions of such council meetings. (Short-term, Medium-term) (Ministry of Education, Culture, Sports,



Science and Technology; Ministry of Economy, Trade and Industry)

**(Promotion of ICT in Education)**

- For facilitating use of copyright works for ICT education, take necessary measures relating to smooth public transmission of copyright works for school classes, based on a report of the Council for Cultural Affairs, Subdivision on Copyrights (April 2017) including the development of new rights limitations with right to claim compensation. Regarding shared use of study materials for educational purposes among teachers and educational institutions, continue discussion after identifying the needs in more details. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Discuss and take necessary measures for the issue of the promotion of training and dissemination activities relating to copyright laws at educational institutions and the issue of the development and improvement of licensing environment. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Take necessary measures so that publicized copyright works can be included in digital textbooks to the necessary extent, while taking into account the public nature of digital textbooks and their roles in school education system. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

**2. Development of IP System Infrastructure**

**(1) Present Situations and Challenges**

In order for Japanese companies to do business globally, as a precondition for the use of IP to create and expand businesses, availability of smooth IP protection is imperative in Japan and abroad. To this end, in addition to developing an environment for swift and appropriate IP protection in Japan, it is necessary to continue international collaborative efforts with foreign IP offices so as to facilitate smooth protection of IP in foreign countries.

Further, IP dispute resolution system is the last resort for the settlement of IP dispute. In other words, effective protection of intellectual property as a proprietary right through court and other procedures will incentivize creation of new intellectual properties, which will be used and reinvested in the entire society to create a virtuous cycle further generating IP creating capabilities. In this connection, some assert, as one of the achievements of economic science, a theory that the property right system serves the basis of the current economic

development, and that the IP system constitutes one of the important pillars of such system and assurance of systemic protection of intellectual property rights will lead to smooth use thereof.

### <<Reinforcement of Functions of IP Dispute Resolution System>>

#### <Reinforcement of Functions of IP Dispute Resolution System>

Amidst the increasingly severe international competition, including the increased presence of emerging countries such as China, in order to maintain and improve Japanese industrial competitiveness, the importance of swift and appropriate resolution of various IP disputes is growing, as such resolution serves the basis of creating innovation using IP.

Against this backdrop, in relation to the reinforcement of functions of IP dispute resolution system, in the Strategic Program 2016, it was decided to reach a certain conclusion on the prospective legal framework in FY2016 in relation to comprehensive measures including the "implementation of appropriate and fair evidence collection procedures," the "implementation of appropriate compensation for damages reflecting actual business circumstances and needs," and the "enhancement of rights stability from the granting of rights to the settlement of disputes." In this connection, the Industrial Structure Council, Intellectual Property Committee, Patent System Subcommittee continued discussion and reached certain conclusions in March 2017. The summary of such conclusions are as follows:

- Implementation of appropriate and fair evidence collection procedures

Conduct further discussion with a view to revising the current Patent Act, in order to introduce a system to allow a neutral third-party technical expert to participate in evidence collection procedures subject to certain confidentiality obligations and a system to allow determination of the necessity of production of documents and evidence by way of in-camera procedures for document submission orders and evidence submission orders.

- Implementation of appropriate compensation for damages reflecting actual business circumstances and needs

First, legislative measures for reinforcement of evidence collection procedures should be taken to develop an environment to facilitate awarding of more appropriate damages. Then, a careful discussion should be continued while paying attention to the court practices and development in foreign countries in relation to awarding of damages.

- Enhancement of rights stability from the granting of rights to the settlement of disputes  
Verify the effectiveness of the patent objection system introduced for the early

stabilization of rights, and continue careful discussion while paying attention to the development of court decisions on patent validity and user needs.

Although the above conclusions were reached at the Industrial Structure Council, Intellectual Property Committee, Patent System Subcommittee, in order to reinforce functions of the IP dispute resolution system, in addition to further discussion on review of these systems, it is necessary to ensure appropriate IP litigation practice considering reasonableness, transparency and accountability. In addition, with regard to the prospective framework for the IP dispute resolution system, it is important to continue verification and review on a regular basis in line with the purpose of such system, while considering the status of practical operation and development in foreign countries from the standpoint of promoting the innovation and international competitiveness of Japan.

#### <Assistance in Use of IP Dispute Resolution System>

Government and private sectors have exercised various efforts to facilitate access to IP-related court proceedings, while taking into account the fact that retaining experienced patent attorneys and lawyers is quite difficult and that court costs have significant impact on the business management of SMEs. It is important to continue reviewing and improving such assistance from the viewpoint of users.

In addition, as the different point of view, due to the development of IoT, there is a growing need for companies of various business sectors and areas to use standard specifications relating to IT technology, and the cost for licensing negotiation and dispute resolution for patents necessary for the implementation of standards which serve as social infrastructure is increasing. In particular, it is necessary to deploy measures to minimize such costs to SMEs and venture businesses. More concretely, it would be appropriate to continue discussion on options such as the determination of reasonable license fees for standard-essential patents with significant social impact and establishment of alternative dispute resolution (ADR) for smooth and simplified resolution of various patent disputes.

Further, for access to IP court procedures in local areas, the courts of first instance for patent litigation are limited to the Tokyo and Osaka District Courts, however, thanks to various promotional activities, use of video conferencing system is increasing to handle cases which satisfy the legal requirements and which are considered appropriate. Further efforts to promote use of the video conferencing system depending on the needs is required.

### <Disclosure and International Publication of Information Relating to IP Dispute Resolution>

For disclosure of information relating to the IP dispute resolution system, measures have been taken that include publication of statistical information on patent infringement actions, from the perspective of securing trust in the system among domestic and international users and improving the predictability of outcome of court proceedings. Such system is also important from the international perspective regarding Japanese companies doing business overseas and participation in international rule-making. In this respect, continuous, proactive effort is needed.

### <<Strengthened Assistance for Global Business Activities by World-leading Level Examination>>

Due to the rapid progress in the 4th Industrial Revolution which is bringing about a drastic change in the structure of industry, new technologies and business models are emerging, requiring diversified IP management. In such situation, in order for Japan to maintain and improve industrial competitiveness and keep a solid position in the international society, it is essential for Japan to improve the IP system and its practices underpinning Japan's industrial competitiveness, according to changes in social circumstances and user needs.

In the patent area, with a view to achieving the "world's fastest, highest quality" examination for protecting excellent inventions in a swift and appropriate way, Japan has set a long-term target up to FY2023 to shorten the examination period, i.e. 14 months on average for the period required for obtaining rights, and 10 months on average for the period before receiving the first examiner's notice. For quality improvement, Japan established the Examination Quality Management Subcommittee at the Industrial Structure Council, Intellectual Property Committee so as to conduct discussion on the future framework for the policy measures to enhance quality.

In the future, from the perspective of the extending "world's fastest, highest quality" examination to new and hybrid technologies generated by the rapid progress in the 4th Industrial Revolution, further efforts are required, such as reorganizing patent classification for prior art search, improving the predictability of determination of patentability, and reinforcement of organizational framework for patent examination.

In addition, in order for Japanese companies to continue global business activities in a strategic manner, it is essential for them to obtain and use IP in destination countries in an appropriate and smooth manner. However, in emerging countries of Asia, which are expected

as potentially important markets, there still remain some problems including delay in developing frameworks for examination by IP offices. Considering such situation, it is important to reinforce international collaboration efforts to allow Japanese companies doing business overseas to protect their patents in a smooth manner.

Industrial design had been on a decline in the number of applications for registration until 2014, but turned to an increase after 2015, partially owing to increased use of international application under the Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs which was started for receiving applications from May, 2015. Further, it was agreed at 2nd Industrial Design 5 Forum (ID5) held in November 2016 to promote further international collaboration efforts in the area of industrial design.

Meanwhile, for Japanese companies to keep competitiveness in the global market, corporate branding utilizing design is important. Discussion is required for the reinforcement of Japanese companies' ability to leverage designs and the development of a design protection framework to assist and promote such ability.

For trademarks, after 2013, the number of trademark applications has seen an increase of about 10% on a yearly average, requiring the development of a systematic framework for examination. In addition, since the beginning of acceptance of filing in April 2015, new types of trademark applications, including sound mark, color mark, motion mark, position mark and hologram, are increasing. These new types of trademark provide non-language based means to promote brands and play an important role for corporate branding strategies. As such, it is important to continue assisting companies in their devising of branding strategies by ensuring appropriate trademark examination.

In addition, recently, some applicants are filing a large number of trademark applications with procedural defects, causing some negative consequences such as applicants of later filed trademarks abandoning their applications. Measures should be also discussed to address such issue.

The environment surrounding industrial properties will continue to grow increasingly diversified and complicated. It is expected that such changes in the environment would lead to qualitative and quantitative change in patent administration services including patents, utility models, industrial designs and trademarks. A discussion needs to be continued from the mid to long-term perspective with a view to improving efficiency and quality of patent administration services.

## **(2) Measures for the Future**

Considering the present situation and challenges as explained thus far, the relevant ministries and agencies are to proceed with the following efforts so as to ensure an environment enabling the holistic measures for reinforcement of functions of the IP dispute resolution system and the swift and appropriate protection of IP in Japan.

### **① Developing Infrastructure for IP Dispute Resolution System**

**<<Reinforcement of Functions of IP Dispute Resolution System (e.g. Improvement of Evidence Collecting Procedures)>>**

**(Achieving Appropriate and Fair Evidence Collecting Procedures)**

- In order to introduce a system to allow determination of necessity of production of documents and evidence by way of in-camera procedures for document submission order and evidence submission order and a system to allow a neutral third-party technical expert to participate in evidence collection procedures subject to certain confidentiality obligation, take measures based on specific conclusion on the legal measures reached within FY2017, with a view to submitting a bill to the next ordinary Diet session. (Short-term) (Ministry of Economy, Trade and Industry)

**(Ensuring Appropriate Assessment of Damages and IP Value Reflecting Business Practices and Needs)**

- Develop an environment for facilitating awarding of more appropriate damages through improvement of evidence collection procedures, so as to ensure appropriate assessment of damages and IP value. In addition, conduct further study on the developments in Japan and foreign countries in order to discuss necessary measures, while taking into account various opinions of stakeholders from industry, the legal community and academic society. (Short-term, Medium-term) (Cabinet Office; Ministry of Economy, Trade and Industry; relevant ministries and agencies)

**<<Assistance in Use of IP Dispute Resolution System>>**

**(Discussion on ADR System Relating to Standard-essential Patents)**

- Amidst the spreading of IoT, for the promotion of smooth use of standard specifications for technologies to serve as social infrastructure, reach specific conclusions as to the prospective legal measures within FY2017 and take necessary measures for an ADR

system for determining reasonable license fees for standard-essential patents with significant social impact (standard-essential patent awarding system), while paying attention not to give undue impact on the right of patentees, with a view to submitting a bill to the next ordinary session of the Diet. (Short-term) (Ministry of Economy, Trade and Industry)

**(Improvement and Promotion of Active Use of Alternative Dispute Resolution (ADR))**

- Expand and leverage ADR by striving to increase applications for certified ADR service providers for IP ("Solution Support Service"),<sup>7</sup> with a view to facilitating parties involved in disputes including IP disputes in choosing appropriate dispute resolution options. In addition, grant certification of ADR service providers through appropriate examination procedures and more widely publicize information on certification of ADR service providers. (Short-term, Medium-term) (Ministry of Justice)
- Considering the increased costs of licensing negotiation and dispute resolution associated with the spreading of IoT, continue discussion at the Industrial Structure Council, Intellectual Property Committee on ADR system (mediation) regarding swift and simplified reconciliation of various patent disputes based on the requests of a variety of businesses including SMEs and venture businesses. Clarify the relationship between such system and existing ADR systems, and take necessary measures after reaching specific conclusions within FY2017. (Short-term) (Ministry of Economy, Trade and Industry)

**(Proactive Use of International Arbitration)**

- Conduct discussion and take specific measures for improving the necessary infrastructure for facilitating settlement of the increasing international disputes among companies, including IP disputes, with a view to leveraging use of international arbitration in Japan, including assistance in fostering experts involved in international arbitration proceedings. (Short-term, Medium-term) (Ministry of Finance; relevant ministries and agencies)

---

<sup>7</sup> This refers to the private dispute resolution service provider certified by the Minister of Justice according to the Act on Promotion of Use of Alternative Dispute Resolution (Act No. 151 of 2004). For procedures conducted by a certified ADR service provider, certain effects are realized subject to specific conditions, including suspension of prescription.

### **(SME Support)**

- In order to address the issue of increasing costs for SMEs in dealing with IP disputes, study private sector programs on litigation cost insurance covering IPs available for SMEs, and strive to expand overseas IP litigation cost insurance and assist its independence. (Short-term) (Ministry of Economy, Trade and Industry)
- In order to assist access to IP experts in local regions, improve structures to facilitate the ability of local residents to retain experts versed in IP dispute resolution, by such means as creating a system for introducing a consultation site and a database of patent attorneys, in collaboration with related organizations and as a part of information provision services. (Short-term, Medium-term) (Ministry of Justice; Ministry of Economy, Trade and Industry)

### **(Use of Video Conferencing System)**

- Continue efforts to publicize the video conferencing system, so as to promote its use with a view to improving access to court IP proceedings in local regions.

### **<<Publication of Information on IP Dispute Resolution and Dissemination of Such Information in Foreign Countries>>**

#### **(International Conference on IP Dispute Resolution)**

- Convene an international conference on IP disputes, inviting legal community stakeholders of Asia including China, Korea and ASEAN countries, so as to improve dispute resolution capabilities of the entire Asian region, and to provide information on IP dispute resolution for the Japanese legal community and companies doing business overseas. (Short-term) (Ministry of Justice; Ministry of Economy, Trade and Industry)

#### **(Dissemination of Information on IP-related Laws to Foreign Countries and Investigation on Dispute Resolution in Foreign Countries)**

- For the enhancement of transparency of the Japanese IP-related laws and the development of the business environment for Japanese companies to do global business activities leveraging IPs, prepare and publicize high-quality English translations of the Japanese IP-related laws and make them available globally. (Short-term, Medium-term) (Ministry of Justice)
- Considering the increasing globalization of IP disputes, conduct research on the entire



framework and developments of IP dispute resolution systems of major countries, such as settlement through courts and IP offices, out-of-court settlement and amicable settlement, and publicize such research findings by such way as website. (Short-term, Medium-term) (Ministry of Justice)

### **(Expansion of Information Publication and Dissemination to Foreign Countries)**

- Out of the information pertaining to the IP dispute resolution system, bolster efforts to find meaningful information taken from specific cases, statistical information, etc., and, in consideration of the parties involved and user needs, disseminate this information throughout Japan and overseas.
- With regard to Japanese IP dispute resolution-related information, such as key IP-related court examples, continue to bolster efforts to disseminate this information overseas.

## **② Reinforcement of Assisting Global Business Activities by World's Leading Patent Examination**

### **<<Development and Reinforcement of Patent Examination System Responding to Era of 4th Industrial Revolution>>**

#### **(Development and Reinforcement of Patent Examination System)**

- With a view to assisting prosecution of rights responding to new technology, improve the IP examination system, such as creation of a special examination group for leveraging the experience and insights of examiners versed in IoT technologies and allowing them to work in collaboration. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

#### **(Development of Search Environment for Prior Arts)**

- In relation to the patent classification dedicated to IoT technologies which was newly created on November 2016, create further detailed classification by business sectors and purposes of use and assign it to Japanese technical literature, so as to grasp the status of development of such technologies and to allow applicants to more precisely predict whether the technology is patentable. In addition, continue discussion on international standardization of classification with a view to allowing identifying foreign technical literature according to such patent classification. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

- In order to ensure more appropriate protection of standard-essential patents, improve the search system through collaboration with standardization organizations and obtain proposed standards from such organizations from time to time. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Improvement of Access to Information for Protection and Use of Patent Related to IoT-related Inventions)**

- In order to allow applicants to more precisely predict whether their technologies are patentable, provide international and domestic users wide access to information on publicized patent examination case examples relating to new technologies with potential applicability to various technical fields such as IoT. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to ensure effective use of rights, streamline the options for utilizing business-related invention patents involving IoT, and make such information available to international and domestic users. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Review examination standards, etc. for software inventions closely related to IoT-related inventions for further clarification, and make such information available to international and domestic users. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**<<Achieving the World's Fastest, the Best Quality Patent Examination>>**

**(Disseminating Information on the World's Fastest, the Best Quality Patent Examination and Its Results)**

- In order for Japan to maintain and improve industrial competitiveness and keep its solid position in the international society, it is essential to ensure world's fastest, highest quality examination and make examination results available to international and domestic users in a timely manner. In view of this, set a target up to FY2023 to shorten the examination period, i.e. 14 months on average for the period required for obtaining rights (standard examination period), and 10 months on average for the period before receiving the first examiner's notice. In addition, for the maintenance and improvement of patent examination and to ensure granting of a "strong, wide-scope and useful patent right," further strive to improve the patent examination framework, including recruiting

appropriate examiners. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

- In order to support the timely acquisition of IP rights to be utilized by businesses for the implementation of strategic IP management, improve awareness-raising efforts for, and promote utilization of, "business strategy-adapted comprehensive examinations" which comprehensively handle the examination and granting of rights for patent, design and trademark applications. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to strengthen information publication of Japanese patent examination results in the global sphere, make available to domestic and international applicants and examiners of foreign IP offices detailed information on literature relied upon for drafting documents including reasons for refusals by patent examiners, in an easy-to-understand manner. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Discussion for Review of the Design System and Its Practices)**

- In order to allow Japanese companies to have a superior competitive position in the global environment by obtaining appropriate knowledge on design-based branding and using IPs including industrial design to appropriately protect corporate brand value, continue discussion for the prospective framework and system for the promotion of design to drive corporate branding which would be essential for strengthening the industrial competitiveness of Japanese companies. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Dissemination of Information and Discussion on Trademark System and Its Practices)**

- Accommodate the changing social landscape by improving the predictability of trademark examinations, and, with the aim of ensuring the clarity and ease of use of content for users, create English translations of the revised trademark examination standards and circulate these among overseas users through the JPO website. In addition, strive to disseminate Japanese trademark examination standards through country-based training sessions and information exchange sessions and other opportunities to disseminate Japanese trademark examination standards. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Some applicants are filing a large number of trademark applications with procedural

defects, causing some negative consequences such as applicants of later filed trademarks abandoning their applications. Measures should be also taken to address such issue. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

#### **<<Promotion of International Collaboration>>**

##### **(Dissemination and Sharing of Information on IP Systems Responding to the Era of 4th Industrial Revolution)**

- Considering the globalized nature of the shift in the industrial structure caused by the 4th Industrial Revolution, promote international collaboration and harmonization efforts, while providing international access to information on discussion and development of the Japanese IP system responding to the 4th Industrial Revolution. In addition, through such efforts, promote information sharing among foreign IP offices. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

##### **(Promotion and Popularization of Japanese Intellectual Property System in Developing Nations)**

- In order to support the global business activities of Japanese businesses in developing nations with growth potential, facilitate efforts aimed at promoting and popularizing the Japanese IP system in developing nations by dispatching Patent examiners and other Japanese IP personnel to developing nations, receiving IP personnel from developing nations, and using examination agreements with other countries to develop examination standards, practices and IP personnel. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Support the development and operation of IP rights enforcement legal systems in developing nations including ASEAN countries which are growing at fast pace. Also, in order to establish effective judicial procedures in these nations, support the cultivation of IP judicial personnel in developing nations, by means such as providing training aimed at those connected with the judicial systems in developing nations. (Short-term, Medium-term) (Ministry of Justice; Ministry of Economy, Trade and Industry; Ministry of Foreign Affairs)

##### **(Assistance in Patent Examination of Japanese Companies Doing Business Overseas)**

- In order to enable the prompt acquisition of patent rights overseas by companies seeking to expand globally, continue to promote user needs-focused cooperation with overseas patent offices to improve the efficiency of the patent examination highway in said offices and also

to expand the adoption of the patent examination highway. In addition, promote collaborative efforts to facilitate granting of patents while keeping our eyes on the situations of different countries. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Promotion of Collaboration with Overseas Patent Offices)**

- With regard to the framework for collaborative examination of international patent applications by Patent examiners in different countries, and in line with the Patent Cooperation Treaty (PCT), work together and engage in discussion with overseas patent offices. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Together with steadily implementing the Japan-U.S. Collaborative Examination Trial Program (two year program) begun in 2015, coordinate measures with the US Patent and Trademark Office aimed at further improving the existing framework after the end of the pilot period. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Dissemination of Information on Japanese Trademark System)**

- In order to assist Japanese companies with their global brand strategies, make use of training seminars, opinion exchange sessions and other opportunities geared towards countries intending to introduce a new type of trademark system to talk about Japan's experience with introducing its system. (Short-term) (Ministry of Economy, Trade and Industry)

**(Enhanced Collaboration with WIPO and Foreign IP Offices with a View to Improving the Convenience of International Trademark Registration System)**

- In order to improve convenience of international registration system for trademarks under the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks, promote efforts to address issues including support for accession by non-contracting states and improvement of practices in contracting states. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Strengthened IP Protection and Enforcement by Means of Trade Agreements)**

- Use future free trade agreements (FTA), economic partnership agreements (EPA) and other bilateral/multilateral agreement negotiations as an opportunity to proactively bring up the topics of strengthened IP protection and countermeasures against counterfeiting and piracy, and work to cultivate an internationally harmonious IP system with effective

legal enforcement, while continuing to effectively utilize the stipulations of high level international agreements, such as the Anti-Counterfeiting Trade Agreement (ACTA) and TPP Agreement, as the basis for stricter compliance. (Short-term, Medium-term) (Ministry of Foreign Affairs; Ministry of Finance; Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Ministry of Internal Affairs and Communications; Ministry of Justice)

### **③ Quality Enhancement for Patent Administration Services**

#### **(Reinforcement of Dissemination of Patent Information)**

- In order to lessen the burden on users with regard to accessing foreign patent information, promote further improvements of the English text search function for foreign patent literatures on the patent information platform. (Short-term) (Ministry of Economy, Trade and Industry)

#### **(Improving and Streamlining Patent Administration Duties)**

- Appropriately accommodate the increasingly diverse and complex industrial IP rights environment, and the accompanying increase in patent, utility model, design and trademark-related administrative duties. As part of the initiatives for improving and streamlining patent administration duties, promote demonstrative activities in accordance with an action plan (publicized on April 27, 2017) taking into account the possibility of use of AI technologies. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

## **3. Integrated Promotion of IP/Standardization Strategies to Lead Global Markets**

### **(1) Present situations and challenges**

In the wake of the 4th Industrial Revolution, further development of open innovation through collaboration among cross-sector businesses is expected. On the other hand, data collected and accumulated through new technologies including IoT, AI and big data is rapidly increasing in quantity and categories, and the importance of "data" as a new source of competitiveness is growing as a result of the exponential evolution of data processing performance and discontinuous evolution of AI technologies including deep learning.

In such situation, for devising the Japanese IP strategy, it is important to redefine IP from

a broader perspective and keep open innovation in mind, as well as to keep an open and closed strategy as the core, while implementing IP management employing a variety of approaches. To this end, it is essential to build an IP system which reflects the characteristics of the 4th Industrial Revolution while being firmly grounded in more broad-based IP management: acquisition of IP rights, keeping information confidential as trade secrets, further promotion of standardization strategy by companies and sectors, and strategies for acquisition and use of data.

With regard to standardization strategy, Japan has created the "Public-Private Strategies for Standardization" (created in May 2014), based on which Japan has been promoting active efforts for international standardization through public-private cooperation. In recent years, with the development of the 4th Industrial Revolution, the environment surrounding standardization efforts has been significantly changing. In particular, in the area of the social system for realizing "Connected Industries" in order to create new added value by connecting things and technologies, such as IoT, and the cutting-edge technology area where international competition is increasingly intense, the focus of standardization activities has been shifted from de-jure standards to forum/consortium standards, and proposals on standards on hybrid technologies are on the rise. In such situation, it has become difficult for industrial organizations and individual companies: which are based on traditional categories of products and technologies, to handle such standards. Therefore, the government-private standardization framework needs to be strengthened, including the reinforcement of functions of national research and development corporations such as the National Institute of Advanced Industrial Science and Technology and a review of the relevant systems.

In addition, it is important that smaller, highly-rated firms receive integrated support ranging from candidate identification through to standards creations, as well as support in acquiring overseas certification, in order to promote the standardization of smaller, highly-rated firms' superior technologies and products.

Further, in order to promote the international standardization, it is essential to foster human resources to support such standardization activities. Currently, there still remains a fundamental problem of insufficient quality and quantity of human resources capable of managing a company's response to standardization and international standardization activities as business executives and managers are not well-versed in standardization and are

still incapable of fostering human resources to support future international standardization activities. Based on this problem consciousness, Japan devised "Three Action Plans for the Development of Human Resources Responsible for Standardization"<sup>8</sup> on January 2017, setting goals for private companies to play central roles in the standardization activities of Japan, particularly regarding guidance on how their executives should conduct their efforts to foster human resources for standardization activities. It is necessary to further promote efforts to foster human resources for standardization activities according to guidelines including such Action Plans, and further reinforce support for such standardization of human resources in undertaking international standardization activities in collaboration with foreign governments and companies.

In addition, for the IP and standardization management, combined with business strategies under open and closed strategy in the global market, it is important to foster and maintain human resources versed in business and IP strategies in addition to standardization strategy who are capable of handling IP and standardization management integrated with business strategies (IP management human resources).

In particular, from the standpoint of securing talented human resources, Japan needs to discuss measures to invite human resources, especially highly skilled personnel, from other countries and leverage them so as to promote innovation through diversification and entry into overseas markets.

With regard to the protection of trade secrets, the "Trade Secret Management Guidelines" were revised in January 2015, the revised Unfair Competition Prevention Act (Act No. 47 of 1993) was enacted in January 2016, and the revised Customs Act (Act No. 61 of 1954) was enacted in June 2016, with the intent of all of the above being to create a stronger deterrent to trade secret infringement and to modify the scope of penalties to be in line with the changing IT environment. In addition, the "Confidential Information Protection Handbook" was created in February 2016 to provide examples of measures for dealing with the leaking of confidential information, and continuous circulation and popularization of this Handbook is necessary. Further, due to increase of digital information, further improvement in light of the development of the environment connectable through the Internet is necessary.

With regard to collaboration between the public and private sectors, the "Public-Private Strategic Council for Countermeasures against the Outflow of Trade Secrets" released an action statement in January 2015, declaring the intent of the Council members' to help foster

---

<sup>8</sup> [http://www.meti.go.jp/policy/standards\\_conformity/files/jinzaiactionplan.html](http://www.meti.go.jp/policy/standards_conformity/files/jinzaiactionplan.html)



a "society that has zero tolerance regarding the misappropriation of trade secrets," and in line with this statement, a "Trade Secret Public-Private Forum" has been held since FY2015 as an opportunity to exchange information about the latest methods and measures available for dealing with the leaking of trade secrets. Due to increase of corporate trade secrets and the increased risk of information leakage, it is essential that the same initiatives be continued in the future.

## **(2) Measures for the Future**

Bearing the present situations and challenges in mind, in order to enhance industrial competitiveness in response to the 4th Industrial Revolution era, relevant ministries and agencies are to promote the following programs in order to disseminate IP management focused on open and closed strategies, while keeping their eyes on open innovation.

### **① Reinforcement of Standardization Strategies of Companies and Business Sectors**

#### **<<Reinforcement of Government-private Collaboration for Standardization>>**

##### **(Reinforcement of Government-private Collaboration for Standardization)**

- Discuss future framework for the standard certification system, including the government-private collaboration framework, for the promotion of international standardization leveraging excellent technologies and services of Japan through government-private cooperation. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; relevant ministries and agencies)

##### **(International Standardization of Social Infrastructure and Cutting Edge Technology Area)**

- Strengthen government-private standardization framework with a view to promote international standardization, while grasping developments in international standardization activities including consortium-type standards, in addition to de jure standards. More concretely, discuss prospective cross-sector projects by the use of "New Market Creation Standardization System," i.e. a system for creation of standards based on the standards of top domestic top business, and by the use of national research and development corporations with cutting-edge technology, such as the National Institute of Advanced Industrial Science and Technology. For example, in the area of smart manufacturing, create a reference model based on discussions at forums/consortiums,

discuss appropriate data formats, and strive for international standardization of data format in collaboration with the stakeholder countries including Germany. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Promotion of Standardization for Smaller, Highly-rated Firms)**

- Continue publicizing domestic and overseas examples of standardization and their significance, as well as relevant support organizations, in order to push the standardization of stand-out technologies and products by smaller, highly-rated firms. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- For strategic use of the standardization system by smaller, high-rated firms, promote standardization support partner organization's collaboration with Comprehensive Intellectual Property Support Counters, Yorozu Support Centers and SME support entities. In addition, in order to support efforts for smaller, highly-rated firms to implement their stand-out technologies and products in the society while also earning profits, discuss a structure for providing these firms with one-stop service for drafting and proposing standardization and IP strategies according to their business strategies, through collaboration among stakeholder organizations and the Japanese Standards Association (JSA). (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Support standardization of excellent technologies and products of local smaller, highly-rated firms, through means such as the "Partnership System for Support of Standardization Utilization" to promote standardization of smaller, highly-rated firms' technology and products, utilizing regional revitalization promotion subsidies, and by working together with a wide array of relevant parties, including local governments, industrial support organizations, regional financial institutions and certifying bodies. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Assisting SMEs in Obtaining Foreign Accreditations)**

- Promote efforts to support smaller, highly-rated firms doing business overseas in obtaining regulatory certifications, including creation of centers for consultation on essential testing data to satisfy local regulations and procedures for obtaining certifications, providing information seminar and preparation of brochures. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

## <<Enforcement of Developing Human Resources Capable of Standardization Through Industry-academia-government Collaboration>>

### (Reinforcement of Developing Human Resources for Standardization)

- Continue implementing human resources development programs aimed at cultivating personnel capable of serving as the secretaries and chairpersons at international standardization conferences, at equipping younger personnel with the capabilities, bargaining power and management ability to undertake international standardization. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In line with "Three Action Plans for the Development of Human Resources Responsible for Standardization" prepared in January 2017, foster human resources capable of management of standardization constituted by experts including standardization specialists, corporate executives and patent attorneys supporting standardization, through government-private-academia collaboration. More concretely, continue promoting government's dissemination activities for corporate executives and appointment of a Chief Standardization Officer (CSO) for each company. Further, promote the creation of new university classes spanning multiple institutions on rule-making strategies of individual business sectors through university-industry collaboration. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In cooperation with the Japanese Standards Association (JSA), promote dissemination of the "Standard Development Qualification System," a new system on qualification for standardization specialists created in March 2017. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Conduct a discussion on clarification of roles of patent attorneys in standardization-related services. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

## <<Standardization Strategies for Individual Technology Area>>

### (Promoting International Standardization Strategy for IoT with a View to Respond to the Era of the 4th Industrial Revolution)

- Promote development and verification of common infrastructures for technologies for connecting a large number of IoT devices in a speedy and efficient way. In addition, promote efforts toward international standardization through government-industry-academia collaboration in the areas anticipating the 4th Industrial Revolution such as IoT service, smart factory and automated driving system, by implementing verification of

advanced system for smart factories (for sharing and using data accumulated by sensors) by 2020 in 50 places in Japan. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry)

- Develop structure for strategic international standardization activities reflecting the latest development in the information and communications area, continue attending regular standardization conferences, cooperate with foreign IoT-related organizations, and foster young human resources for standardization. Further, promote the research and development and international standardization of ICT technologies in an integrated way. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications)

## **② Framework for IP Management Under Open & Close Strategies**

### **<<Cultivation and Maintenance of Human Resources for Intellectual Property Management>>**

#### **(Human Resources Development Capable of Supporting the Construction of a Comprehensive IP Strategy)**

- Perform ongoing strengthening and implementation of efforts aimed at cultivating human resources within SMEs and venture businesses to support the development of comprehensive IP management, taking into account patents, designs, trademarks, trade secrets, etc., and all other relevant aspects ranging from business model discussion to the exercising of rights, via legal actions, etc.; and in order to facilitate this cultivation, assist the development of environments which allow for the comprehensive provision of IP-related legal knowledge as well as IP management strategy expertise connected with business strategy and reflective of overseas information, etc. (Short-term) (Ministry of Economy, Trade and Industry)

#### **(Fostering Global IP Human Resources)**

- For nurturing IP management human resources capable of doing activities in international sphere, strive for dissemination and use of study materials developed for corporate executives, executive candidates and managers of business planning sections and business units in the private sector. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Promotion of Attracting Highly-skilled Foreign Workers)**

- Leveraging the Points-based System for Highly Skilled Foreign Professionals which was revised in April 2017, continue to promote inviting foreign human resources with highly advanced skills and knowledge who are expected to contribute to Japanese economic growth. (Short-term, Medium-term) (Ministry of Justice)

**<<Enhancing Protection of Trade Secrets>>**

**(Circulation and Popularization of the Confidential Information Protection Handbook)**

- Considering the development of the environment where there is an increase in information in digital format connected through the Internet, improve the content of the Trade Secret Management Guidelines and Confidential Information Protection Handbook, and conduct dissemination activities to publicize systems under the Unfair Competition Prevention Act and the Confidential Information Protection Handbook. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Creation and Popularization of the "Confidential Information Protection Handbook for Universities")**

- Disseminate and circulate a "Confidential Information Protection Handbook for Universities" to be used by universities when concluding employment contracts with students, etc., in order to clarify the appropriate handling of confidential information that university employees may be privy to during joint research with companies and others. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Augmentation of 'One-stop' Support for Trade Secret Management)**

- Use IP strategy, including trade secret management, consultation centers and portal websites to raise awareness and popularize the utilization of information resources available on the homepage as well as the information available in nationwide seminars, e-learning content and other resources geared primarily towards SMEs. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Dissemination of Trade Secret Time-Stamped Information Storage Service)**

- Dissemination and awareness-raising for industries, etc. of a long-term, secure storage system (launched into operation at the end of FY2016) for time-stamped electronic

document data representing companies' confidential technological know-how, etc., with said system to be used to facilitate the substantiation of claims made in trade secret leakage cases or to demonstrate prior use rights. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Promotion of Public-Private Collaboration)**

- Hold a "Trade Secret Public-Private Forum" of public and private-sector practitioners to confidentially exchange information about the latest methods and measures available for dealing with the leaking of trade secrets, and raise awareness by providing information. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Collaboration with Investigative Authorities)**

- Utilize the "Trade Secret Public-Private Forum" to foster greater collaboration with the Ministry of Economy, Trade and Industry, National Police Agency, prefectural police, Public Security Investigation Agency, Information-Technology Promotion Agency of Japan and others, and to foster greater awareness within the industrial sector. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry, National Police Agency; Ministry of Justice)

## **II. Promotion of Regional Revitalization and Innovation Utilizing the Potential of IP**

### **1. Utilization and Enhancement of IP to Support Proactive Agriculture, Forestry and Fishery and Food industries, etc.**

#### **(1) Current Situation and Challenges**

The world's food market size is expected to grow from 340 trillion yen in 2009 to 680 trillion yen in 2020. As Japanese food is becoming increasingly popular around the world, it is necessary to develop and expand sales channels by promoting quality Japanese agricultural products and foods to the world and capturing the growing global demand. In addition, in order to secure the competitiveness of Japanese agricultural products amid the globalization of agricultural product trade, it is essential to maintain their qualitative advantage.

Amid such situation, the second stage of the Abenomics policy package calls for agricultural reform under the slogan "increasing income for hard-working farmers in rural areas." The Japan Revitalization Strategy 2016 (cabinet approval on June 2, 2016; hereinafter referred to as the "Revitalization Strategy 2016") also includes the "promotion of proactive agriculture, forestry and fishery and reinforcement of exports" among the key policy measures, clarifying the country's direction of supporting hard-working farmers under cooperation of the government, agriculture industry and business community.

In this context, the agriculture, forestry and fishery industry is positioned as a "knowledge-based/information-based industry," as various kinds of intellectual property are created in the course of production activities. In order to promote proactive agriculture utilizing the strengths of Japan's agricultural industry, it is important to establish business models making use of IP and address IP management to support such models, with reference to the initiatives in the general industrial field, which has a lot in common with the agricultural field.

Against this backdrop, the Ministry of Agriculture, Forestry and Fisheries is promoting initiatives based on the Ministry of Agriculture, Forestry and Fisheries Intellectual Property Strategy 2020, which cover the discovery, creation and utilization of regional brands and improvement of their brand value through the utilization of the geographical indication (GI) protection system, as well as promotion of strategic IP management in research and development. The Policy Package for Enhancing Competitiveness of Japan's Agriculture formulated in November 2016 states that Japan will promote utilization of standards, certification and IP systems, and create a new organization that will specifically work for the mission of promoting export of agricultural, fishery and forestry products and foods. In April this year, the Japan Food Product Overseas Promotion Center (JFOODO) was established under the Japan External Trade Organization (JETRO) for carrying out promotion and branding activities, etc. for Japan-produced food.

In particular, there is a need for promptly and properly addressing such issues as the

distribution of counterfeit/piracy goods and technology leakage overseas, which are on the rise in line with the globalization of the food industry and establishment of Japanese agricultural, forestry and fishery brands in recent years. For example, the Shine Muscat, a plant variety developed in Japan, has not been registered in overseas countries. Therefore, even though trees of this variety sell for high prices overseas as a plant native to Japan, the original developers are not receiving their share of the profits. In addition, exported fruits are exposed to competition with cheap local products and imported products from other countries. It is a fact that this product is on the edge of losing the market that it could have acquired. Moreover, people involved in the production, research and development of agricultural products often seem to be careless and indifferent to the protection and utilization of intellectual property that they sometimes easily disclose agricultural production technologies that could be registered as IP to external parties. In order to realize proactive agriculture, forestry and fishery in the future, each one of the people involved in the agricultural industry is expected to gain an understanding of the importance of IP and utilize it. It is an urgent issue to raise awareness on IP protection and utilization and support IP protection in the agriculture, forestry and fishery fields in overseas countries.

As for the geographical indication (GI) protection system that started in June 2016, 30 products are registered as of April 2017. The registration of products has brought about some positive results, such as increased publicity and expanded trade. In line with the enforcement of the amended Geographical Indication (GI) Act (Act on Protection of the Names of Specific Agricultural, Forestry and Fishery Products and Foodstuffs (Act No. 84 of 2014) in December 2016, the mutual protection of GIs under international agreements will be enabled in the future. Therefore, it is important to proactively promote the protection of GIs in overseas countries and strive to disseminate GI products.

Moreover, one of the effective ways to develop overseas markets and strengthen the country's export power is to make use of standards and certifications that are widely used in overseas markets to appeal to trading partners overseas. The first step is to adapt to the standards that are widely used overseas and then the next step is to promote standardization that contributes to communicating the strengths of Japan. For this purpose, in relation to the JAS system,<sup>9</sup> Japan's standard and certification framework for agricultural, forestry and fishery products and foodstuffs, Japan needs facilitate the strategic establishment and utilization of standards with an eye toward making appeals to overseas companies, while also

---

<sup>9</sup> Standards established by the Minister of Agriculture, Forestry and Fisheries for the quality of agricultural, forestry and fishery products and food products. A voluntary system under which companies certified by a third party institution are allowed to use the JAS mark. In order to expand the scope of JAS, the “bill to partially amend the Act on Standardization and Proper Quality Labeling of Agricultural and Forestry Products and the Act on the Food and Agricultural Materials Inspection Center, Independent Administrative Agency” was submitted to the 193th session of the Diet (February 2017).



promoting international standardization using said system as a tool.

The sustainable sourcing code for food for the Tokyo 2020 Olympic and Paralympic Games set requirements for food safety, environmental conservation, and industrial safety. Recently, products granted with global GAP certification, etc. were approved as meeting said code. Also, from the viewpoint of increasing exports of agricultural products and strengthening the competitiveness of Japanese agricultural industry, it is important to take this opportunity to promote the acquisition of global GAP certifications and develop international standards based on Japan-made GAP certifications toward the expansion of export.

Furthermore, agriculture today and in the future cannot depend solely on farmers' experience and native intuition amid a shrinking workforce caused by the aging of farmers and a lack of young farmers. For this reason, in light of the current situation where the 4th Industrial Revolution (Society5.0) is about to expand, the realization of smart agriculture using AI, IoT and robot technologies is highly anticipated. It is necessary to carry out research and development toward the realization of smart agriculture, while also promoting such initiatives as the development of the infrastructure for linking agricultural data, which will promote data utilization in the agricultural field, as well as data standardization and protection of know-how, etc.

In addition, Japan also need to continue with the efforts for strategic IP utilization and new innovation creation in the agriculture, forestry and fishery field, including the promotion of strategic management in research and development and bolstering of IP strategies for open innovation to be conducted in collaboration with other fields.

**[Intellectual property rights, etc. that can be utilized for establishing brands of agricultural, forestry and fishery products]**

| Item   | Competent ministry/agency                       | Details   | Example of use                  |
|--|---|---|---------------------------------|
| Geographical indication (GI) protection system (Act on Protection of the Names of Specific Agricultural, Forestry and Fishery Products and Foodstuffs) | Ministry of Agriculture, Forestry and Fisheries | Protects names of products whose quality, reputation or other established characteristic is essentially attributable to their place of production | ○Kobe Beef<br>○Shimonoseki Fugu |
| Breeder's right based on the registration of plant varieties   | Ministry of Agriculture, Forestry and Fisheries | Right to the exclusive use of a new plant variety that is cultivated for the production of agriculture, forestry and fishery products             | ○Oborozuki<br>○Shinano Gold     |
| Trademark right (Trademark Act)  | Japan Patent Office                             | Right to the exclusive use of a name or mark used for goods or services   | ○Amao                           |

|  |   |  |   |
|--|---|--|---|
| Regional collective trademark (Trademark Act)    | Japan Patent Office                     | Right to the exclusive use of a trademark consisting of the combination of a place name and product name                                 | ○Sekii Aji<br>○Sekii Saba   |
| Patent right (Patent Act)                        | Japan Patent Office                     | Right for inventors to exclusively exercise their invention rights   | ○Cultivation method for polyhedral melons and frame for the cultivation of cube melons (Kakumero) |
| Utility model rights (Utility Model Act)         | Japan Patent Office                     | Right to the exclusive use of a device that relates to the shape or structure of an article or combination of articles                   | ○Improved farm equipment  |
| Design rights (Design Act)                       | Japan Patent Office                     | Right to the exclusive use of the design of shape, patterns or colors of an article with exclusive and aesthetic appearance              | ○Easy-to-use pruning shears   |
| Trade Secret (Unfair Competition Prevention Act) | Ministry of Economy, Trade and Industry | Technical or business information useful for commercial activities such as manufacturing or marketing methods that is not publicly known | ○Information concerning parents of an F1 variety e.g. Yubari Melon                                |

Source: Prepared by the Intellectual Property Strategy Promotion Bureau based on the "Strategic Intellectual Property Utilization manual" (formulated by the Ministry of Agriculture, Forestry and Fisheries in April 2014)

The export volume of Japanese alcoholic beverages is increasing every year. The export value in 2016 was approximately 43 billion yen, which is approximately three times the value ten years ago, marking a record high for five consecutive years. Against this backdrop, the National Tax Agency carried out system reform in October 2015 to increase the brand value of Japanese alcoholic beverages by further promoting the utilization of GI. In addition to disseminating information on this effort, it also working on the designation of the national-level GI "Nihonshu" (Japanese sake) based on the amended system. In light of the fact that the government's policy for export promotion titled "Issues in Promoting Export of Japanese Alcoholic Beverages and Direction of Countermeasures" (revised in March 2017) also refers to promoting the utilization of the GI system for alcoholic beverages, it is necessary to implement the above initiatives in a constant manner.

## (2) Measures for the Future

In light of the current situation and challenges discussed above, the following initiatives are being promoted by relevant ministries and agencies to promote the protection, brand creation and overseas expansion of plant varieties, products, etc. utilizing IP.

## ① **Effective Use of Agriculture-Related IP, Including Geographical Indications and Regional Collective Trademarks**

### **(Promotion of the Ministry of Agriculture, Forestry and Fisheries IP Strategy 2020)**

- In order to promote IP strategies in the agriculture, forestry and fishery field steadily, and boldly implement IP strategies based on the Ministry of Agriculture, Forestry and Fisheries IP Strategy 2020 (May 2015), while also carrying out periodical evaluations and review of the strategies and measures as necessary. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

### **(Promotion of Geographical Indication (GI) Utilization for Agricultural, Forest and Fishery Products and Food Products)**

- In order to promote the use of the geographical indication (GI) system for agricultural, forest and fishery products and food products, continue to develop consultation centers for GI registration application-related issues, promote public awareness of the GI system, and promote a better understanding of the importance of the GI system. In addition, in order to facilitate the distribution of GI products, support the commercialization of GI products by promoting the proper use of GI marks on advertisements, the Internet, and restaurant menus, etc. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

### **(Protection Overseas of Geographical Indications (GI) for Agricultural, Forest and Fishery Products and Food Products)**

- Based on the amended GI Act, which enables the protection of Japanese GIs in overseas countries based on bilateral agreement, etc., promote the mutual protection of GIs and overseas IP infringement countermeasures for Japanese agricultural, forest and fishery products and food products, including GI products. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

### **(Promotion of Branding)**

- In order to promote IP protection and utilization in the agricultural, forest and fishery field, cooperate with the Japan Patent Office in providing the following services at the Comprehensive Intellectual Property Support Counters, which were established in each prefecture under the Japan Patent Office: [1] conventional consultation services

regarding patent, trademark, trade secret, etc.; [2] one-stop consultation services regarding the intellectual property system related to the agricultural, forest and fishery field, i.e., the GI system and variety registration system; and [3] consultation services for supporting branding utilizing both the GI system and the regional collective trademark system. Also, to enrich the consultation services and promote regional brands even more, carry out training sessions, etc. on intellectual property in the agricultural, forest and fishery field for personnel at the Comprehensive Intellectual Property Support Counters, etc. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry)

**(Clarification of Standards for Determining the Scope of Breeder's Right, etc.)**

- Consider the standards for determining the scope of exclusive right of breeders under the Plant Variety Protection and Seed Act, including proper proof of infringement. Also, consider measures to make the system easier for breeders to utilize, such as improving access to plant variety registration information. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Study the Relationship between the Plant Variety Protection and Seed Act and the Trademark Act)**

- Consider solutions for the issue that names of plant varieties for which applications for plant variety registration are filed under the Plant Variety Protection and Seed Act are sometimes forced to be changed before their registration in relation to trademarks for which applications are filed or which are registered afterwards. (Short term) (Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry)

**(Expanded Support for the Overseas Expansion of the Seed and Seedling Industry)**

- In order to strengthen protections overseas of plant varieties developed in Japan, promote the overseas expansion of the seed and seedling industry by carrying out comprehensive measures, including support for application for plant variety registration overseas and investigation on infringement. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Elimination of Fees for Overseas Provision of Plant Variety Registration Examination Results)**

- In order to promote the registration of Japanese plant varieties overseas, develop a system for providing the results of plant variety registration examinations conducted in Japan to overseas examination authorities free of charge. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Strengthening Support for Rights Infringement Measures)**

- Given the large number of registered carnation varieties that have been added to the plants covered by the plant variety DNA analysis and identification service offered by the National Agriculture and Food Research Organization, create a genetic database of registered carnation varieties which allows for a rapid response when infringements occur. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Expansion of Scope of Plant Breeder's Right)**

- In order to promote the development of new plant varieties by ensuring the legitimate interests of those with plant breeder's rights, work to expand the scope of plant breeder's rights beyond the Plant Variety Protection and Seed Act to include autologous propagation by agricultural professionals, keeping in mind the impact this may have on agricultural production sites. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Appropriate Protection Overseas of Plant Varieties)**

- In order to facilitate plant variety protection overseas, utilize the East Asia Plant Variety Protection Forum to help implement cooperative efforts such as hosting awareness-raising seminars and examination technology training for East Asian countries. Also, help these countries with developing an operational framework for plant variety protection systems, while also promoting participation in the International Convention for the Protection of New Varieties of Plants (UPOV Convention) amended in Geneva in 1991, which covers a wider range of plant varieties. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

### **(Improvement of Brand Value of Japanese Alcoholic Beverages)**

- In order to improve the brand value of Japanese alcoholic beverages, continue to thoroughly publicize and encourage use of the geographical indication (GI) system for alcoholic beverages. In addition, strive to raise the profile of GIs for alcoholic beverages under public-private cooperation, while also working with countries which have also introduced a GI system for alcohol to create a framework for ensuring appropriate protection, thereby promoting the export of Japanese alcoholic beverages. (Short-term, Medium-term) (Ministry of Finance)

### **(Promotion of Japanese Food and Food Culture Overseas)**

- In order to accelerate export of Japanese agricultural, forestry and fishery products through communicating the attraction of Japanese food and food culture, promote understanding of Japanese food and food culture overseas and collaborate with overseas restaurants that proactively use Japanese ingredients. Specifically, aggressively conduct initiatives such as a promotion project utilizing various content, human resource development project for disseminating Japanese food and food culture, collaboration and quality improvement support project for Japanese restaurants overseas, and project for strengthening Japanese food utilization networks. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

## **② Promotion of Standardization through Strategic Establishment, Utilization, etc. of JAS**

### **(Strategic Establishment and Utilization of JAS and Promotion of Internationalization)**

- In order to strengthen Japanese food industry's competitiveness, strategically establish and utilize JAS that will contribute to promoting the industry's strengths. In addition, disseminate the content of JAS to Asian countries, while also working on the establishment of international standards based on JAS. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

### **(Promotion of International Standardization in the Agricultural Production Field)**

- Promote the acquisition of the international standard GAP certification. Promote negotiations with relevant parties for establishing the Japan-made GAP certification

(JGAP Advance) as an international standard (acquisition of GFSI<sup>10</sup>) under public-private collaboration. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Promotion of International Standardization in Food Industries)**

- Promote public-private sector collaboration to augment support systems for popularizing Hazard Analysis and Critical Control Point (HACCP)<sup>11</sup> in Japan, through the implementation of HACCP training, and also construct regulation and verification mechanisms for food safety control, including international regulations, which utilize Japan-led, internationally applicable HACCP as a base. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Promotion of International Standardization in the Fishery Field)**

- Establish affordable standard and certification systems that fit the current status of the Japanese fishery industry where many small-sized fishing entities are operating various kinds of fishery business. Promote initiatives for the internationalization of such systems under public-private collaboration and develop an environment for export. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**③ IP Strategies for Promoting Smart Agriculture**

**(Supporting Research on and Introduction of Smart Agriculture)**

- Promote R&D and demonstration efforts for promoting smart agriculture, while also promoting the establishment of a system with which inexperienced workers will be able to learn know-how passed down from experienced farmers in a short period by utilizing AI and other advanced technologies. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries; Cabinet Secretariat; Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry)

---

<sup>10</sup> Global Food Safety Initiative. Established in 2000 by global food service companies (about 400 companies from 70 countries). An institution to approve standards and certification schemes endorsed by members for the purpose of enhancing food safety and consumer confidence.

<sup>11</sup> A process management system that constantly monitors and records processes: from the receipt of raw materials to the finished products, which are especially important to the prevention of predicted hazards, such as contamination with microorganisms and metals.

#### **(Promotion of Agricultural Data Utilization)**

- Work for the establishment of the Agricultural Data Collaboration Platform, which facilitates data sharing and utilization in the agriculture field. In order to secure interoperability and portability of agricultural data for data sharing and comparison among different IT systems, utilize the Standardization Guidelines and verify the connectivity and compatibility of data, etc. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries; Cabinet Secretariat; Cabinet Office; Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry)

#### **(Raising Awareness about Intellectual Property management among Agriculture-related Professionals)**

- Consider measures to raise awareness of farmers and agriculture-related professionals concerning the value and importance of superior agricultural technologies, know-how, etc. as intellectual property, and develop guidelines, etc. that illustrate IP protection and management methods in an easy-to-understand manner. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

### **④ Strengthening IP Management in R&D in the Agricultural, Forestry and Fishery Field**

#### **(Strengthening IP Strategy within a Knowledge Aggregation and Utilization Platform)**

- Implement appropriate IP management geared towards new innovation creation in the agriculture, forestry and fisheries industries and the resolution of existing business problems, utilizing a "Knowledge Aggregation and Utilization Platform" intended as a mechanism for promoting new industry-academia collaboration within the agriculture, forestry and fisheries industries. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

#### **(Strengthening of IP Strategy at Agriculture, Forestry and Fisheries-related National Research and Development Agencies)**

- Promote IP management, including human resources development, at the National Agriculture and Food Research Organization and other agriculture, forestry and fisheries-related national research and development agencies, in order to facilitate the effective and efficient commercialization of research results from those research and development



agencies which play a central role in agriculture, forestry and fisheries-related research and development. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(IP Management in the Context of Collaboration and Cooperation between Agriculture, Forestry and Fisheries Sectors and Dissimilar Sectors)**

- In order to provide technological support for regional revitalization and improved competitiveness in the agriculture, forestry and fisheries sectors, promote research and development via collaboration between agriculture, forestry and fisheries sectors and dissimilar sectors, utilizing advanced technologies, such as AI, IoT and robotics, which is subject to commercialization-focused IP management. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Strengthening Collection and Utilization of Genetic Resources and Genetic Information in the Agriculture, Forestry and Fisheries Sectors)**

- Accelerate development and IP protection and utilization of new varieties rooted in regional needs by promoting the following under proper IP management: [1] establishment of a Japanese gene bank through bilateral joint research on various genetic resources, etc., which are necessary materials for cultivating valuable varieties; [2] analysis of genetic information; and [3] development and dissemination of effective breeding technologies. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

**(Stimulating New Variety Development under Public-Private Collaboration)**

- Based on the Act on Repeal of the Main Crop Seeds Act, etc., strengthen the seedling infrastructure and provide private companies with public institutions' knowledge concerning seed and seedling production under proper IP management, in order to promote the market participation of private companies and enhance the Japanese agricultural industry's competitiveness by accommodating diversifying needs. (Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

## **2. Promotion of IP Utilization by Regional Companies and SMEs and Industry-Academia/Inter-Industry Collaboration**

### **(1) Current Situation and Challenges**

In order for Japan to cope with intensifying global competition, the 4th Industrial Revolution and other environmental changes and achieve constant development and growth, amid serious social challenges, such as rapid depopulation, aging population, population concentration in Tokyo, and hollowing out of the domestic manufacturing industry due to globalization, it is essential to promptly promote innovation creation in individual regions based on the actual situation of each region, and thereby stimulate regional economies. In this regard, SMEs and smaller, high-rated companies that support regional economies and are capable of making flexible management decisions and ventures businesses that are capable of taking quick and bold actions are expected to play an important role in innovation creation and regional industrial revitalization by raising their IP awareness and proactively utilizing IP.

Moreover, in order to make use of the outstanding high research capabilities of Japanese universities, colleges of technology, public research institutions, etc. for creating research results that contribute to society, it is important to promote proactive collaboration among these institutions and the industry, which includes SMEs, smaller, high-rated companies, and venture businesses, under proper IP management strategies.

#### **(i) IP Utilization among Local SMEs**

Vigorous SMEs and smaller, high-rated companies that lead regional economies are the source of the country's industrial competitiveness. Therefore, it is extremely important to promote IP utilization by these companies.

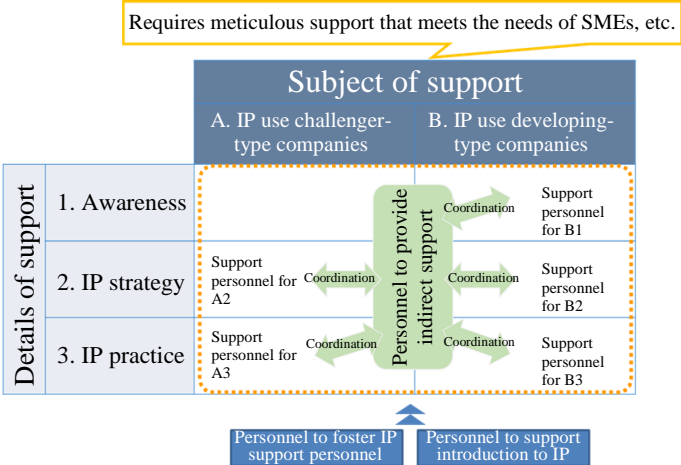
The Intellectual Property Strategic Program 2015 (approved on June 19, 2015, by the Intellectual Property Strategy Headquarters) and Intellectual Property Strategic Program 2016 sorted SMEs into two types in relation to the strengthening of IP strategies. The first type of SME is the "Intellectual Property Use Challenger Type," which consciously seeks to acquire rights for the IP it possesses, and then boldly uses these in the independent development, production and expansion: including overseas expansion, of its own products; while the second type is the "Intellectual Property Use Developing Type," which does not possess IP (particularly technology) for which rights can be acquired, has little awareness of IP, has fixed products, sales channels and customers, and is often in the position of being a subcontractor.

In the case of intellectual property use challenger-type SMEs, we need to continue with the further development of an environment for promoting IP rights acquisition, support for domestic and international commercialization utilizing IP, and support for IP protection, including anti-infringement measures. In addition, in order to help intellectual property use challenger-type SMEs in creating profits from their innovations, it is also required to provide

bolder support for IP management from the business management perspective through various means, including knowhow concealment and utilization of contracts.

On the other hand, efforts for raising IP awareness need to be strengthened even more for intellectual property use developing-type SMEs as they have poor IP awareness. These SMEs often have a misconception that there is no incentive for them to acquire IP rights as right utilization, including warning and licensing, has nothing to offer for them. However, intellectual property is an important element in management strategies, as it constitutes a source of future cash flow and provides opportunities to call attention to their R&D capability and develop new sales channels. It is necessary to open the eyes of the management of intellectual property use developing-type SMEs and personnel involved in SME support, disseminate the above-mentioned perspective toward IP, and promote IP utilization among them. At the same time, it is also necessary to raise awareness for knowhow management in order to prevent technological leaks.

**[Matrix for IP support personnel]<sup>12</sup>**



SME support is largely sorted into three categories of "raising awareness," "IP strategy development" and "support for practical works related to IP right protection and utilization," and each of the above need to be supported by suitable human resources. To provide meticulous support based on SMEs' needs, it is important to thoroughly promote collaboration among support institutions. In September last year, the Japan Patent Office formulated the Regional Intellectual Property Revitalization Action Plan, and based on the plan individual institutions are promoting local SME support in the IP field under mutual collaboration. However, some say that it is still unclear for local SMEs where to seek technological consultation. Therefore,

<sup>12</sup> Prepared by the Intellectual Property Strategy Promotion Bureau based on the "Investigation on IP Support Personnel at Local SMEs" (p.5) conducted as the FY2015 Program for the Examination and Analysis of IP Support Measures for SMEs.

at the regional level, the Comprehensive Intellectual Property Support Counters established in each prefecture, Yorozu Support Centers, Standardization Utilization Support Partner Institutions, and local governments need to cooperate with each other in further strengthening local support systems. In addition, some also pointed out the issue of the weak connection between IP awareness activities and support services for individual companies. Therefore, it is also necessary to invent a system to smoothly connect support in one phase to another.

At the same time, it is also hoped that those parties which work closely with and support SMEs, such as financial institutions, SME management consultants, and chambers of commerce and industry, will, in their management consultation with SMEs: pay attention to companies' intellectual assets (intangible assets, such as human resources, technologies, organizational power, customer network, brands, which can be the source of companies' competitiveness; a broad concept that includes intellectual property) that are not reflected in financial data but can be a source of value creation and differentiation; contribute to motivating SMEs with regard to intellectual asset and property; and connect them to proper institutions as necessary. For this reason, it is also necessary to raise intellectual asset/property awareness of SME supporters.

In particular, regional financial institutions are working on the quality improvement of their financial agency services by exercising their evaluation capability in order to share a common view on management issues with business managers and providing consulting services that go beyond mere financial advice, such as business matching, in collaboration with external institutions. These regional financial institutions are expected to further promote their efforts toward the revitalization of regional economies.

Since FY2013, the Financial Services Agency has promoted financing based on corporate feasibility assessments. The FY2016 Financial Administration Policy also stated that "the FSA has encouraged financial institutions to properly evaluate their partners' business and potential for growth without excessive dependence on collateral or security (corporate feasibility assessments)." It promotes constant organizational efforts to provide advice and finance based on ongoing corporate feasibility assessments, which contribute to enhancing the value of customer companies.

In addition, the Ministry of Economy, Trade and Industry created and announced the "local benchmark" in March 2016 as an index for diagnosing the management of local companies (six indices concerning financial information and four perspectives concerning non-financial information, including IP information), with a view toward encouraging regional financial institutions and support institutions to have deeper dialogue with companies and provide financing and business support based on corporate feasibility assessments, without depending on collateral or personal security.

Moreover, the Ministry of Economy, Trade and Industry has been constantly promoting IP asset management for creating revenues by taking note of companies' unique intellectual assets

and promoting their utilization by effectively combining them. In order to compile this intellectual asset management into a story and effectively communicate it to stakeholders (business partners, customers, stockholders, investors, employees, local communities, etc.), the Ministry creates and publicizes Intellectual Asset Management Reports so as to improve stakeholders' understanding and evaluation and contribute to further management improvement.<sup>13</sup>

Furthermore, in order to promote IP utilization in financing in particular, the Japan Patent Office has promoted its efforts for the expansion and improvement of the Intellectual Property Business Valuation Report. It is necessary to promote corporate feasibility assessment, financing and business support based on such assessment, and also assist in the revitalization of local industries with high ripple effect on regional economies, by making use of the local benchmarks, Intellectual Asset Management Reports and the Intellectual Property Business Valuation Report as stated above in visualizing the value and evaluation of businesses utilizing IP and other intellectual assets under cooperation among corporate managers and financial institutions and support institutions.

Furthermore, in light of the fact that there are issues that should be addressed by individual regions as a whole, it is strongly hoped that local governments will play a core role in realizing an autonomous and sustainable society that exercises regional strengths utilizing IP, by promoting measures from different perspectives, such as regional industry revitalization rooted in local communities, tourism industry revitalization utilizing creative content, such as animation, comics, movies, music, video games and broadcast programs, domestic and overseas market development for regional food, agricultural, forestry and fishery product brands utilizing geographical indications (GI) and regional collective trademarks, and IP creation education promoted in collaboration with the local community toward the cultivation of human resources to lead the future of individual regions.

#### (ii) Promotion of Industry-Academia/Inter-Industry Collaboration

Efforts for stimulating industry-academia/inter-industry collaboration is extremely

---

<sup>13</sup> International debates on companies' value creation and reporting were carried out under OECD and other frameworks, following the announcement of the Guidelines for Disclosure of Intellectual Assets Based Management (October 2005) formulated by the Ministry of Economy, Trade and Industry as a reference for companies in 2005. Based on these debates, the International Integrated Reporting Council (IIRC) (international coalition organization consisting of regulators, investors, companies, standard setters, the accounting profession and NGOs) carried out a discussion to establish a framework for "integrated reporting" (announced on December 9, 2013). The number of companies creating integrated reports, mainly large companies, reached 250 in 2016, making Japan the most-advanced reporting country beside South Africa. The World Intellectual Capital/Assets Initiative (WICI) (a global network of organizations representing companies, financial analysts and investors, the accounting profession and academia), in which the Ministry of Economy, Trade and Industry also participates, publicized the WICI Intangibles Reporting Framework in September 2016 as guidelines for the preparation of integrated reports.

important in order to promote open innovation as Japan's IP strategy with an eye to intensifying global competition and the 4th Industrial Revolution (Society5.0). It is important to create a mindset among universities and public research institutions to carry out IP management with commercialization in mind and whenever it is feasible, connect the results of R&D projects to business, and return the benefits of outstanding research results to society.

#### <Promotion of Industry-Academia Collaboration>

Traditionally, industry-academia collaboration projects in Japan have been conducted on a small scale among individual researchers. It has long been pointed out that full-fledged joint research is needed in order to fully promote open innovation. In addition, the industry has pointed out some issues related to collaboration with universities, such as the pace of the progress of joint research and result management (intellectual property). The Revitalization Strategy 2016 presented full-fledged inter-organizational collaboration between the industry and academia as a measure for innovation creation. It also stated that Japan "aims to triple companies' investment in universities and national research and development agencies by 2025 with a view to surpassing the OECD average amount." Based on this Strategy, the Ministry of Education, Culture, Sports, Science and Technology and Ministry of Economy, Trade and Industry formulated the Guidelines for Fortifying Joint Research Undertaken through Collaboration between Industry, Academia and the Government (November 30, 2016). It is hoped that universities and national research and development agencies will use these Guidelines as reference for creating create a virtuous cycle of knowledge through the strengthening of the management system for IP utilization, which covers the formulation of strategic IP management policies, securing and management frameworks for IP-related budget, and the sophistication of IP management.

In addition, there have been some criticism regarding industry-academia collaboration that universities have poor awareness for commercialization and that their IP-related budget and human resources are not sufficient to acquire IP rights that are based on their outstanding research results. Therefore, the government should also consider measures for securing a proper amount of IP-related budget and measures for fostering and securing human resources for IP management and operation at universities, rather than counting on voluntary efforts by universities and public research institutions. At the same time, in order to raise awareness for commercialization among universities and public research institutions, the government also needs to carry out discussion on an index related to the commercialization of university research results and promote efforts to facility dialogue between universities and the industry.

While colleges of technology are expected make social contributions through research activities, in addition to playing the same institutional higher education role as universities of developing human resources, in particular it is hoped that they will contribute to local communities by offering solutions for challenges faced by their regions and local companies

through their practical applied studies rooted in the business world. It is important to make use of their research capability and nation-wide networks in promoting regional and cross-regional collaboration with SMEs for the revitalization of regional economies.

#### <Promotion of Inter-Industry Collaboration>

As for inter-industry collaboration, it is necessary to stimulate collaboration between large companies and SMEs and smaller, highly-rated companies, which support regional economies and are capable of making management decisions more flexibly, and venture companies, which are capable of taking quick and bold actions, while also spurring cross-sectoral collaborations that lead to open innovation, with the characteristics of the 4th Industrial Revolution in mind.

Collaborations between SMEs, etc. and large companies can be boiled down to two models. In the first model, SMEs, etc. apply technologies held by large companies. The "Kawasaki Model" is the major example of this type. In the second model, large companies apply technologies held by SMEs. The first model where SMEs apply large companies' technologies allows companies to acquire new markets and expand their business as SMEs utilize excellent technologies that the large companies could not use due to reasons such as that the market was too small for large companies and the technologies were not compatible with the large companies' businesses. On the other hand, in the second model where large companies apply SMEs' technologies, large companies can introduce innovative technologies held by SMEs and SMEs can utilize large companies' technologies and sales channels. It is hoped that a wide range of SMEs and large companies will promote such collaboration with said characteristics in mind in order to promote innovation creation and regional industry revitalization.

#### <Human Resources to Support Industry-Academia/Inter-Industry Collaborations>

Some have pointed out the insufficient collaboration among support personnel as an issue regarding industry-academia/inter-industry collaboration. It is necessary for relevant ministries and agencies to strengthen collaborations among IP professionals assigned according to the purpose of their policies, while also working toward the matching of seeds and needs and promoting project production by facilitating collaboration among SME supporters, regional support institutions and IP professionals. Furthermore, there is a stronger demand for implementing efforts toward the fostering and career path development of such support personnel.

## **(2) Measures for the Future**

In light of the current situation and challenges discussed above, the following initiatives are being promoted by relevant ministries and agencies as measures for the promotion of awareness campaigns and business support for SMEs, collaboration of relevant agencies, and proactive cooperation among universities, colleges of technology, public research institutions and

industry under proper IP management strategies.

## ① Utilizing Local SMEs' Intellectual Property

### <<Support for Intellectual Property Rights Acquisition, Standardization and Utilization>>

#### (Support for Local Intellectual Property Rights Acquisition and Utilization)

- In order to promote intellectual property rights acquisition and utilization by local SMEs, on the national level there are awareness campaigns concerning intellectual property-related systems and support measures based on the Action Plan for Regional Intellectual Property Revitalization. At the regional level, the Comprehensive Intellectual Property Support Counters and Yoroazu Support Centers will cooperate in strengthening the consultation system to provide meticulous support tailored to local situations and SMEs' needs. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to support intellectual property rights acquisition and utilization by local SMEs, etc., enhance visit interviews, video interviews and circuit patent offices, while also promoting the Patent Promotion Program for Regional-Bases to carry out on-site interview examinations and hold patent seminars simultaneously targeting areas with an agglomerations of enterprises. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to promote IP utilization by local SMEs, increase the number of circuit patent offices and make a greater effort to raise regional awareness of the IP systems and support available. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to promote IP rights acquisition and utilization by local smaller, highly-rated companies, SMEs and ventures, establish INPI-KANSAI in the second quarter (July to September) of FY2017 under the National Center for Industrial Property Information and Training (INPIT) to support IP utilization. In addition, the INPIT-KANSAI will enhance on-site interview examinations, etc. by developing an environment that enhances their usability for local users. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Consider simplification of patent application procedures, etc. for SMEs, etc. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)



### **(Promoting SME Support by Financial Institutions through IP Utilization)**

- In order to support companies' productivity improvement efforts, etc. and thereby contribute to the revitalization of regional economies, continue to promote financing and business support based on business viability evaluation. (Short-term, Medium-term) (Financial Services Agency)
- Disseminate and further improve the "local benchmarks" so as to encourage regional financial institutions and support organizations to engage in more financing based on viability evaluation and business support for local companies. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to promote greater visualization of intangible assets, including the intellectual property of SMEs, encourage companies to independently produce their own IP management reports by informing them of the utilization situation of integrated reporting, and carry out awareness campaigns for financial institutions and SME supporters through the IP Management Week, etc. to promote utilization of said reports. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to promote IP utilization in corporate feasibility assessments by financial institutions, incorporate the feedback of financial institutions in making the "Intellectual Property Business Valuation Report" more user friendly, and have Senior Specialists for Industrial Property Rights visit financial institutions individually, conduct IP seminars for targeted personnel of financial institutions, host an Intellectual Property Finance Symposium and enact other, more comprehensive efforts. Also, draw up a manual of collected and analyzed financing examples which utilize the Intellectual Property Business Valuation Report, and distribute this manual to financial institutions. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Financial Services Agency)

### **(Human Resource Support Aimed at IP Utilization)**

- In order to raise IP awareness of SMEs, etc., carry out awareness campaigns for persons involved, including management level personnel, such as seminars on IP management in the context of management strategies. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Perform ongoing strengthening and implementation of efforts aimed at cultivating human resources within SMEs and venture businesses to support the development of comprehensive IP management, taking into account patents, designs, trademarks, trade

secrets, etc., and all other relevant aspects from business model discussion to the exercising of rights, via legal actions, etc.; and in order to facilitate this cultivation, help with the development of environments which allow for the comprehensive provision of IP-related legal knowledge as well as IP management strategy expertise that is connected with business strategy and reflective of overseas information, etc. (Short term) (Ministry of Economy, Trade and Industry) [Reprint]

### <<Strategic Dissemination Aimed at Intellectual Property Use Developing SMEs>>

#### **(Intellectual Property Dissemination Activities)**

- In order to raise awareness for IP utilization among local SMEs unfamiliar with it, actively make use of Comprehensive Intellectual Property Support Counters to raise awareness by such means as collecting, analyzing and disseminating best practices for IP utilization in management strategies and also raise awareness about IP among relevant SME support personnel in local governments, Yorozu Support Centers, financial institutions, SME management consultants, chambers of commerce and industry, etc. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to raise IP awareness amongst local SMEs and their supporters to thereby promote appropriate IP-focused efforts, encourage the acquisition of intellectual property management skills qualifications. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

#### **(Promoting Fair IP Handling under Subcontracts)**

- Raise awareness concerning the content of the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors (Act No. 120 of 1956), while also disseminating the Guidelines for the Promotion of Fair Business Practices for Subcontractors, Etc. and the Price Negotiation Case Study. Strictly regulate violations of IP-related subcontracting laws. (Short-term, Medium-term) (Japan Fair Trade Commission; Ministry of Economy, Trade and Industry)

### << Strengthening of Domestic Support for Intellectual Property Use Challenger Type SMEs>>

#### **(Promotion of Pioneering and Ambitious Local IP Activities)**

- In order to expand on a national scale those efforts which are aimed at improving local IP support capabilities, provide stronger support for pioneering IP support activities

being undertaken by ambitious parties connected with local SME support. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Strengthening Support for Local SME Intellectual Property Activities)**

- In order to strengthen support for smaller, highly-rated firms and venture businesses, make use of the Comprehensive Intellectual Property Support Counters, which are operated by the National Center for Industrial Property Information and Training (INPIT) and which serve as a point of contact for local SMEs and others, to help with the cultivation of greater business development strength via IP competitiveness analyses, as exemplified by comprehensive patent information analyses and SWOT analyses.<sup>14</sup> (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Strengthening of Support for Design and Brand-driven Commercialization)**

- In order to foster the creation of added-value products and services by local SMEs, as well as the development of new markets, provide more robust support for design and brand-driven high added value product development, own brand creation, development of new fields, local brand creation and other such efforts aimed at commercialization. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Promotion of Standardization for Smaller, Highly-rated Firms)**

- Publicize domestic and overseas examples of standardization and their significance, as well as relevant support organizations, in order to push the standardization of stand-out technologies and products by smaller, highly-rated firms. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]
- For strategic use of the standardization system by smaller, high-rated firms, promote standardization support partner organization's collaboration with Comprehensive Intellectual Property Support Counters, Yorozu Support Centers and SME support entities. In addition, in order to support efforts for smaller, highly-rated firms to implement their stand-out technologies and products in the society while also earning profits, discuss a structure for providing these firms with one-stop service for drafting and proposing standardization and IP strategies according to their business strategies,

---

<sup>14</sup> SWOT analysis is a business strategy creation method that utilizes factor analysis in the four categories of “Strength,” “Weakness,” “Opportunities” and “Threats” to determine the optimal utilization of business resources in the face of changes in the business environment.

through collaboration among stakeholder organizations and the Japanese Standards Association (JSA). (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]

- Support standardization of excellent technologies and products of local smaller, highly-rated firms, through means such as the "Partnership System for Support of Standardization Utilization" to promote standardization of smaller, highly-rated firms' technology and products, utilizing regional revitalization promotion subsidies, and by working together with a wide array of relevant parties, including local governments, industrial support organizations, regional financial institutions and certifying bodies. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]

#### **(Augmentation of 'One-stop' Support for Trade Secret Management)**

- Use IP strategy, including trade secret management, consultation centers and portal websites to raise awareness of, and popularize the utilization of, information resources available on the homepage, as well as nationwide seminars, e-learning content and other resources geared primarily towards SMEs. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]

#### **(Intellectual Property Dispute-related Support)**

- In order to address the issue of increasing costs for SMEs in dealing with IP disputes, study private sector programs on litigation cost insurance covering IPs available for SMEs, and strive for expanding overseas IP litigation cost insurance and assist its independence. (Short term) (Ministry of Economy, Trade and Industry) [Reprint]
- In order to assist access to IP experts in local regions, improve structures to facilitate the ability of local residents to retain experts versed in IP dispute resolution, by such means as creating a system for introducing a consultation site and a database of patent attorneys, in collaboration with related organizations and as a part of information provision services. (Short-term, Medium-term) (Ministry of Justice; Ministry of Economy, Trade and Industry) [Reprint]

#### **(Cultivation of Patent Attorneys Capable of Supporting Strategic Intellectual Property Utilization)**

- In order to create an environment to cultivate patent attorneys' capabilities as "intellectual property-related specialists to provide support for IP strategy development from the

viewpoint of IP and business management, including open and closed strategy standardization and trade secret concealment, further enhance the content of the consulting training programs provided to patent attorneys, which includes the above mentioned matters, by upgrading curricula based on the industry's opinions obtained through dialogues, while also strengthening initiatives aimed at revising the patent application profit structure. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

## **<<Strengthening of Overseas Expansion Support for Intellectual Property Use Challenger Type SMEs>>**

### **(Strengthening of IP-Related Support for Overseas Expansion)**

- In order to provide IP-related support for SMEs aiming to expand overseas, strengthen comprehensive support from acquisition to exercise/utilization of IP rights for SMEs. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

### **(Overseas Dispatch of Specialists)**

- In order to develop an IP support system overseas for Japanese SMEs, especially to provide information which will help SMEs strategically utilize IP to foster their overseas expansion, dispatch patent attorneys overseas, take advantage of the "New Exports Promotion Consortium of Major Nations" and in general work together with local Japanese consulates and JETRO to strengthen the support systems and initiatives in place overseas. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Foreign Affairs)

### **(Supporting the Acquisition of Overseas Certification)**

- Promote efforts to support smaller, highly-rated firms doing business overseas in obtaining regulatory certifications, including creation of centers for consultation on essential testing data to satisfy local regulations and procedures for obtaining certifications, providing information seminar and preparation of brochures.(Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]

## **<<Making Use of IP for Regional Revitalization >>**

### **(Promotion of Regional IP Strategies)**

- Investigate the progress of IP strategy development and revision in each prefecture and ordinance-designated city and provide support as necessary. (Short-term, Medium-term)

(Cabinet Office)

- In order to stimulate a higher level of intellectual property activity at the prefectural level, make use of the local IP strategy headquarters established in nine regions across the country to coordinate with local governments, while also strengthening local governments' IP-related initiatives through mutual information sharing. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Cabinet Office)

## ② Promotion of Industry-Academia/Inter-Industry Collaboration

### << Enhancing the Functionality of Industry-Academia/Inter-Industry Collaboration >>

#### **(Promotion of Joint Research under Industry-Academia-Government Collaboration)**

- In order to promote large-scale inter-organizational joint research under industry-academia-government collaboration and thereby promote innovation creation involving local universities and SMEs across Japan, strengthen industry-academia-government activities by carrying out validity checks for the Guidelines for Fortifying Joint Research Undertaken through Collaboration between Industry, Academia and the Government (November 30, 2016) in industry, academia and government. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology)
- In order to accelerate open innovation in Japan, create a framework for industry-academia collaboration utilizing public and private funds, within which the intellectual property held by universities can be mobilized, technology and systems reform scenarios can be drawn up jointly by industry and academia, initiatives and structures for achieving these scenarios can be planned, and joint industry-academia research, human resources development and IP management can be carried out. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to create a distinctly Japanese innovation ecosystem which contributes to regional revitalization, promote commercialization projects with project production teams established at local universities which will seek out local, homegrown technology seeds, introduce excellent technology seeds from the outside, offer business project proposals to core local companies, and engage in joint research with core local companies. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### **(Stronger Support for Venture Business Creation)**

- Provide entrepreneur education; encourage the creation of hypothetical applications for technology seeds from the basic research phase; push for verification of these hypothetical applications, continuing through hearings with customers, to cultivate awareness of practical applications; and promote transitioning to the startup phase and the Program for Creating Start-ups from Advanced Research and Technology (START) innovation creation support project. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### **(Develop Capacity for Bridge-building and Commercialization Support)**

- In order to facilitate the creation of new businesses derived from local IP seeds, develop networks of financial institutions, specialists and others to be utilized in the implementation of business project promotion activities involving the dispatch of business project producers to local areas to identify local IP needs and seeds. (Short term) (Ministry of Economy, Trade and Industry)
- In order to promote industry-academia collaborative activities conducted at universities with an eye to commercialization, dispatch "industry-academia collaboration IP advisers" to universities to provide IP management support, including IP rights acquisition and IP strategy development aimed at commercialization. In addition, in order to commercialize research outcomes from publicly funded R&D projects, dispatch IP producers to universities and public research institutions, etc. to provide IP management support, including IP strategy development and right acquisition regarding intellectual property created under such R&D projects. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Utilize matching planners to connect the vast numbers of university-led seeds nationwide, which have been aggregated via the Japan Science and Technology Agency's (JST) network, with the needs of local companies, and provide support from the joint research phase through to commercialization. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to support core local company candidates in undertaking new field and new business project challenges and support the growth of these companies, support the development of a nation-wide network of external resources via support personnel (universities, partner companies and financial institutions). Also, in order to foster further growth among core local companies, utilize support personnel to provide hands-on

support for commercialization strategy creation/sales channel development. In addition, provide support for commercialization strategy creation, sales channel development, etc. with an eye to the global market by utilizing the Global Network Council, which consists of global coordinators specialized in commercialization for the international market. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Bridge-building and Commercialization Support Personnel Collaboration)**

- Promote knowledge-sharing and mutual collaboration among business project producers, matching planners, industry-academia collaboration IP advisers, IP producers, etc. (Short-term, Medium-term) (Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; relevant ministries and agencies)

**(Promotion of Commercialization of Research Results at Universities, Etc.)**

- In order to promote the commercialization of research results at universities, public research institutions, etc., promote initiatives to facilitate industry-academia exchange, such as holding matching events for the industries and universities, etc. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Economy, Trade and Industry)

**(Promotion of Industry-Academia/Inter-Industry Collaboration)**

- In order to support SMEs collaborating with large companies, provide consultation services at the Comprehensive Intellectual Property Support Counters concerning things SMEs should note when collaborating with large companies as well as any concerns that occur while promoting such collaboration. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to support large companies proactively engaging in IP business matching with SMEs, utilize and disseminate commendation systems, including the Intellectual Property Service Award, and opportunities and means for sharing best practices for IP collaboration across Japan. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In order to solve issues at SMEs and other business entities and thereby contribute to regional revitalization, make use of technologies and networks of universities and colleges of technology in promoting collaboration among these academic institutions and



SMEs. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### << **Strengthening University IP Strategies**>>

#### **(Strengthening IP Management at Universities, etc.)**

- For the proper domestic and international rights acquisition and maintenance of outstanding R&D project results, consider measures for securing proper IP budgets at universities, including partial use of direct expenses for patent right acquisition, which is a form of research results, under the system aimed at commercialization. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; relevant ministries and agencies)
- In order to promote more advanced/autonomous intellectual property management by universities, provide focused support for applications from universities which have drawn up intellectual property strategies and intellectual property utilization policies and are actively undertaking technology transfer activities. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to solve IP-related issues at universities and thereby promote the commercialization of university research results, promote the use of the University IP-Related Hotline, which provides IP-related consultation services for universities, etc. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

#### **(Fostering and Securing Human Resources for Research Management)**

- In order to foster and secure human resources for research management who undertake research fund procurement and management and IP management and utilization at universities, etc., take necessary measures based on an investigation on the current status of evaluation, career path, etc. for research management personnel. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

#### **(Strengthening Systems for Fostering Human Resources for Technology Transfer)**

- With a view to foster human resources who comprehensively undertake technology transfer from the R&D phase to the commercialization phase utilizing marketing, develop a system under which advanced TLO, etc. accept core human resources from universities, etc. across Japan and foster technology transfer human resources through OJT. Through

this system, disseminate comprehensive technology transfer models to universities, etc. across Japan, while also developing a close technology transfer network among universities and advanced TLO, etc. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

**(Popularization of the "Confidential Information Protection Handbook for Universities")**

- Disseminate and circulate a "Confidential Information Protection Handbook for Universities" to be used by universities when concluding employment contracts with students, etc., in order to clarify the appropriate handling of confidential information that university employees may be privy to during joint research with companies and others. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]

**(Promotion of Activity Improvement via Functional Assessments of Industry-Academia Collaboration)**

- Perform fundamentally centralized and ongoing collection and analysis of evaluation index data from universities and TLOs for industry-academia collaborative activities, and provide feedback to the universities and TLOs concerning the results, while also considering development of an index to facilitate the commercialization of research results. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology)

**(Strengthening Universities' Capability for Proper Industry-Academia Collaboration Strategy Development)**

- In order to help universities ascertain their individual strengths and weaknesses with regard to industry-academia collaboration capability and then create and implement appropriate strategies making use of their capability for internal assessment, improve universities' industry-academia collaboration capability by collecting data necessary for strategy development and visualizing the industry-academia collaborative activity performance of universities based on objective, qualitative data, while also promoting the introduction of proper management indices at universities. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

**(Realization of Flexible Handling of Joint Research Results from the Viewpoint of Promoting Their Utilization)**

- Disseminate among relevant parties the results of discussion on the handling of results from individual-type and consortium-type joint research projects by universities, etc. and companies and promote joint research contracts from the viewpoint of joint research result utilization, including flexible handling of research results, with an eye to realizing full-fledged industry-academia-government collaboration , while also strengthening mutual partnership between industry and academia through management-level dialogues. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

**(Development of Proof of Concept Support Measures)**

- In order to stimulate interest of private companies and investors toward university research results and facilitate their commercialization, provide stronger support for proof of concept (POC) implementation to verify the feasibility of new research ideas, while also considering the enhancement of gap funds. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

**<< Strengthening of IP Strategies for National Research and Development Projects >>**

**(Strengthening of IP Strategies for National Research and Development Projects)**

- In order to fully capitalize on the commercialization of national research and development results for the sake of enhancing national wealth, utilize as a reference the "Guidelines for Intellectual Property Management in Government-commissioned Research and Development," established by the Ministry of Economy, Trade and Industry in May 2015 as a guide for implementing a Japanese version of the Bayh-Doyle Act, and collect information on the IP management status of national research and development projects and take necessary measures. (Short term) (Cabinet Office; relevant ministries and agencies)

### **3. Augmentation of IP Education and IP Human Resource Development toward the "Nation of IP Human Capital"**

#### **(1) Current Situation and Challenges**

For a country with scarce natural resources, intellectual property is the very source of competitiveness. Since the establishment of the Intellectual Property Strategy Headquarters in 2003, Japan has promoted IP strategies to strengthen national competitiveness with a vision to become a "country of intellectual property" so as to realize vigorous economy and society through strategic IP creation, protection and utilization. In all areas where IP strategies are promoted, human resources are the key to their implementation. In order to cultivate IP personnel, public-private efforts are being undertaken, based on the "Comprehensive Strategy for the Development of Human Resources for Intellectual Property" (January 2006) and "Plan for the Development of Human Capital for Intellectual Property" (January 2012).

The foundation for these cultivation efforts is education. Already, within the "Comprehensive Strategy for the Development of Human Resources for Intellectual Property," there is an awareness that strengthening IP education will lead to a quantitative and qualitative improvement in IP personnel for the future, and efforts are therefore being made to implement IP education at all levels, from primary to upper secondary education. Today, intellectual property represents the key to Japanese competitive strength, and everyone in Japan is now being asked to create new value of some sort by joining the intellectual creation cycle from IP creation to IP protection and utilization.

Amidst this background, the document titled "Regarding Necessary Measures and Improvement of Courses of Study for Kindergartens, Elementary Schools, Junior High Schools, High Schools and Schools for Special Needs Education (Report)" (December 21, 2016; Central Council for Education) describes the characteristics and abilities students are hoped to demonstrate through school education in this unpredictable era of accelerated change due to globalization and informatization. The document states "abilities to fully utilize their senses to imagine a better life and society even in the rapidly changing society, discover and solve problems through trials and errors and create new values, while also taking such moments as opportunities for discovering and solving new problems." It also states that educators must "clarify the relationship between the subjects, etc. and the quality and ability required for addressing modern issues, visualize what part of each subject is related to the development of such quality and ability, and cultivate such quality and ability from a wider perspective on the whole education curriculum."

Regarding this point, the new courses of study for elementary schools and junior high

schools amended in March 2017<sup>15</sup> organize the goals and content of each subject into the following two structures: [1] cultivation of creativity that serves as the source of new discovery and scientific intellect; [2] promotion of an understanding of the significance of intellectual property (importance of its protection and utilization). As the 2nd structure refers to the "quality and ability that need to be cultivated" in relation to IP, these courses of study aim to foster such quality and ability in each subject, etc. according to students' development level. Specifically, these courses of study clarify approaches to the creative study process for individual subjects according to their characteristics. For example, science focuses on scientific research activities in which students are required to find questions in phenomena, carry out observations and experiments based on their estimations, and summarize and review the results. In addition, to deepen the understanding of the significance of IP protection and utilization, home economics and technology education at junior high schools include the cultivation of the attitude to create, protect and utilize intellectual property.

On the other hand, the Intellectual Property Strategic Program 2016 summarizes the directions for the promotion of IP education in Japan as follows.

- (i) Implementation of systematic education focused on cultivating each person in Japan as human capital for developing and using intellectual property
- (ii) Fostering the development of creativity which emphasizes the use of communal connections and knowledge
- (iii) Achieving collaboration with local communities and society (construction of a support system via industry-academia-government collaboration)

In order to disseminate "IP creation education"<sup>16</sup> at schools and colleges of technology across the country as one of the measures to concretize these directions, the Intellectual Property Creation Education Consortium was established in January 2017, with a view to realize effective collaboration and cooperation between schools and local communities. It started discussion on information sharing regarding industry-academia-government initiatives and support for Regional Consortiums,<sup>17</sup> which the government aims to establish in every

---

<sup>15</sup> The new courses of study are planned to be fully implemented from FY2020 at elementary schools and from FY2021 at junior high schools. The course of study for high schools is planned to be revised by the end of FY2017 and to be implemented from FY2022 subsequently for each grade.

<sup>16</sup> Refers to developmental stage-appropriate IP education that cultivates creativity as the source of new discoveries and scientific thinking, as well as fostering a positive attitude toward IP protection and utilization and a greater understanding of the importance of these activities, and, thereby cultivating human resources to create a virtual cycle of intellectual creation from IP creation to IP protection and utilization

<sup>17</sup> Based on the section titled "Formation of a Regional Consortium (provisional title)" in the Intellectual Property Strategic Program 2016, Regional Consortiums aim to help foster creativity in the classroom, as well as to help students learn about the protection, utilization and significance of IP, and secure the participation of relevant industry, academia and government organizations in facilitating the construction of Regional Consortiums to work together with local communities to develop IP education.

region in the future.

The Intellectual Property Creation Education Consortium aims to establish at least one Regional Consortium in each prefecture by FY2020 following discussion on the three issues listed below between educational institutions and external resources, such as companies.

### ① Organization of IP Creation Education

Consider and organize approaches to developmental stage-specific IP creation education and the position of IP creation education in educational curricula

### ② Collection and Preparation of Educational Programs (Topics)

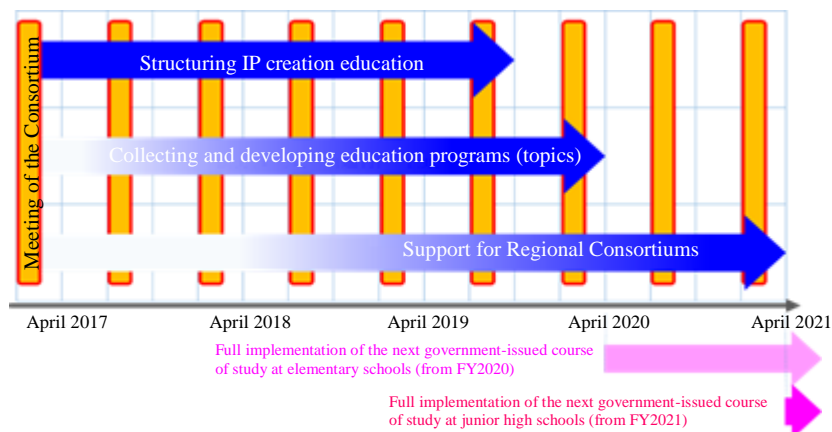
Consider methods for collecting and preparing educational programs, while also collaborating with various organizations in collecting and preparing educational programs

### ③ Support for Regional Consortiums

Consider matters that need to be addressed to promote the activities of Regional Consortiums

The Intellectual Property Creation Education Consortium is also required to promote concrete measures, including promotion of coordination among subjects and support for educational activities by faculty members, in order to implement IP creation education along the direction of the new courses of study as mentioned above.

[Schematic diagram for the expansion of IP creation education]



At the level of higher education, progressive initiatives are underway at technical colleges and Yamaguchi University, which has been designated as a Joint Usage/Education Center. However, amongst universities, only Yamaguchi University has made IP-related courses compulsory for all students. In light of this situation, universities are being encouraged to take the initiative in establishing and enhancing IP-related courses, including those on standardization, across a broad spectrum of faculties and departments. It is also necessary to increase opportunities for faculty members to have IP-related education in order to disseminate IP creation education at schools as mentioned above.

In addition, graduate schools seem to be in a transition period, with some IP graduate schools announcing the suspension of student recruitment, while others created new curricula with a view to fostering "business managers with IP awareness." It is necessary to review the past history of IP graduate schools and continue to consider approaches to IP education at such schools, in addition to law schools and business management graduate schools, in the context of recurrent education for workers to cope with rapid technological innovations and industrial structural changes in recent years.

In order to raise the level of future IP human resources through systematic IP education according to developmental stages as mentioned above, and expand the IP base by deepening the understanding of IP for every person in Japan, including the management of companies, it is necessary to constantly revise and further enhance the ongoing efforts by means such as carrying out discussion on the effective utilization of teaching materials developed so far.

## **(2) Measures for the Future**

In light of the current situation and challenges discussed above, the following initiatives are being promoted by relevant ministries and agencies to develop a study support system and teaching materials and other fundamental matters for promoting IP education at each educational phase and to foster IP human resources.

### **① Promotion of Education about Intellectual Property in Schools and Universities**

#### **(Promotion of Education about Intellectual Property in Schools)**

- Implement cross-sectional curriculum management in line with the direction of the new government-issued course of study announced in March 2017 to help schools clarify core subjects for cultivating qualities and competencies related to IP, and thereby foster creativity, encourage protection and utilization of intellectual property and promote an understanding of its significance. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Focus on high schools offering advanced math and science courses as targets for initiatives which will utilize the insights of universities, companies and other relevant organizations to help students develop creativity capable of using rules and principles and other knowledge to produce tangible, real-world results and apply this creative capacity to the active utilization and commercialization of intellectual property for the future. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### **(Promotion of Education about Intellectual Property in Universities)**

- Encourage universities and technical colleges to take the initiative in establishing courses related to IP and standardization, using Joint Usage/Education Center-designated Yamaguchi University's adoption of IP-related compulsory courses, or the progressive initiatives of technical colleges, as examples. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Economy, Trade and Industry)
- Promote the independent efforts of teacher training faculties at universities to equip teachers with the ability to foster creativity and to provide an appreciation for the significance of IP among elementary, junior and senior high students. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- With the aim of increasing the number of human resources capable of handling standardization, work to expand the amount of standardization-related education in universities for both the humanities and the sciences. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- In light of the fact that IP strategy is part of business management, bolster IP education within law schools and business management-related graduate programs. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

## **② Construction of an Educational Support System in Partnership with Local Governments and Communities**

### **(Considering Specific Supportive Measures for the Intellectual Property Education Promotion Consortium)**

- Make use of the Intellectual Property Education Promotion Consortium comprised of relevant ministries and agencies, classrooms, companies and other stakeholders to examine approaches to specific support measures for individual Regional Consortiums. (Short-term, Medium-term) (Cabinet Office; Ministry of Education, Culture, Sports, Science and Technology; relevant ministries and agencies)
- Capitalize on the Intellectual Property Education Promotion Consortium to broadly consolidate, and circulate, IP creation education-related programs to be offered to classrooms which include IP-related topics applicable to each course subject. (Short-term, Medium-term) (Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of



Education, Culture, Sports, Science and Technology)

**(Promotion of Establishment of Regional Consortiums)**

- In order to help foster creativity in the classroom, as well as to help students learn about the protection, utilization and significance of IP, secure the participation of relevant industry, academia and government organizations in facilitating the construction of Regional Consortiums to work together with local communities to develop IP creation education. (Short-term, Medium-term) (Cabinet Office; Ministry of Education, Culture, Sports, Science and Technology; relevant ministries and agencies)

**③ Infrastructure Development for Intellectual Property Education and Awareness Raising**

**(Teaching Materials Improvement)**

- Encourage and disseminate private initiatives for creating and disseminating teaching materials contributing to IP education focusing on IP rights and the Unfair Competition Prevention Act, Copyright Act and standardization-related current topics. (Short-term, Medium-term) (Cabinet Office; relevant ministries and agencies)
- Consider the enhancement of the "teaching material table" concerning IP rights formulated based on the investigation on the approaches to teaching materials contributing to IP education, while also promoting the utilization of teaching materials developed based on said investigation. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- From the viewpoint of improving IP-related teaching materials, discuss what teaching materials should look like, with the latest Copyright Act-related topics in mind, and develop and disseminate such teaching materials. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to support educators connected with IP education, promote the use of training seminars and other events aimed at educators in each region who are using the teaching materials that have been developed under the above-mentioned efforts. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### **(Internationalization of the Intellectual Property Education Program)**

- In order to equip human resources with the ability to function on an international stage, encourage the addition of IP-related courses in English as well as overseas mutual student exchange. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to expand Japan's IP system globally and to secure the world's best IP human resources, disseminate and utilize teaching materials developed for the establishment of a system for implementing an English IP education program. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

### **(Raising Public Awareness and Qualification System Utilization)**

- In order to improve IP-related knowledge amongst the general populace, promote awareness-raising activities and encourage the acquisition of IP-related qualifications, by means such as the Intellectual Property Management Skills Test. (Short-term, Medium-term) (relevant ministries and agencies)
- For nurturing IP management human resources capable of doing activities in the international sphere, strive for dissemination and use of study materials developed for corporate executives, executive candidates and managers of business planning sections and business units in the private sector. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]

### **III. Making Japan Shine in 2020 and Beyond by Strengthening Content Quality/Power**

#### **1. Promotion of Overseas Expansion of Content and Strengthening of Industrial Infrastructure**

##### **(1) Current Situation and Challenges**

It is undebatable that creative content, such as comics, animation, films, music, video games and broadcast programs, will lead the Cool Japan Strategy to communicate the attractive features of Japan to overseas. The permeability of the cultural values of creative content has great ripple effects, such as growth in export of goods and services in other industries, promotion of inbound tourism, dissemination of regional attractive features, and acquisition of "Japan fans." When we think about Japan's growth until year 2020 and time after that, the maximization of the power of creative content will be an important issue.

The Intellectual Property Strategic Program 2016 pointed out that continuous expansion of creative content to overseas will be of importance in addressing this issue. Public-private initiatives toward the overseas expansion of creative content have shown stable progress thanks to the efforts of people who have worked for this goal over years.

Under governmental initiatives, measures to promote overseas expansion of creative content have shown certain results. The J-LOP project provides companies with support for movie content localization (such as subtitling and dubbing) for overseas markets and promotional activities, including participation in international trade fairs. Since FY2012, it has helped approximately 500 companies start to work on overseas expansion. The total overseas sales of corporations, etc. that participated in the project have increased by nearly 200 billion yen.<sup>18</sup> Stable results are also seen in the public-private initiatives under the broadcast content overseas expansion project, which supports the acquisition of broadcast slots at stations in emerging Asian countries and other overseas countries and the joint production of Japanese broadcast programs based on the local needs. The economic ripple effect of the projects conducted with the FY2014 supplementary budget for the Ministry of Internal Affairs and Communications is estimated to be as large as 8.57 billion yen, which is approximately 10.2 times the investment (approximately 0.84 billion yen), in six ASEAN countries.<sup>19</sup> Such public-private initiatives pushed up broadcast content-related overseas

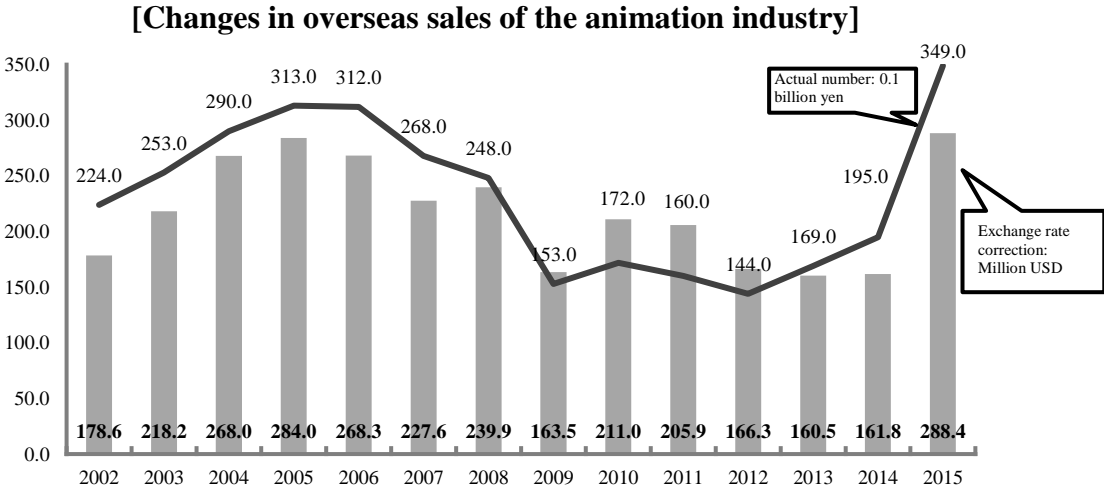
---

<sup>18</sup> See "Material for the Fourth Meeting of the Committee on Content Fields, Verification, Evaluation, and Planning Committee" by the Ministry of Economy, Trade and Industry. The growth in overseas sales is the total increase in overseas sales of the companies that participated in the project.

<sup>19</sup> See "Material for the Fourth Meeting of the Committee on Content Fields, Verification, Evaluation, and Planning Committee" by the Ministry of Internal Affairs and Communications. Estimation of the economic ripple effect of 13 major projects conducted with the FY2014 supplementary budget in Philippines, Malaysia, Thailand, Indonesia, Vietnam and Myanmar. "Economic ripple effect" means the total of "direct

sales to 28.85 billion yen (158.0% compared to the previous fiscal year (up 10.6 billion yen)) in FY2015 and the goal set in the government's growth strategy<sup>20</sup> was achieved three years earlier than planned.

In addition, the animation industry draws attention, among other content industries, as an area rapidly expanding overseas. In particular, the industry has shown an extraordinary growth since 2015, which is expected to increase inbound tourism demand for areas used as the settings of animation works.



However, when we look at the world's entire content industry, Japan's share still falls short of expectations it bears as an engine for the Cool Japan Strategy. There is still a lot of space to grow. The size of the global content market excluding Japan was approximately 555.2 billion USD in 2014 and is expected to grow to approximately 699.3 billion USD by 2020.<sup>21</sup> The sales of the Japanese content industry stood at approximately 14.1 billion USD, merely accounting for 2.5% of the overseas market.

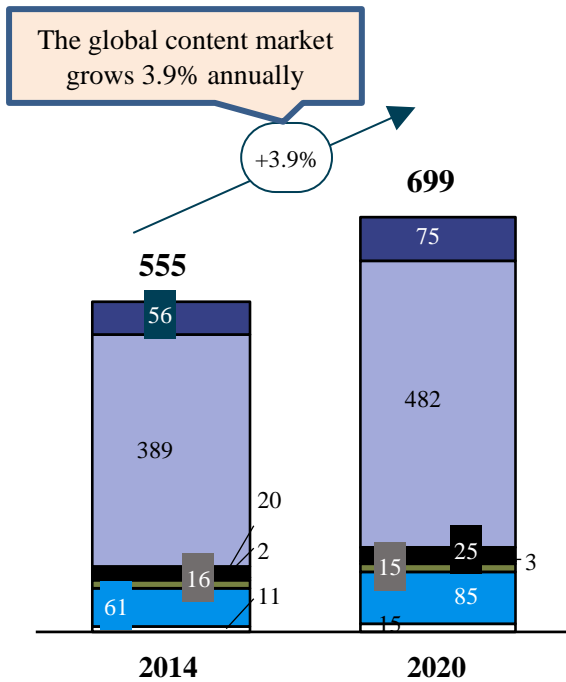
---

effect,” which is estimated based on viewer surveys on broadcast programs that were produced under the project and other related statistical data, and “indirect effect,” which is estimated as an effect triggered by the increase in employer income and the value of production triggered according to the nature of each item in the breakdown of the direct effect deemed as the final demand.

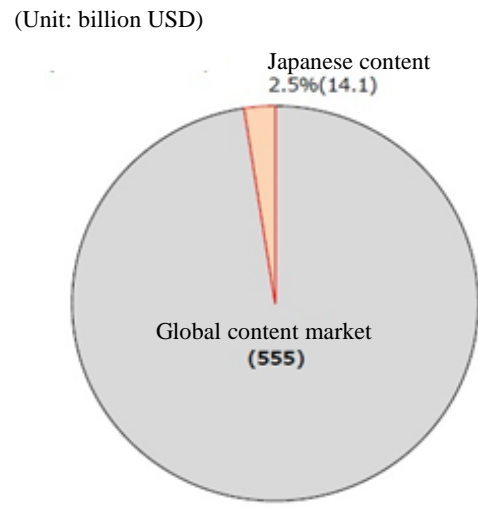
<sup>20</sup> The Japan Revitalization Strategy set a KPI of increasing broadcast content-related sales in overseas markets to three times the current value (FY2010) by FY2018.

<sup>21</sup> Investigation by Roland Berger in 2015, cited from “Content Industry: Current Status and Direction of Future Development” by the Ministry of Economy, Trade and Industry (December 2016) ([http://www.meti.go.jp/policy/mono\\_info\\_service/contents/](http://www.meti.go.jp/policy/mono_info_service/contents/))

**[Global content market (excluding Japan)]**  
(Results in 2014 and estimations for 2020; in billion USD)



**[Share of the sales of Japanese content in the global content market]**



- The share of the sales of Japanese content varies from field to field. From the largest to the smallest, the comics industry accounts for 26.9%, video games 15.2%, character 8.5%, and animation 4.1%.

To further enhance the presence of Japanese creative content in the overseas markets and push up its overseas expansion to the next level, it is necessary to deliver more diverse content to overseas countries via different routes, due to the following reasons.

The overseas markets have different cultural backgrounds from Japan and people's tastes are also different. The majority of creative content produced in Japan is optimized for domestic fans. Content creators have developed their skills of expression as they tried to get chosen by picky Japanese consumers by meeting their sensibilities and cultural context. For this reason, hits in Japan are not necessarily guaranteed to make a success in the overseas market, too.

While it is greatly encouraged to make efforts to take the overseas markets into account during the production process, it is also pointed out that the difference in consumers' tastes in overseas and Japan is subtle and thus it is not easy to fully understand it a priori. Therefore, the production of content targeted at the overseas markets will also require many trials and errors.

On the other hand, there arises a new possibility that works that are less known in Japan can take an unimaginable course to become a great global hit through online media.

Due to such situation, it is necessary to make use of Japanese creative content's diversity

and novelty in further deepening overseas expansion.

In addition to such efforts, it is also important to continue to promote the overseas expansion of domestically major content.

Furthermore, it is required to promote efforts for business matching between the content industry and other industries, utilizing the Cool Japan Public-Private Platform, which was established under the Cabinet Office in December 2015. At the same time, it is also necessary to develop an ecosystem to maximize the ripple effects of attractive content on other industries and communication of regional attractions, by establishing and networking Cool Japan hubs in Japan and overseas, etc., with reference the results of the discussion at the meeting of the Cool Japan Hub Development Review Committee (established under the Cabinet Office in May last year), while also promoting efforts to support the horizontal expansion of said ecosystem.

In order to promote such efforts, it is important to fully utilize the creativity of small- and medium-sized companies and independent creators.

In addition, efforts for acquiring global fans should be also promoted, such as proactive interaction between domestic and overseas creators, joint production, and utilization of the capacity of local production companies.

At the same time, in order to maximize the power of creative content that has gained a certain level of popularity in the overseas market, it is also important to continue with the efforts to strengthen the overseas expansion ability not only from the creative aspect, but also from the business aspect, such as cooperation with other industries, establishment of promotion methods and accumulation of knowhow on contracts and negotiation.

Such efforts are not something that yields results in a day; success can be only attained after many trials and errors. For this reason, public and private efforts for enhancing overseas expansion should be continued with patience and willingness to accept risks from a long-term perspective.

At the same time, the results achieved so far and issues made clear need to be fully examined. Based on that, if necessary, the government should revise its supportive measures and the industry should promote inter-organizational collaboration and integration and revise business practices in the industry, so as to develop and continue efforts to be promoted by Japan as a whole.

Since the goal for the overseas expansion of broadcast content set by the government's growth strategy has been already achieved, as stated above, the Ministry of Internal Affairs

and Communications set a new goal in April this year, raising the target value of broadcast content-related overseas sales for FY2020 to 50 billion yen. The public and private sectors are expected to further enhance their efforts to attain this new target.

It is extremely important to discover great talents and foster and support their entry into successful careers, from the viewpoint of enhancing overseas expansion as well as strengthening content industry infrastructure. However, no magical means of producing such geniuses exists. All that we can do is to constantly provide opportunities for creators to exercise their talent. For this reason, efforts in the public and private sectors for discovering and fostering creators must be continuously made without a pause. In other words, it is necessary to persistently strive to develop a future content industry and strengthen Japan's cultural and artistic influence from a long-term perspective rather than continuing to pursue short-term success.

Young people would be encouraged to pursue careers as creators if they could be assured of being able to continue their creative activities for as long as they demonstrate ability. Both public and private sectors must make efforts to improve the situation by building an environment in which talented people can continuously pursue successful careers and creators can receive returns commensurate with their contributions.

In addition, the content industry is not run only by a handful of geniuses. The industry is built on a wide range of people with different roles, from staff and creators that serve as the engine for production with their various skills, to directors that facilitate creative activities and to producers who form created content into business.

In order to raise the level of the capability of individual personnel with such diverse roles, collaboration with educational institutions is also considered to be effective, in addition to the capacity building efforts in the content industry. Initiatives under industry-academia collaboration should be sought, with which, for example, the industry's needs for workers and content of necessary education (from direct skills to basic education) are communicated to educational institutions, with reference to the results of the discussion at the meeting of the Cool Japan Human Resource Development Review Committee, which was established under the Cabinet Office in March this year, and in return the industry proactively accepts internships and cooperates in joint research projects.

On the other hand, small- and medium-sized content production companies and independent creators often have difficulty in investing many resources in tasks other than creative activities, such as contracts, negotiation and financing, due to the limitations on their organizational strength. However, it is indispensable for the future development of the industry and promotion of overseas expansion that the creativity of such production companies and creators is appropriately translated into the actual commercial results they deserve. The government and industry organizations are required to provide business support for such companies and individuals.

Furthermore, the utilization of new technologies and media is also needed for the development of Japan's content industry. Historically, the creative content industry and the media have influenced each other's development. The development of media will open up new possibilities of expression of content. In addition, the presence of attractive "killer" content is indispensable for the dissemination of new media technologies.

In recent years, technologies that can cause drastic changes to the expression of content, such as augmented reality (AR), virtual reality (VR),<sup>22</sup> drones for filming, artificial intelligence (AI) and computer graphics (CG), are rapidly developing amid global development and investment competition.<sup>23</sup> In such situation, Japanese content is expected to constantly produce new forms of expression along with the innovation of technologies in Japan and attract audiences around the world. In order to realize this goal, various inventive measures need to be taken in both public and private sectors. For example, this can include provision of development centers where content creators and engineers can work together, incubation of ventures to develop innovative expression methods, commending cutting-edge initiatives and provision of opportunities to present creative works at various events, etc.

Currently, the Cultural Program is promoted across Japan with a view to discovering cultural and art resources in the country and utilizing them for regional revitalization, looking toward the Tokyo 2020 Olympic and Paralympic Games. In addition, initiatives to

---

<sup>22</sup> AR (augmented reality) is a technology to display images, etc. over the real space to provide an experience that combines information and the environment in front of the users. VR (virtual reality) is an expression in the virtual space. It shuts down sensory input from the outside world and provides an immersive experience.

<sup>23</sup> The technological development race is heating up across the globe. In approximately one year until the third quarter of 2016, approximately 2.3 billion USD was invested in AR/VR development (research by Digi-Capital in April 2015; <http://www.digi-capital.com/news/2017/01/after-mixed-year-mobile-ar-to-drive-108-billion-vr-market-by-2021/#.WWhbejNpOT8>). Nearly 0.8 billion USD of the investment is reported to have been invested in AR venture Magic Leap (founded in 2014 with over 0.5 billion USD investment from Google, etc.).



enhance cultural power across the country are promoted under the "beyond2020" program with an eye to post-Olympic years. The inspirational and communicative power of content is expected to be a strong drive for such national initiatives. We are seeing right before us the chance to drastically expand the global presence of Japanese content of all genres. It is necessary to take advantage of this opportunity to let creative content lead and communicate Japanese brands.

Efforts aimed at overseas markets are built on prior investment undertaken with great uncertainty and additional costs. If the returns to be gained were worsened due to infringement, it would greatly affect companies' motivation. Therefore, anti-counterfeit/piracy measures are important, along with efforts for promoting the distribution of genuine goods, etc.

According to a study by the Organization for Economic Cooperation and Development (OECD),<sup>24</sup> the total value of counterfeit/pirated goods around the world is approximately 460 billion dollars (approximately 50 trillion yen) in 2013, accounting for approximately 2.5% of the global trade value. A study by the International Chamber of Commerce (ICC) also forecasts that the volume will further grow in the future.

**[Estimated value of counterfeit/pirated goods around the world in the future<sup>25</sup>]**

| Item  | 2013                        | Estimated value (2022)        |
|---|-----------------------------|-------------------------------|
| Total value of international trade of counterfeit/pirated goods                 | 461 billion dollars         | 991 billion dollars           |
| Total value of domestic production and consumption of counterfeit/pirated goods | 249 – 456 billion dollars   | 524 – 959 billion dollars     |
| Infringement of digital rights for movies, music and software                   | 213 billion dollars         | 384 – 856 billion dollars     |
| (Breakdown) Movies  | 160 billion dollars         | 289 – 644 billion dollars     |
| (Breakdown) Music   | 29 billion dollars          | 53 – 117 billion dollars      |
| (Breakdown) Software  | 24 billion dollars          | 42 – 95 billion dollars       |
| Total value of counterfeit/pirated goods  | 923 – 1,130 billion dollars | 1,900 – 2,810 billion dollars |

Under such circumstances, the overseas expansion of Japanese industries, i.e., expansion of overseas distribution routes for genuine goods and other proactive measures, such as simultaneous distribution of genuine content, will be powerful aids in eliminating counterfeit/pirated goods. In order to further promote such efforts, firstly, it is important to

<sup>24</sup> OECD&EUIPO “Trade in Counterfeit and Pirated Goods” (April 2016)

<sup>25</sup> ICC (BASCAP) and INTA “THE ECONOMIC IMPACTS OF COUNTERFEITING AND PIRACY” (February 2017)

communicate with countries/regions where infringement is taking place and promote intergovernmental coordination and cooperation. In particular, in relation to China, where production bases for counterfeit/pirated goods are located and manufacturing techniques for such goods are notably being sophisticated in recent years, the fifth meeting of the Japan-China Joint IP Working Group was held in June 2016. At this meeting, the Japanese government and Chinese government shared trends for IP-related legislation and IP strategies in both countries, while also exchanging opinions on measures that will be promoted under bilateral cooperation, such as the strengthening of countermeasures for infringement of IP rights on the Internet and measures against counterfeit goods, which is now expanding beyond the circle of Japan and China to third markets. In particular, in relation to China, where production bases for counterfeit/pirated goods are located<sup>26</sup> and manufacturing techniques for such goods are notably being sophisticated in recent years, the fifth meeting of the Japan-China Joint IP Working Group was held in June 2016. At this meeting, the Japanese government and Chinese government shared the latest situation of IP-related legislation and IP strategies in both countries, while also exchanging opinions on measures to be promoted under cooperation of both countries, such as the strengthening of countermeasures for the infringement of IP rights on the Internet and measures against counterfeit goods, which are now expanding beyond the circle of Japan and China to third markets. In addition, Japan sent a private-public mission to governmental agencies in China from October to November 2016 to make a request for improving legal systems for IP right protection and tightening of regulations on infringement. Also, there recently has been some progress in relation to Middle East countries, which are said to be used as trade hubs for counterfeit/pirated goods<sup>27</sup> because of the free trade zones,<sup>28</sup> which purportedly contain distribution centers for such goods.<sup>29</sup> In September 2016, the Japanese government exchanged a cooperation agreement concerning counterfeit measures with the Saudi Arabian government, which is a major inflow country in the region. In addition, the United Arab Emirates (UAE) amended the Anti-Commercial Fraud Law<sup>30</sup> in December 2016 to add clear

---

<sup>26</sup> Ministry of Economy, Trade and Industry (Office of Intellectual Property Protection) “Annual Report on Consultation Concerning Anti-Counterfeit/Piracy Measures” (July 2016), p. 12

<sup>27</sup> Free-trade area. The enforcement of regulations is eased in these areas in order to promptly process imports and exports. This has been taken advantage of by parties with malicious intent to store and re-export counterfeit/pirated goods. In addition, manufacturing activities are also conducted, such as assembly and affixation of illegal labels.

<sup>28</sup> Aforementioned study by OECD

<sup>29</sup> Aforementioned Annual Report by the Ministry of Economy, Trade and Industry, p. 14

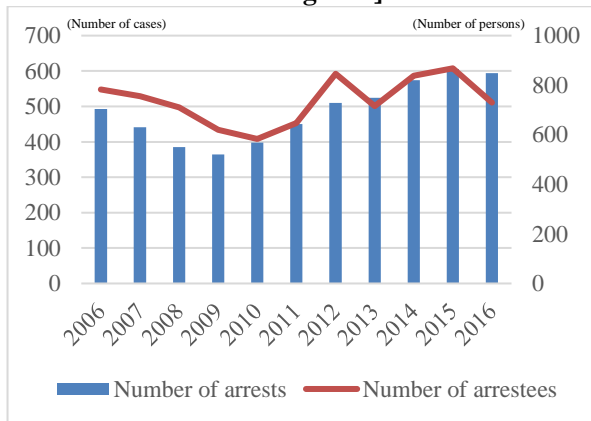
<sup>30</sup> A law in the United Arab Emirates (UAE) to regulate commercial fraud, including the ownership, storage, rental, advertisement, trade, etc. of inferior, defective or pirated products for the purpose of import, export,

statements concerning control of counterfeit goods in the free trade zones, etc.

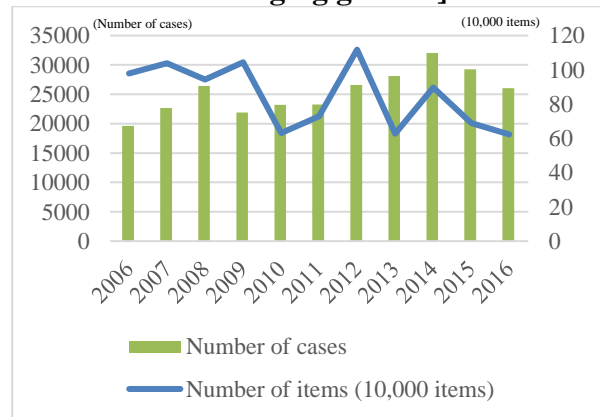
It is necessary to continue high-level intergovernmental talks, including those with other countries/regions where infringement is taking place, while also further strengthening coordination among domestic government agencies and organizations in order to take measures suited to the situation of infringement.

Secondly, it is also important to promote domestic anti-counterfeit/piracy measures, such as domestic and border control of pirated goods and raising public awareness. The number of arrests by the police based on IP right infringement is increasing in recent years. The number of imports of IP infringing goods detained at the customs has been over 20,000 for ten consecutive years (over 25,000 for five consecutive years). In light of the fact that the volume of counterfeit/pirated goods traded online is rapidly increasing, as will be discussed later, regulations must be continuously strengthened to minimize the distribution and inflow of such goods. With the public awareness activities conducted by individual ministries and agencies, including anti-counterfeit/pirated goods campaigns by the government, Japan needs to further fortify the resolve to avoid counterfeit/pirated goods, while also creating public awareness of the importance of refraining from accessing pirated content (infringing content) on the Internet.

[Changes in the number of arrests of IP rights infringers<sup>31</sup>]



[Number of import suspensions of IP rights infringing goods<sup>32</sup>]



Thirdly, it is important to take measures against counterfeit/pirated goods traded online, which are spreading in recent years due to the development of digital networks. On the Internet, counterfeit/piracy takes the form of "tangible objects," such as products with

re-export, manufacturing, sale and provision.

<sup>31</sup> National Police Agency "Concerning the Situation of Arrests, etc. Related to Economic Crimes in FY2016" (March 2017)

<sup>32</sup> Ministry of Finance "Customs Interdictions of Intellectual Property-infringing Articles in 2016" (March 2017)



fundamental solution for infringing content. Moreover, a report (March 2017) by the Task Force for Measures to Revitalize the Film Industry, which was established under the Verification, Evaluation, and Planning Committee in December 2016, also states that the government needs to further enhance its efforts for developing anti-reach site systems, including legislative measures.

## **(2) Measures for the Future**

In light of the current situation and challenges discussed above, the following initiatives are being promoted by relevant ministries and agencies as measures for the development of industrial infrastructure for the content field, including the overseas expansion of creative content, collaboration of the content field and other fields, human resource development, and elimination of counterfeit/piracy.

### **① Efforts for Ongoing Expansion of Content Overseas**

#### **(Creation, Dissemination and Promotion of Content for Overseas Expansion)**

- In addition to the supportive measures for the overseas expansion of Japanese content implemented so far, develop an environment for carrying out content production and promotion activities, with overseas markets taken into account from the planning phase, while also promoting cross-sectoral collaboration between content and other fields, such as tourism and manufacturing, in order to achieve overseas expansion in greater quality and quantity. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Make use of film localization projects funded by the Cool Japan Fund to develop a foundation for the comprehensive provision of localization, film editing and market development functions and thereby promote the broadcasting and distribution of Japanese creative content overseas. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Support the Tokyo International Film Festival as a core international festival, while also promoting Japan's outstanding content overseas through support for international art festivals, including international film festivals. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Foreign Affairs)

#### **(Market Penetration via Sustained Dissemination of Broadcast Content)**

- From the standpoint of easily and simply conveying Japanese culture, traditions, technology, industry and local regions, and thereby contributing to Japan's national inbound tourism expansion and "Cool Japan" and regional revitalization strategies, work with the Broadcast Program Export Association of Japan (BEAJ) and others to support the creation and sustained dissemination of content conveying the appeal of Japan, as well as support efforts to improve the technologies involved in creating and disseminating this content. Also, discuss methods for effective expansion of these efforts beyond ASEAN countries to Europe, North America and elsewhere. (Short-term,

Medium-term) (Ministry of Internal Affairs and Communications)

- Promote the sustained dissemination of Japanese creative content by making use of the Fund Corporation for the Overseas Development of Japan's ICT and Postal Services (JICT) to support overseas broadcasting projects carried out by Japanese businesses, while also making use of the Cool Japan Fund to support projects for cultivating overseas demand for attractive products or services featuring the characteristics of Japanese lifestyles and culture. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications)
- As part of the Visit Japan Project, work to contribute to the popularization of Japanese creative content, such as expanding the scope of Japanese broadcast content overseas. (Short-term, Medium-term) (Ministry of Land, Infrastructure, Transport and Tourism)

#### **(Getting Exposure for Japanese Content in Countries with Low Marketability)**

- Make use of overseas cultural events and other opportunities presented by Japanese consulates and the Japan Foundation to implement projects which contribute to the popularization of Japanese creative content conveying the various attractive elements of Japan. (Short-term, Medium-term) (Ministry of Foreign Affairs)
- In order to develop a foundation for communicating Japanese culture and expanding commercial opportunities in the future, have the Foreign Ministry and The Japan Foundation provide film and video content which a broad cross-section of people would find impressive to television stations in developing countries and elsewhere to be used in appropriate ways suited to that country's needs. (Short-term, Medium-term) (Ministry of Foreign Affairs)

#### **(Facilitation of Rights Clearance)**

- Promote public-private collaboration in each field to develop an aggregated database of rights information for creative content, etc., in order to make the rights clearance process smoother, thereby promoting the utilization of creative content. At the same time, conduct demonstration projects for integrating existing rights information and create a new database in FY2017, while also carrying out examinations for the development of a rights clearance platform utilizing said database. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Economy, Trade and Industry) [Reprint]

### **(Strengthening of Overseas Expansion-related Consulting Functions and Provision of Opportunities for Business Negotiations)**

- Make use of the Japan External Trade Organization (JETRO), Japanese consulates overseas and other Japanese organizations located outside Japan to facilitate introductions with local businesses and stakeholders, to provide information about the local situation and ongoing consultation services. Also, make use of JETRO and other suitable organizations to continually assist SMEs looking to expand overseas with business negotiation opportunities such as overseas trade fairs and overseas buyer invitations. (Short-term, Medium-term) (Ministry of Foreign Affairs; Ministry of Economy, Trade and Industry)
- Promote overseas expansion by providing consulting services and information for companies thinking of expanding overseas based on the expertise accumulated from the past overseas expansion projects, including the JLOP initiatives. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

### **(Sharing of Overseas Market Information)**

- In order to further promote overseas expansion of creative content in line with the needs of overseas markets, collect and analyze information concerning the local markets of countries in which government-aided projects are carried out and publicly disclose this information with the approval of the information providers. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry; Ministry of Foreign Affairs)
- In order to understand the economic effects of overseas expansion of creative content, work together with private sector organizations to decide on methods for ascertaining said effects. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry; relevant ministries and agencies)

### **(Strategic Dissemination of Japanese Culture)**

- Nominate artists and cultural figures as "Cultural Exchange Ambassadors" and send them overseas for a fixed period of time to provide lectures, performances, etc., related to Japanese culture; invite artists and cultural figures from overseas to come stay in Japan to engage in creative activities and exchange initiatives as "Artists in Residence" and communicate information on Japanese culture to people in their home countries. By such



initiatives, strengthen international cultural exchange projects and communicate Japan's attractive culture and art overseas. By this means, strategically promote international exchange and collaboration among people in the cultural field in various countries, especially in the East Asian countries, including China and Korea. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

- In order to expand the circle of international exchange and mutual understanding through the manga culture starting from Japan and spreading worldwide, give the Japan International MANGA Award to manga artists who contribute to the dissemination of manga culture overseas. In addition, invite award winners to Japan for opinion exchange with Japanese manga artists and visits to publishers and rural areas in Japan. (Short-term, Medium-term) (Ministry of Foreign Affairs)

## **② Strengthening of Collaboration between Content and Non-content**

### **(Strengthening of Overseas Expansion in Collaboration with Other Fields)**

- In order to maximize the expected ripple effect of creative content on various other fields, resulting in an increase in Japan fans overseas and tourists to Japan, promote overseas expansion of content in collaboration with projects in other fields and public-private and cross-sectoral collaborations through matching forums and seminars held under the Cool Japan Public-Private Partnership Platform. (Short-term, Medium-term) (Cabinet Office; Ministry of Internal Affairs and Communications; Ministry of Foreign Affairs; Ministry of Finance; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism; Ministry of the Environment; relevant ministries and agencies)
- Under the auspices of this Platform, and from the standpoint of effectively and broadly conveying Japan's attractive elements, from animation and other pop culture to more traditional arts and culture and food culture, as well as creating new Cool Japan-related industries which incorporate culture industries, provide backing for public-private initiatives aimed at building Cool Japan hubs in various places and foster the creation of networked interconnections between these hubs. (Short-term, Medium-term) (Cabinet Office; Ministry of Internal Affairs and Communications; Ministry of Foreign Affairs; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Ministry of Land,

Infrastructure, Transport and Tourism; relevant ministries and agencies)

**③ Development of Creative Environment for Creators (Fostering Human Resources for Content Creation and Business Development, Providing Creation Opportunities, and Securing Adequate Returns, etc.)**

**(Development of Human Resources to Support the Content Industry)**

- Develop an environment for strategically promoting the fostering and accumulation of "Cool Japan" human resources. This includes the following: clarifying what types of human resources are required for the Cool Japan-related industries, including the content field; providing support for developing programs to foster such human resources, including producers, creators, and high-level management personnel; development of a practical higher education system based on the industry's needs; fostering and effective utilization of human resources that are capable of producing local attractions and new local brands and disseminating this content overseas; and deciding on concrete measures based on what has been discussed concerning the utilization and accumulation of foreign human resources. (Short-term, Medium-term) (Cabinet Office; Ministry of Internal Affairs and Communications; Ministry of Foreign Affairs; Ministry of Finance; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism; relevant ministries and agencies)
- Promote cultivation of human resources that fulfill the needs of companies, industry organizations, etc., by such means as encouraging special vocational schools to collaborate with the content industry, etc. in developing and demonstrating educational programs that are readily available for working people, etc. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology)
- With regard to performers and artists, provide ongoing opportunities to go and train overseas in order to cultivate internationally-minded human resources. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Support creative activities of young creators and raise the level of those who will lead the next-generation media art field, while also developing an environment for fostering them. In addition, invite talented creators from overseas and promote international exchange in the media art field, while also cultivating domestic creators through such opportunities for international exchange and thereby promoting the improvement and development of

Japan's media art. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

- Utilize projects funded by the Cool Japan Fund to construct a local human resources development platform for supporting the overseas expansion of Japanese creative content. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Consider marketing and promotion measures to be conducted in collaboration with international fans of Japanese contents, including foreign students. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Provide training sessions for broadcast stations in overseas countries to improve their broadcast program development skills and communication skills, from the viewpoint of promoting international joint production. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications)
- Support fostering of internationally-minded producers to lead joint productions, etc., by holding seminars, etc., and providing opportunities to join internships at studios overseas. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Cultivate children's creativity and communication skills to foster future creators, by providing them with various kinds of cultural and art experiences (including media art) from a young age through school visits by creators, tour shows, workshops, and hands-on classes. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology)

**(Provision of Young Creator Cultivation and Presentation Opportunities)**

- In order to cultivate young creators in the field of animation, support on-the-job training for young animators working as staff members in the creation of original animation works and provide screenings and other opportunities for young animators to showcase their work. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to cultivate creators in media arts, such as animation, comics and video games, provide support for awards given to outstanding works at media arts festivals and support the exhibition of media arts award-winning works at overseas media arts festivals. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

### **(Financing Support for Creating Production Opportunities)**

- Consider measures to make use of public and private funds, etc. to supply risk money to the planning and production phases, which have strong needs for funds. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Consider approaches to specialist support from the viewpoint of legislation, accounting, etc., regarding diverse financing methods to promote overseas expansion of Japanese content. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

### **(Improvement of Content Creation Workplace Environments and Promotion of Fair Business Practices)**

- In order to assist in the cultivation of environments where the benefits obtained from business activities are properly returned to the content creation workplace and fair business practices are adhered to, ensure that the Anti-Monopoly Act and the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors are strictly enforced, and publicize and raise awareness of the Guidelines for Fair Business Practices with regard to the importance of improving the labor environment for creators and others. (Short-term, Medium-term) (Fair Trade Commission; Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry)
- Promote fair business practices by such means as holding seminars for disseminating the Subcontracting Guidelines and raising awareness in cooperation with industry organizations. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

### **(Discussion of the Internet-driven Provision of Broadcast Content)**

- In order to accommodate the diversification of content viewing environments and changing business models, ascertain the trends and opinions of relevant parties with regard to the issues and challenges involved in providing broadcast content over the Internet, and discuss what necessary and appropriate measures to take in response. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications; Ministry of Education, Culture, Sports, Science and Technology)

### **(Discussion of Systemic Issues)**

- In order to strengthen creative content industry foundations, examine finance procurement-related challenges, production committee system-related challenges and other challenges, and develop necessary measures which also take into consideration the

public financial support situation overseas. (Short-term, Medium-term) (Financial Services Agency; Ministry of Economy, Trade and Industry; relevant ministries and agencies)

#### **④ Promoting Utilization of New Technologies for Developing Content Expression**

##### **(Support for Utilization and Dissemination of Advanced Content Technologies)**

- Support content creation that contributes to regional revitalization and utilizes advanced content technologies, such as AR/VR, drones, and AI, while also identifying and disseminating optimal methods for utilizing advanced content creation and expression technologies. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

#### **⑤ Countermeasures against Counterfeiting and Piracy**

##### **(Combining the Expansion in the Distribution of Genuine Goods and Authorized Content with Counterfeiting and Piracy Countermeasures)**

- Together with the promotion of initiatives aimed at expanding the distribution of genuine goods and authorized content overseas, build stronger cooperative relationships among domestic ministries, agencies and organizations, and promote inter-governmental cooperation and public-private efforts aimed at other countries' governments to bolster counterfeiting and piracy countermeasures utilized in countries and regions where infringements are taking place. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Internal Affairs and Communications; Ministry of Finance; Ministry of Foreign Affairs; Ministry of Agriculture, Forestry and Fisheries)
- In order to foster closer relationships with the governments of countries and regions where infringements are taking place in order to promote stronger regulation and enforcement systems overseas, host training seminars, seminars about rendering authenticity determinations and other human resources development seminars aimed at the enforcement agency personnel of other countries, and also invite personnel from overseas to come to Japan to engage in opinion exchange. (Short-term, Medium-term) (Ministry of Finance; Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Justice)
- In order to promote the development of a copyright environment which includes piracy countermeasures, make use of the World Intellectual Property Organization and bilateral agreement frameworks to provide training and host seminars aimed at fostering the

adoption of collective licensing systems, and promote other awareness raising events and activities, such as copyright seminars. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

- Strengthen support for ASEAN countries where copyright infringements against Japanese content are taking place to develop an environment for appropriate use of copyrights and distribution of genuine goods by means such as fostering copyright collectives and strengthening anti-piracy measures. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to support Japanese companies' countermeasures against overseas counterfeiting and piracy and to promote effective IP rights protections, conduct local surveys dealing with IP rights systems, the status of IP infringement, etc. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Foreign Affairs)

#### **(Steady Implementation of Infringement Countermeasures and Awareness Raising Domestically)**

- Bolster cooperation with relevant organizations and rights holders to further strengthen domestic enforcement of laws aimed at the illegal distribution of counterfeit and pirated goods within Japan and to further strengthen border enforcement aimed at stopping the importation IP-infringing articles, which are increasingly being imported in smaller, more dispersed batches. (Short-term, Medium-term) (Ministry of Finance; National Police Agency)
- In order to further raise awareness of, and create a stronger mindset against purchasing or allowing counterfeit and pirated goods, promote awareness raising activities to be conducted jointly between various ministries and relevant organizations. (Short-term, Medium-term) (Ministry of Finance; National Police Agency; Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Consumer Affairs Agency)

#### **(Countermeasures for Counterfeiting and Piracy on the Internet)**

- In relation to countermeasures against piracy on the Internet, support discussion for online advertisement measures in the private sector, while also continuing discussion among related ministries and agencies on comprehensive matters such as anti-reach site measures and issues concerning website blocking. (Short-term, Medium-term) (Cabinet

Office; related ministries and agencies)

- In relation to measures against the act of leading Internet users to infringing content through reach sites, accelerate discussion concerning specific issues, including legal matters, based on the opinions of stakeholders and keeping in mind the balance between rights protection and freedom of expression. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Promote concrete measures concerning online advertisement, including provision of support for promoting discussion in the private sector. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Enhance the effectiveness of countermeasures against counterfeiting and piracy on the Internet by supporting the private sector's efforts and strengthening cooperative relationships with "platformers," including flea market apps, internet service providers (ISP), and right holders. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Internal Affairs and Communications)

## **2. Revitalization of the Film Industry**

### **(1) Current Situation and Challenges**

As stated above, the content industries, such as comics, animations, films, music, video games and broadcast programs, are expected to lead the Cool Japan Strategy. Among them, film is a comprehensive art form containing elements such as the original work (novels, comics, etc.), music, movies, and animation, and thus it has a great ripple effect to other fields. It is a source of great expectations as it can play the roles of triggering goods and service export, introducing Japanese culture, and leading national strategies, including the Cool Japan Strategy and "tourism-oriented country" strategy.

The market size of the Japanese Film Industry is approximately 200 billion yen. It had long had a strong presentation in the global market as the second largest market next to the United States. Although China has taken over this place in recent years, the box office revenue in Japan was a record 235.5 billion yen in 2016. The number of visitors to movie theaters also recovered to over 180 million for the first time in 42 years. The power of film is drawing attention again.

Against this backdrop, the Intellectual Property Strategy Promotion Bureau established the Task Force for Measures to Revitalize the Film Industry under the Verification,

Evaluation, and Planning Committee for conducting discussion concerning measures for further strengthening the foundation for film production. Based on the results of this discussion, issues and future directions are summarized as follows.

<Current Situation and Challenges Concerning the Strengthening of the Foundation for Film Production>

The Japanese government supports the production of Japanese films through such programs as the Japanese Film Production Support Program, which is carried out by the Agency for Cultural Affairs. This Program provides approximately 400 to 500 million yen to support production activities for outstanding Japanese films. The works created with subsidies from this Program include some hits that also had successful records in overseas. The Program has yielded some definite results in terms of revitalization of Japanese films.

To secure creation opportunities for "challengers" and "next-generation leaders" among small and medium-sized production companies and individual creators is an extremely important aspect in maintaining and bolstering the attraction of Japanese films. In regards to this point, these entities have poor access to funds that can be used to produce films, etc. on their own. As a result, many of them are making compromises to work as a subcontractor of a production committee. Meanwhile, France and many other countries not only provide support for the overseas expansion and distribution phase, but also provide a considerable amount of subsidies for the planning, development and production phase as well. Japan also needs to consider strengthening government-aid support for the production area once again.

At the same time, it is also important to diversify financial sources from the viewpoint of providing creation opportunities for small- and medium-sized production companies and individual creators. Some new financing methods are on the rise in recent years, such as crowdfunding<sup>36</sup> and finance procurement from overseas distribution companies. While the private sector is expected to make constant efforts to acquire new investors such as those mentioned above, the government needs to work on the systemic aspects, including legislation concerning tax, accounting and investment related to said efforts by companies in the private sector. In particular, it needs to seek measures to promote diversification of financing methods for small- and medium-sized production companies.

---

<sup>36</sup> A funding method that collects relatively small amounts of finance from many and unspecified corporate and individual investors through a website. Crowdfunding is categorized into purchase-type and investment-type, according to the types of returns. With purchase crowdfunding, investors pay the fee for products in advance and the products are delivered to them later. With investment-type crowdfunding, investment is made under an anonymous partnership agreement with the entity carrying out the project. Said entity distributes income from the project to the investor.



There are various options for measures to address production support and financing, from the provision of conventional subsidy-type resources to the supply of capital resources utilizing public-private funds. Some countries have an independent subsidy system for the cultivation of new talent from the one for the support of directors, producers, etc. that have a certain level of achievement. Japan also needs to consider developing systems from two aspects of [1] enhancement of subsidy programs for new talent and highly artistic works, and [2] supply of risk money to creators with a certain level of achievement. It is necessary to build a comprehensive and seamless system in which "challengers," including directors, producers and small- and medium-sized production companies, are able to chart their future career paths.

In addition, human resource development is another important issue in developing the foundation to maintain and gain the attraction of Japanese films. There is a certain limit on investments that individual companies can make in mid- to long-term human resource development projects, because it takes time to foster human resources and because the content industry mostly consists of small- and medium-sized companies. The government needs to continue to play a certain role in human resource development from a mid- to long-term point of view. It is also meaningful that the government will clarify what types of human resources are required in the industry and specify the content of necessary education, in order to create a broader human resource base through collaboration between content-producing entities and higher education institutions.

#### <Current Situation and Challenges Concerning Overseas Expansion of Films>

While there is still room for further expanding the domestic market by developing foundation to promote the creation of attractive works, there is a concern that the market itself will start to shrink in the mid to long term due to the decreasing population in Japan. In order to maintain and strengthen the production of attractive works, it is necessary to expand the market as a whole, including overseas markets, and maintain it in a size that is more than sufficient to collect production costs.

The overseas expansion of Japanese films and acquisition of overseas markets are to be led by the private sector in principle. On the other hand, the government also needs to play a large role in promoting measures to drastically refigure the market from both the qualitative and quantitative aspects. Such measures include the development of a foundation for acquiring new markets, measures related to compliance with regulations, and anti-piracy

measures. From this point of view, the government needs to continue to work on measures to support the private sector's efforts, such as existing cultural exchange projects, inter-governmental talks, and support and promotion of international joint production.

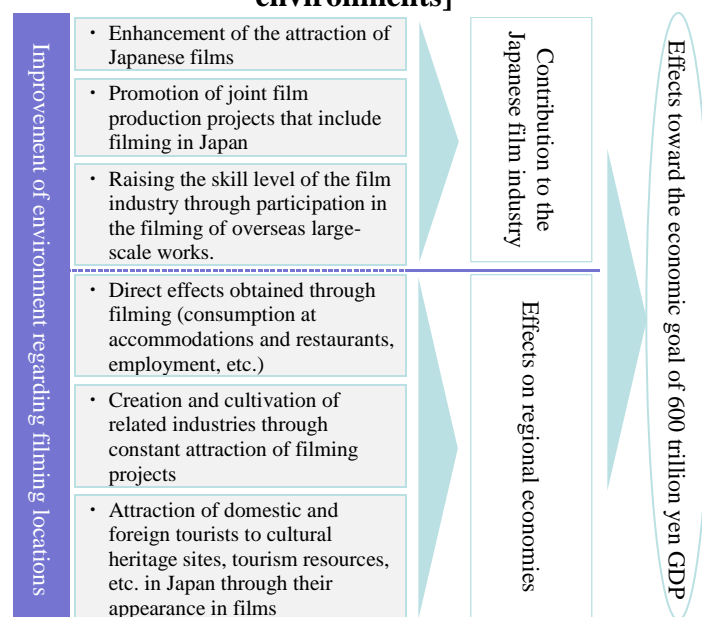
In order to fundamentally strengthen overseas expansion, it is also necessary to manage rights from the production phase if content is aimed at overseas expansion from the start, so as to reduce rights-related management and negotiation costs. While the private sector is expected to proactively make such efforts, the government can also effectively support such efforts by developing infrastructure that facilitate the diversification of finance procurement methods. In particular, when small- and medium sized companies expand to overseas or procure finance from overseas, it is possible that they will be involved in unexpected troubles, etc. due to difference in contract-related practices and the lack of understanding of applicable laws and regulations in other countries. Thus, it is necessary to identify challenges and strongly promote knowledge sharing, in addition to the existing overseas expansion support measures, so as to further promote overseas expansion.

#### <Current Situation and Challenges Concerning Location Support>

Film commissions established under individual local governments carry out activities related to the filming of films, TV programs, etc. in Japan. The mission of these commissions is to contribute to regional revitalization by supporting filmmakers in their filming activities. The number of the film commissions has been increasing since 2000. Today, approximately 300 film commissions are under operation across the country. Thanks to their activities, filming is becoming easier in more and more cities and regions in Japan. On the other hand, however, the environment for filming cinematic works in Japan is not necessarily excellent compared to other countries. Some have pointed out that even foreign works based on Japanese original works and stories set in Japan are often filmed in other countries

In this regard, some countries centralize the management of license and approval for filming and provide preferential treatment aimed at attracting overseas projects looking for filming locations, as a measure to proactively invite large-scale projects to their countries. The aims of such countries proactively attracting overseas filming projects include regional revitalization through the acquisition of foreign currency and creation of job opportunities, cultivation of the domestic film content industry, and promotion of inbound tourism. In Japan, too, positive effects on the domestic film industry and regional economies could be achieved by improving the environment regarding filming locations for domestic and overseas film content and facilitating filming in individual regions.

**[Effects that can be achieved through the improvement of filming location environments]**



In light of these effects on the Japanese economy, Japan also needs to bolster support concerning filming locations so as to create a virtuous cycle of raising the standards of the film industry and contributing to regional economies through the promotion of the use of regions as filming locations.

**(2) Measures for the Future**

In light of the current situation and challenges discussed above, the following initiatives are being promoted by relevant ministries and agencies as measures for strengthening infrastructure for the film industry and promoting overseas expansion of films.

**① Efforts for Strengthening Infrastructure for the Film Industry**

**(Enhancement and Strengthening of Existing Subsidy Programs)**

- In order to further strengthen support for Japanese films created by small- and medium-sized production companies and creators, reform the existing support options to a more diverse one by including planning and development support and assistance for large-scale works. In addition, improve the subsidy systems by enabling multiple-year support and simplifying application documents. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- Consider approaches to support for commercializing cutting-edge film works, while also maintaining and increasing Japanese film festivals and other screening opportunities for

Japanese films in overseas countries. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Foreign Affairs)

- Identify issues concerning the government-run support systems based on film-related subsidy systems in other countries (Short-term, Medium-term) (Cabinet Office; relevant ministries and agencies)
- Toward the Tokyo 2020 Olympic/Paralympic Games, consider support for film screening aimed at foreign viewers so as to proactively promote inbound tourism. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; relevant ministries and agencies)

#### **(Diversification of Financing Methods)**

- In order to promote overseas expansion of small- and medium-sized production companies, etc., carry out verification projects concerning finance procurement support by lawyers and accountants with a view to establishing optimal funding methods and clarify applicable laws and regulations in other countries and things to be noted in the selection of finance procurement vehicles (organizations), scheme development, and concluding contracts. Widely disseminate the knowledge based on the results of said demonstration projects. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Clarify how the Financial Instruments and Exchange Act applies in the settings of finance procurement for content projects by developing and disseminating guidelines in the Q&A format, with a view to improving the environment for procuring necessary funds. (Short-term, Medium-term) (Financial Services Agency; Ministry of Economy, Trade and Industry)
- In order to supply funds to small- and medium-sized production companies, individual creators, etc. and secure opportunities for producing various film content, consider measures to supply risk money to the planning and production phases, which have strong needs for funds, by utilizing public and private funds, etc. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; relevant ministries and agencies)

#### **(Human Resource Development)**

- Develop an environment for strategically promoting the fostering and accumulation of "Cool Japan" human resources. This includes the following: clarifying what types of human resources are required for the Cool Japan-related industry, including the content

field; providing support for developing programs to foster such human resources, including producers, creators, and high-level management personnel; development of a practical higher education system based on the industry's needs; fostering and effective utilization of human resources that are capable of producing local attractions and new local brands and disseminating them to overseas; and deciding on concrete measures based on what has been discussed about the utilization and accumulation of foreign human resources. (Short-term, Medium-term) (Cabinet Office; relevant ministries and agencies) [Reprint]

- Promote cultivation of human resources that fulfill the needs of companies, industry organizations, etc., by such means as encouraging special vocational schools to collaborate with the content industry, etc. in developing and demonstrating educational programs that are readily available for working people, etc. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology) [Reprint]
- Support fostering of internationally-minded producers to lead joint productions, etc., by holding seminars, etc. and providing opportunities to join internships at studios overseas. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]
- Foster young filmmakers by providing them with opportunities to learn skills and knowledge required for film production, through means such as workshops and production of short films. At the same time, provide support for the acceptance of student apprentices at film production workplaces (internship). (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

#### **(Augmentation of Film Archives)**

- Enhancing the communicative power of Japanese films for both domestic and international markets by bolstering the functions of the National Film Center to collect, store and utilize Japanese films for the purpose of augmenting the film archives. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

## **② Efforts for Qualitative and Quantitative Promotion of Overseas Expansion**

### **(Support for Market Development and Expansion of Overseas Markets)**

- With a view to promote market development and expansion of overseas markets, continue to provide Japanese films to overseas film festivals in countries where commercial and cultural communication can be carried out effectively while also carrying out Japanese film screening projects and other cultural exchange programs in

Asian countries. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Foreign Affairs)

- In order to stimulate interest in Japanese films and raise their profile in individual countries, utilize the "'WA Project' - Toward Interactive Asia through 'Fusion and Harmony'" of the Japan Foundation ASIA CENTER in order to: show Asian films at the Tokyo International Film Festival; introduce Japanese films to Asia; invite filmmakers to Japan; and carry out other arts and culture initiatives which will facilitate cultural exchange and the creation of mutual networks between Japan and Asia. (Short-term, Medium-term) (Ministry of Foreign Affairs)
- In addition to the supportive measures for the overseas expansion of Japanese content implemented so far, develop an environment where content production and promotion will be promoted, including overseas markets in mind from the planning phase, while also promoting cross-sectoral collaboration between content and other fields, such as tourism and manufacturing, in order to achieve a deepening of overseas expansion in terms of both quality and quantity. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]
- Support the Tokyo International Film Festival as a core international festival, while also promoting Japan's outstanding content overseas through support for international art festivals, including international film festivals. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Foreign Affairs) [Reprint]
- Consider measures to promote business negotiations with companies proactively engaging in overseas expansion through international trade fairs that collect Japan's major creative content, such as film, music, and animation. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

#### **(Improving Overseas Market Environment)**

- In order to accommodate large-scale international joint film production projects between Japan and other countries, raise the maximum grantable amount of subsidies and increase flexibility concerning multiple-year support, while also promoting international cultural exchange via film and securing screening opportunities in overseas countries. In addition, develop the foundation to facilitate international joint production, including negotiation with China on an international joint production agreement. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports,

Science and Technology; Ministry of Foreign Affairs; relevant ministries and agencies)

**(Bolstering Anti-Piracy Measures)**

- Together with the promotion of initiatives aimed at expanding the distribution of genuine goods and authorized content overseas, build stronger cooperative relationships among domestic ministries, agencies and organizations, and promote inter-governmental cooperation and public-private efforts aimed at other countries' governments to bolster counterfeiting and piracy countermeasures utilized in countries and regions where infringements are taking place. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Internal Affairs and Communications; Ministry of Finance; Ministry of Foreign Affairs)

**(Developing the Domestic Environment that Supports Overseas Expansion)**

- Promote overseas expansion by providing consulting services and information for companies thinking of expanding overseas based on the expertise accumulated from the past overseas expansion projects, including the JLOP initiatives. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]
- In order to promote overseas expansion of small- and medium-sized production companies, etc., carry out verification projects concerning finance procurement support by lawyers and accountants with a view toward establishing optimal funding methods and clarify applicable laws and regulations in other countries and things to be noted in the selection of finance procurement vehicles (organizations), scheme development, and concluding contracts. Widely disseminate the knowledge based on the results of said demonstration projects. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reprint]
- Consider measures to supply risk money to the planning and production phases, which have strong needs for funds, by utilizing public and private funds, etc. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry; relevant ministries and agencies) [Reprint]

### ③ Efforts for Strengthening Location shooting Support

#### (Initiatives for Improving the Filming Environment)

- In order to improve the filming environment in Japan, establish a liaison conference consisting of specialists and representatives from the public and private sectors to exchange the latest information on license and approval deeply associated with location shooting, identify best practices and share know-how related to the acquisition of license and approval. In addition to the meeting of this conference, carry out verification of the cases of location shooting support for specific domestic and overseas films to develop a support flow diagram. (Short-term, Medium-term) (Cabinet Office; relevant ministries and agencies)

#### (Attracting More Overseas Filming Projects)

- Carry out investigations on other countries regarding systems, economic ripple effect, etc. concerning attraction of overseas filming projects. In addition, identify the current situation of the filming environment in the urban areas that attract many overseas filmmakers and issues concerning the acceptance of overseas filmmakers at location shooting. (Short-term, Medium-term) (Cabinet Office; relevant ministries and agencies)
- In order to promote film production and revitalize creation activities, collect information on location shooting in Japan, introduce it to film commissions in individual regions, and further strengthen the dissemination of such information domestically and internationally. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)
- From the viewpoint of promoting inbound tourism, invite foreign media to Japan so that the attractions of Japan will be communicated to other countries through interviews on regional tourism resources. In addition, consider approaches to location scouting support for overseas filmmakers with a view to attracting overseas film works that contribute to the promotion of inbound tourism. (Short-term, Medium-term) (Ministry of Land, Infrastructure, Transport and Tourism)

#### (Promoting Regional Revitalization Utilizing Film content, etc.)

- In order to support tourism-driven regional development and city promotion making use of opportunities to be used as location shooting, build a network of regions across the country that are engaging in location tourism and support development of a manual containing know-how on different matters ranging from attracting filming projects to



dissemination of tourist information. (Short-term, Medium-term) (Ministry of Land, Infrastructure, Transport and Tourism)

### **3. Development of Digital Archives**

#### **(1) Current Situation and Challenges**

Developing digital archives of various creative content in Japan enables us to collect the country's knowledge beyond the boundaries of sectors and regions. They can be also utilized for academic research, education, disaster prevention and business. Moreover, by adding and enhancing their functions to disseminate information overseas, we can promote inbound tourism and stimulate studies on Japan in overseas countries.

In Japan, digital archive development is promoted by individual sectors, such as the National Diet Library in the books and publication field and Agency for Cultural Affairs (Cultural Heritage Online) in the cultural heritage field, which are both seeing some measurable results. On the other hand, efforts for cross-sectoral archive collaboration and utilization of such archives, including dissemination of information overseas, have not yet reached a sufficient level compared to Western countries.

In this context, with the aim of fostering the construction and utilization of digital archives in Japan, the "Intellectual Property Strategic Program 2016" lays out three promotion initiatives: (1) "Promotion of cross-archival collaboration," as exemplified by the construction of an integrated portal website enabling cross-sector collaboration; (2) "Promotion of efforts in each field," centering on aggregators within each field; and (3) "Improvement of infrastructure for archive utilization," involving systemic accommodations for data storage and utilization.

Based on this Program, the Coordination Committee of Digital Archive-related Ministries and Agencies and the Practitioners' Council were established in FY2015. They carried out discussion on practical issues concerning the construction and utilization of digital archives and future policies for addressing such issues. Based on the results, they summarized the future directions for the government's initiatives in a report<sup>37</sup> published in April this year and formulated guidelines<sup>38</sup> on how archive institutions should handle metadata and indicate

---

<sup>37</sup> Coordination Committee of Digital Archive-related Ministries and Agencies and the Practitioners' Council, "Direction of Digital Archive Promotion in Japan" (April 2017)

<sup>38</sup> Coordination Committee of Digital Archive-related Ministries and Agencies and the Practitioners' Council, "Guidelines on the Development, Sharing and Utilization of Digital Archives" (April 2017)

terms of its use.

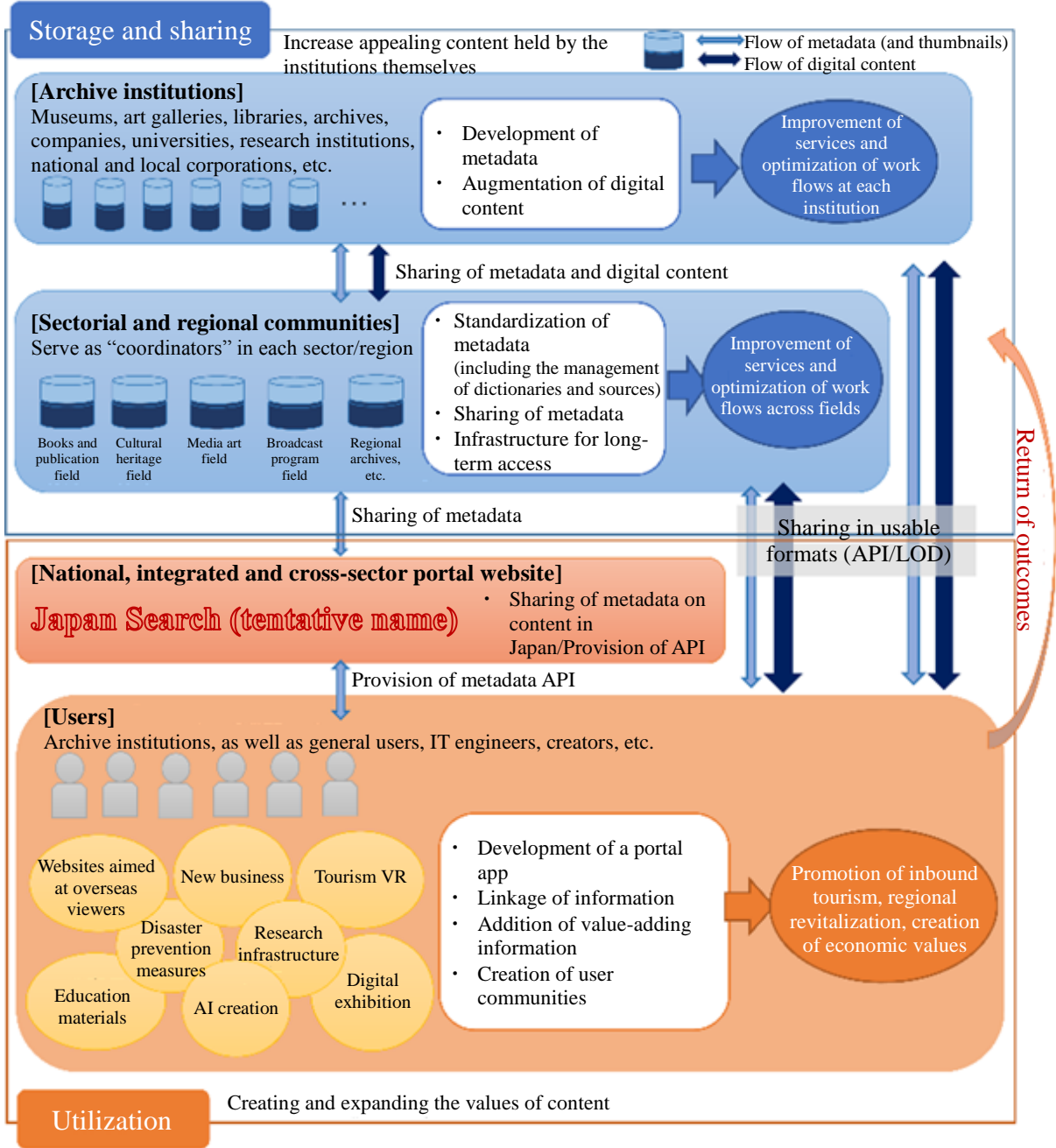
In addition, the copyright system is also being revised for archive utilization. For example, as a result of such revision, the system could be reformed to allow persons who lawfully exhibit copyrighted artworks or photographs to send a thumbnail of said copyrighted works via the Internet as long as it is deemed necessary.

In order to realize society where digital archives are utilized in day-to-day life domestically and internationally and function as the foundation for creating new content and innovations before the Tokyo 2020 Olympic and Paralympic Games, it is necessary to accelerate efforts under collaboration between the government, etc. and the "coordinators" that connect individual archive institutions.

Archive institutions are required to work on the development and sharing of metadata based on the recently formulated guidelines, while creating and enriching digital content and promoting system development. In addition, the "coordinators" are required to play the role of standardizing metadata items in each field by field-specific standard metadata items. Furthermore, they also need to support cultivation of human resources that are capable of handling technical and legal issues at archive institutions so that the digital archive infrastructure will be maintained in each field from a long-term perspective.

Moreover, the government needs to provide sufficient support for efforts by individual archive institutions and coordinators and promote the development of a cross-sectoral integrated portal website. The integrated portal website is expected to enable cross-sectoral searching, collection and sharing of metadata compiled by archive institutions and coordinators, and contribute to the utilization of such data by users in various ways. Furthermore, it is also important to provide opportunities where representatives from industry, academia and government can gather to create the common understanding of issues regarding various efforts and collaborate and cooperate with each other in addressing them. It is important that the government proactively promote such efforts.

**[Conceptual diagram of the integrated portal website and its utilization]**



**(2) Measures for the Future<sup>39</sup>**

In light of the current situation and challenges discussed above, the following initiatives are being promoted by relevant ministries and agencies as measures for developing a cross-sectoral integrated portal website in Japan and promoting collaboration and utilization of digital archives.

<sup>39</sup> Although the National Diet Library belongs to the legislative body, it is stated among the names of ministries and agencies in charge under the Intellectual Property Strategic Program 2017, since archive-related measures are to be addressed by the whole government and the institution plays an important role here.

## **(i) Promotion of Inter-archival Collaboration and Utilization**

### **(Holding an Industry-Academia-Government Forum Concerning Digital Archives)**

- Hold a forum to gather representatives from the industry, academia and government to share information and exchange opinions by the end of FY2017 to facilitate cooperation toward the development and utilization of digital archives, etc. In addition, in order to address practical issues concerning the promotion of digital archives, hold a conference with people from various fields, including those from the National Diet Library, to discuss evaluation systems and other issues concerning digital archive development and utilization as well as measures to promote human resource development, etc. (Short-term) (Cabinet Office; National Diet Library; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry; relevant ministries and agencies)

### **(Formulating a Schedule for Promoting Digital Archives)**

- In order to promote efforts for developing digital archives of various content in Japan in different fields, formulate a schedule by the end of FY2017 and share it with persons involved. (Short-term) (Cabinet Office; National Diet Library; relevant ministries and agencies)

### **(Construction of the National Integrated Portal Website)**

- In order to construct a national, integrated and cross-sector portal, consider and coordinate metadata-level collaboration between key archives operated by the National Diet Library and coordinators in various fields by the end of FY2017. In particular, accelerate efforts for realizing the linkage of external link interfaces (API) between "National Diet Library Search" and "Cultural Heritage Online." With regard to other fields, continue to identify challenges for archive inter-linkage, and promote efforts to develop portal sites in specific fields and regions which can serve as precedents for the National Diet Library and coordinators, with the ultimate aim of developing an integrated portal website. (Short-term, Medium-term) (National Diet Library; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry)
- Work on the solution of data format-related and other issues toward the establishment of the national, integrated and cross-sectoral portal website "Japan Search (tentative name)" by 2020. (Short-term, Medium-term) (National Diet Library)

### **(Compliance with the Guidelines by National Archive Institutions)**

- National archive institutions will complete the sharing of metadata and indication of terms of use by 2020 in compliance with the "Guidelines on the Development, Sharing and Utilization of Digital Archives." (Short-term, Medium-term) (National Diet Library; Ministry of Education, Culture, Sports, Science and Technology; relevant ministries and agencies)

### **(Collaboration to Promote Utilization)**

- In order to raise awareness about the significance of linking digital archives, use forums to help compile and circulate usage examples of aggregated and shared content and meta-data and examples of the effects that such archival inter-linkage has; also, discuss and establish necessary measures for dealing with specific issues involved in utilization promotion. (Short-term) (Cabinet Office; National Diet Library; relevant ministries and agencies)

### **(Promotion of Regional Inter-archival Collaboration)**

- Make use of the public data clouds and "Furusato Digital Libraries," utilized by local governments to store data, in order to promote the gathering and utilization of regional cultural and historical data and other similar content. (Short-term, Medium-term) (Ministry of Internal Affairs and Communications)
- In order to promote the construction and inter-linkage of regional archives, use forums to discuss the form and manner of cooperation and inter-linkage between regional organizations. (Short-term, Medium-term) (Cabinet Office; National Diet Library; relevant ministries and agencies)

## **② Promotion of Efforts in Each Field**

### **(Field-specific Coordinator-driven Initiatives and Support)**

- The National Diet Library, Broadcast Programming Center of Japan (for the broadcast content of both Japan Broadcasting Corporation (NHK) and private TV stations) and NHK (for only NHK content), and Agency for Cultural Affairs will serve as the coordinators for the fields of books and publications, broadcast content, media art, including movies, video games and animation, and cultural properties, respectively. Those organizations will provide help with the digitalization of archive collections and the consolidation of metadata in each field, including the development of archive creation

policies, such as the selection of target data and the standardization of metadata formats. (Short-term, Medium-term) (Cabinet Office; National Diet Library; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry)

- Promote discussion on support measures for archive institutions and formulate a budget based on the results by the end of FY2017. (Short-term, Medium-term) (Cabinet Office; National Diet Library; Ministry of Education, Culture, Sports, Science and Technology; relevant ministries and agencies)

#### **(Cross-sectoral Efforts)**

- Promote the development of digital archives of documents, photographs and other materials concerning the Meiji Period, marking the 150th anniversary from its beginning. (Short-term) (Cabinet Secretariat: relevant ministries and agencies)

#### **(Books and Publications Field)**

- In order to promote digitalization of public and university libraries' archive collections, and with the aim of expanding content, provide training in the procedures of archive development. (Short-term) (National Diet Library; Ministry of Education, Culture, Sports, Science and Technology)
- In order to strengthen collaboration with the government's integrated portal site, provide recommendations to public and university libraries concerning attaching metadata tags and using external link interfaces (API) to publicize digitized materials, and circulate and publicize information necessary for the promotion of archive collection digitalization and archive inter-linkage efforts. (Short-term) (National Diet Library; Ministry of Education, Culture, Sports, Science and Technology)
- Continue work on the digitalization of the National Diet Library's collection, and strengthen efforts aimed at promoting the use of digitized data. (Short-term) (National Diet Library)

#### **(Cultural Properties Field)**

- With the aim of making Japanese cultural property data available to the world by the time of the 2020 Tokyo Olympics/Paralympics, facilitate efforts to aggregate data related to cultural resources, including regional cultural resources other than those designated as national treasures or important cultural properties, which comprise Japan Heritage, and promote efforts contributing to improved image publication rate and utilization,

including multilingualization. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology)

- Using past efforts as a point of reference, disseminate information to local museums and art galleries which is necessary for the promotion of digital archiving and the effective use of cultural assets, etc., in regional museums and art galleries. In addition, discuss and implement specific measures for encouraging museums and art galleries to perform digital archiving of their paper-based collection inventory. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology)
- In order to make use of digital archives of cultural heritage to boost inbound tourism, develop digital archives with the latest technologies and consider measures for attracting inbound tourism. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Land, Infrastructure, Transport and Tourism)

**(Media Art Field, etc.)**

- Support the establishment of information centers by carrying out projects to facilitate industry-academia-government collaboration, operate and utilize information on the stock of media art works to serve as the foundation for their storage and utilization, and promote the development of digital archives of media art works at research institutions, etc. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology)
- The National Film Center at the National Museum of Modern Art will promote efforts for the development and utilization of digital film archives. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology)
- To prevent the scattering and loss of Japan's precious cultural documents of high historical and cultural value, conduct study and research on approaches to a desirable system for storing and utilizing materials in relation to the development of digital archives. (Short-term) (Ministry of Education, Culture, Sports, Science and Technology)

**(Broadcast Content Field)**

- In order to promote the use of archives in the field of broadcast content, continue to implement initiatives connected with the use of broadcast content for educational purposes in schools and at remote locations. (Short-term) (Ministry of Internal Affairs and Communications)

### ③ **Development of Infrastructure Aimed at Archive Utilization**

#### **(Promotion of Open Digital Archives)**

- Disseminate the Guidelines on the Development, Sharing and Utilization of Digital Archives and carry out initiatives to promote the expansion of digital content, indication of terms of use, and promote the distribution of metadata and content at individual archive institutions and coordinators. (Short-term, Medium-term) (Cabinet Office; National Diet Library; relevant ministries and agencies)

#### **(Development of a Copyright System for Promoting Archive Construction and Utilization)**

- Engage in concrete discussion with regard to the utilization of digital data related to the works exhibited in art museums and elsewhere in order to introduce and explain those works and enact necessary measures for the early submission of a bill based on the Intellectual Property Strategic Program 2016. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

#### **(Development of a Peripheral Environment Promoting Utilization)**

- Promote public-private collaboration in each field to develop an aggregated database of rights information for creative content, etc., in order to make the rights clearance process smoother, thereby promoting the utilization of creative content. At the same time, conduct demonstration projects for integrating existing rights information and create a new database in FY2017, while also carrying out discussions for the development of a rights clearance platform utilizing said database. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Economy, Trade and Industry) [Reprint]
- In order to promote digital content utilization, facilitate efforts by the International Organization for Standardization's (ISO) TC46 aimed at internationally standardizing rights notices, so as to encourage secondary utilization of digital content. (Short-term, Medium-term) (Ministry of Economy, Trade and Industry)

#### **(Cultivation of Archive-related Human Resources)**

- In order to continue capitalizing on the know-how and results obtained from archive construction thus far and support the development of human resources capable of driving archive construction, while also supporting archive utilization, hold symposiums,



provide training and offer other events aimed at relevant parties in universities, research institutions and private-sector facilities to raise awareness about the importance of archives and the personnel connected with them. (Short-term, Medium-term) (National Diet Library; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Internal Affairs and Communications)

- In light of the Ministerial Ordinance revisions (Ordinance of the Ministry of Education, Culture, Sports, Science and Technology No. 21 and 22 of 2009) which established new digital archive-related subjects within the training curriculum for university librarians and curators starting in 2012, foster a greater emphasis on cultivating human resources possessing specialist expertise in digital archives. (Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)