

Intellectual Property Strategic Program 2022

~ Transformation to an economic society where
motivated individuals and players can fully utilize
society's IP and intangible asset ~

June 3, 2022

Intellectual Property Strategy Headquarters

I. Introduction.....	3
II. Basic Understanding	5
1. Japan's Innovation slump	5
2. Changes in the global competitive environment – Global trends compelling changes in the IP strategy ...	6
3. Japan’s IP ecosystem that fails to sufficiently contribute for innovation	8
4. Future IP strategy directions	12
III. The Eight Priority Policies of the IP strategy.....	14
1. Enhancing the IP ecosystem of startups and universities.....	14
(1) Improving an environment that facilitates startup's utilization of shares and stock acquisition rights as compensation for the IP.....	17
(2) Supporting for acquisition of rights in anticipation of commercialization at universities... ..	19
(3) Promoting the utilization of joint research results at universities	24
(4) Building match ecosystems based on the IP visualization	28
(5) Ecosystemization of the IP strategy support services for startups	28
(6) Promoting the provision of management assets for startups by large enterprises, etc.	31
(7) Correction of unfair trades by large enterprises	33
(8) Formulating of the “University Intellectual Property Governance Guidelines (provisional name)” and percolating into universities	34
2. Strengthening the investment and utilization promotion mechanism of the IP and intangible assets	37
3. Promoting the strategic use of standards.....	43
(1) Combined efforts by the public and private sectors to promote the focused use of standards	43
(2) Strategic acquisition and utilization of standard essential patents	48
4. Improving of data distribution and utilization environment toward the realization of a digital society	50
5. Content strategies in the digital age	59
(1) Content strategies in anticipation of WEB3.0 age	60
(2) Reforming of copy right systems and related policies in response to the digital age	68
(3) Realization of a digital archive society	72
(4) Strengthening measures against pirated and counterfeit products	74
(5) Support for film productions through the improvements of filming environments	77
6. Enhancing the IP utilization in SMEs, regional (areas), and agricultural sciences	78
(1) Supporting the IP utilization in SMEs and regional (areas)	78
(2) Ensuring appropriate IP transactions of SMEs	81
(3) Enhancing the IP utilization in agricultural sciences	82
7. Strengthening systems, operations, and human resource foundations that support the IP utilization	86
(1) Infrastructures for the IP dispute resolution	86
(2) Reinforcement of examination infrastructure for the IP rights	88

(3) Developing human resources for the IP creation and utilization 90

8. Restarting the Cool Japan (CJ) in anticipation of post-COVID..... 92

(1) The three methods for restarting the CJ strategy 94

(2) Efforts of the relevant ministries and agencies in regard to restructuring the CJ strategy 103

9. Work Schedule 112

I. Introduction

The key policies such as “strengthening the functions of capital and financial markets that encourage investment and utilization of the intellectual property (IP)”, “promoting the strategic use of standards”, “improving the environment for data utilization”, “content strategies adapted to the digital age”, and “restructuring the CJ strategy” are to promote in the “Intellectual Property Strategic Plan 2021” (approved by the Intellectual Property Strategy Headquarters in July 2021). The efforts in accelerated digitalization toward the “new normal” and green in response to global agendas including climate changes are important in order for Japan to survive in the fierce competition triggered by the challenge of these two issues under the recognition the need to maximize the power of innovation, integrating all intangible assets from narrowly defined IP rights as resources for innovation, the investment in the IP and intangible assets and their strategic utilization for drastically strengthen the IP strategy activities.

Based on the above mentioned, regarding the individual key measure, “Disclosure of IP and Intangible Assets Investment and Utilization Strategy, and Guideline for Governance Ver 1.0 (Abbreviation: The IP and Intangible Assets Governance Guidelines)” was announced in January of this year through the consideration of the “Effective Disclosure of the IP Investment and Utilization Strategies, and Governance meetings”; “Implementation Guidance for Data Handling Rules on Platforms Ver 1.0 (Abbreviation: Rule Implementation Guidance)” was announced in March of this year through the consideration of the “Sub-Working Group for Implementation of Data Handling Rules on Platforms”, and “Direction of Content Strategy in the Digital Age and Organizing Challenges” was announced in April of this year through the consideration of “Content Strategy Consideration Task Force in the Digital Age”.

In addition, “Direction of Policies for Strengthen an IP Ecosystem Centered on Startups and Universities” was compiled and announced in April of this year through the “The IP Ecosystem Form Meetings Centered on Startups and Universities”.

“Content Strategy Working Group” for the purpose of intensive discussions on building a Content Creation Ecosystem that responds to the digital age and “Create Japan Working Group” for the purpose of intensive discussions on rebuilding the Cool Japan strategy for post-COVID were established and discussions were also proceeded with vigorously promoting the discussions toward formulation of the “Intellectual Property Strategic Program 2022” after January 2022 by the “Vision Committee” established under the Intellectual Property Strategy Headquarters.

“Intellectual Property Strategic Plan 2020” has summarized based on the results of the above studies and discussions.

In order to recover the Japanese economy damaged by COVID-19 with responding to the competition of digitalization and green, it is necessary to maximize the power of innovation and investment and utilization of IP and intangible assets in enterprises is an important key.

In the beginning of this plan, we organize the basic recognition of the current situation in Japan that should be taken into account in case of considering IP strategies at the beginning. In the future, policy issues and measures that are important in promoting IP strategies will be summarized into eight priority policies as “Enhancing the IP ecosystem of startups and universities”, “Strengthening the investment and utilization promotion mechanism of IP and intangible assets”, “Promoting the strategic use of standards”, “Improving the data distribution and utilizing environment for the realization of a digital society”, “Content strategies in the digital age”, “Enhancing the IP utilization in SMEs, regional (areas), and agricultural sciences”, “Strengthening systems, operations, and human resource foundations that support the IP utilization”, and “Restarting the Cool Japan in anticipation of post-COVID”.

Steady implementation of policies based on this plan is required in the future for aiming to transform into an economic society where new players including individuals with a passion for new idea creation and innovation in Japan can fully utilize society's IP.

II. Basic Understanding

1. Japan's innovation slump

In the midst of the growing expansion of importance for responding to the global agenda including the impact of COVID-19 and climate change, the world is entering a race for economic and social transformation based on digitalization and green. Under these circumstances, in order for Japan to achieve sustainable economic growth, it is more important than ever to build an ecosystem that innovation can be created autonomously and continuously.

In the “Intellectual Property Strategic Plan 2021” announced in July last year, referring to the 2020 edition of the Global Innovation Index (GII) published annually by the World Intellectual Property Organization (WIPO), we strongly pointed out that Japan's innovation function was not fully functioning. Looking at the most recent GII ranking for 2021, Japan's ranking has risen to 13th from 16th the previous year, but it remains low compared to the rankings of the world's major countries (3rd: the United States, 4th: the United Kingdom, 5th: South Korea, 10th: Germany, 11th: France, and 12th: China), and Japan is unable to breakaway from the “innovation backwardness” category.

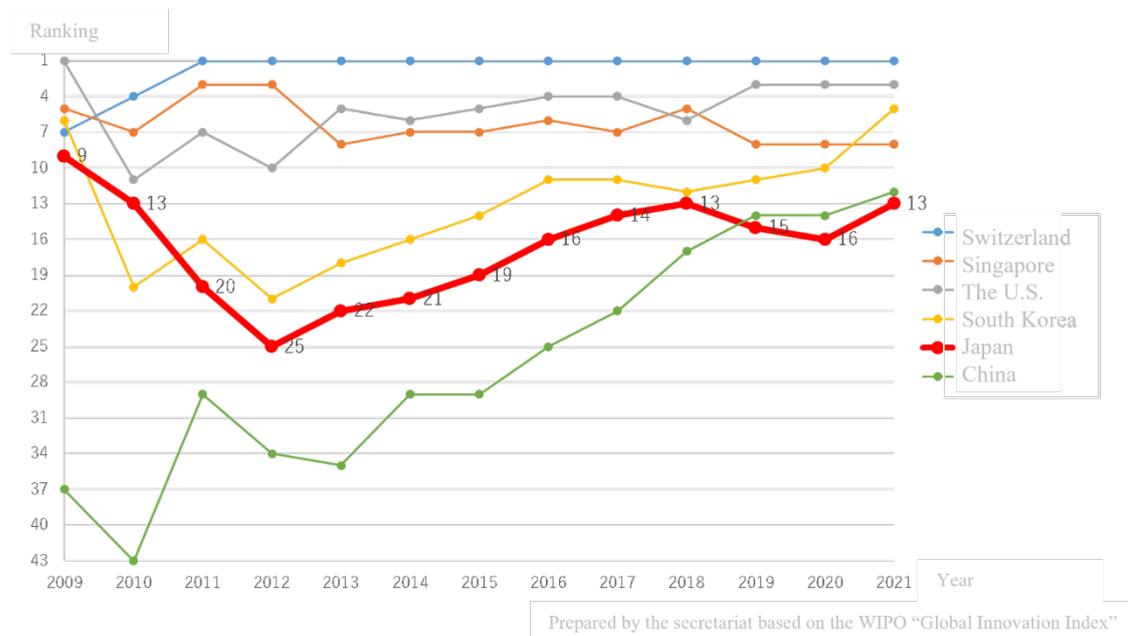


Figure 1: Annual changes in the Global Innovation Index (GII) ranking of each country

Looking at the breakdown of GII rankings, it is noticeable that Japan ranks at 82nd in the item “Ease of starting a business”, and it stands out as a low result. It is now common knowledge around the world that startups should play a leading role in innovation, and it is imperative to create an environment that facilitates startups' activities for stimulating innovation in Japan. However, Japan's activity environment is not conducive for startups.

In regard to the fact that there are many startups among the top enterprises in the market capitalization ranking in the United States, there are few startups in the ranking in Japan, and it indicates that the enterprise metabolism that is essential for stimulating innovation has not progressed for many years.

Unless Japan builds the ecosystem that allows startups to take off and stimulate innovation in Japan-wide, Japan may continue down the path of being an “innovation underdeveloped country”. During the growing importance of startups in the deep tech and biomedical fields in recent years, the IP strategy is an extremely important factor in the success or failure of startup’s businesses. In terms of the IP strategy, there is an urgent need to take all possible policies to expand the areas where startups are active and contribute to the revitalization of innovation in Japan.

2. Changes in the global competitive environment – Global trends compelling changes in the IP strategy -

In recent years, the rapid progress of digitalization and green has brought changes in the global competitive environment that are forcing major changes in the way of Japan's IP.

(1) Innovation and speed competition

Among the changes in the global competitive environment, the increasing importance of speed is having the greatest impact on how IP strategies should be. The rapid progress of digitalization and green technology has brought the "innovation speed competition" to determine "how to flexibly and speedily implement technology globally in society”. Under these circumstances, in order for Japan to survive in the fierce global competition, not only existing companies that have been the main players of innovation so far, but also a wider range of players including startups must participate in innovation and move toward the social implementation of technology and improve an environment that businesses can be developed efficiently and speedily.

(2) Fierce technological hegemony, competition for international cooperation, and the growing importance of economic security

The recent progress of digitalization has led to a reorganization of configuration functions for establishing products and services to the inter-sectional function “layer” that transcends existing industry concepts from the conventional pyramidal value chain structure system by product, service, enterprise and industry, and revolutionizes the industrial structure for a network system that achieves value delivery by connecting this freely. This is transforming the industrial structure into a network system that achieves value provision through free connectivity. Meanwhile, each company needs to take an initiative in participating in architecture construction activities for developing the networking in favor of the self and demanding the profitable area to proliferate by following an open and close

strategy, defining areas clearly to monetize with differentiating factors backed with the IP, and positioning the functional "layer" to the area where belongs in the architecture.

In this new industrial structure, it is difficult for a single company to capture the global market on its own so that it is becoming increasingly important to find right business partners both domestically and internationally, establish alliances among multiple cross-border business entities, and promote the strategic use of standards.

In recent years, as geopolitical tensions have increased, the science, technology and innovation have become central to the intensifying struggle for supremacy among nations. In order to secure Japan's autonomy and achieve superiority, the government will promote concrete policies as a policy for strengthening key industries in accordance with enhancing efforts to preserve and develop important technologies. During this year's ordinary session of the Diet, the "Law on Promotion of Security by Taking Economic Measures in an Integrated Manner" (hereinafter referred to as the "Economic Security Promotion Act") was passed for promoting these economic security policies integrally.

In February of this year, prior to the enactment of the "Economic Security Promotion Act", in the "Expert Council on Economic Security Legislation" compiled a "Proposal on Economic Security Legislation". The "Proposal on Economic Security Legislation" states that a framework that can promote the relevant ministries and agencies to accompany and support the R&D of advanced important technologies and promoting the appropriate utilization of their results is necessary to promote the development of such technologies in a way comparable to that of other countries. The "Economic Security Promotion Act" states that a council needs to be established to promote public-private partnerships. One of the functions of this council is to provide institutional cooperation for the social implementation of R&D results. In the proposal, one of the functions that this council can fulfill is also to consider international standardization as necessary.

(3) Shifting the technological paradigm in the digital space

Technological trends in the digital space are also advancing vertiginously. According to the advancement of blockchain technology, the interest of decentralized Internet environment known as Web 3.0 is growing rapidly in worldwide for a trend to create a new digital space characterized by a governance structure that does not concentrate power on specific players, unlike the Internet space dominated by giant platformers. Non-substitutable tokens (NFTs) may have the potential to increase its value by being issued in association with Japan's abundant content, and are expected to be a catalyst for the expansion of the digital economic sphere in the Web 3.0 age through their use in the metaverse space.

This shift of a technological paradigm in the digital space may have a considerable impact on the IP property strategies. For example, if NFT are issued relative to contents, the relationship with the rights holder for the contents could be problematic. The NFT technology may also lead to the realization of a system that allows content creators to receive a certain amount of royalties during the secondary distribution of contents. Furthermore, how to protect design and content rights in digital spaces such as the metaverse could become a problem in the future.

In Japan, there is an urgent need to quickly consider how the IP ecosystem should be in response to the trend of Web 3.0 and lead the formation of global rules.

(4) Growing interest in governance of new IP "data"

The global battle for leadership over the formation of rules for the data utilization is becoming more and more intense. Especially in Europe, in order to counteract the data enclosure by GAFA, moves are rapidly underway in both the formation of rules for data handling and the formation of data linkage infrastructures.

Regarding the data strategy on non-personal data in Europe, a soft law approach has been taken as imposing data handling rules for operators of data distribution infrastructure. The maintenance of European cloud and data infrastructure concept GAIA-X under such a policy is also to promote data distribution while controlling access in accordance with data disclosure condition for using the IDS connectors provided by IDSA (International Data Space Alliance).

On the other hand, in the draft European Data Law published by the European Commission in February 2022, in order to prevent data hoarding by data holders, it includes a requirement to take measures that the data held by the user or authorized third can be accessed and used for IoT business operators as data holders

Based on these trends in other countries, it is necessary to continue considering the way of data governance in Japan.

3. Japan's IP ecosystem that fails to sufficiently contribute for innovation

Needless to say, the IP ecosystem must contribute to innovation, but there are many various doubts whether the current Japanese IP ecosystem can sufficiently contribute to the innovation creation.

(1) Lack of investment in the IP and intangible assets needed for future growth

Despite the increasing importance of IP and intangible assets as a source of competitiveness, Japanese enterprises still tend to emphasize in tangible asset investment so that Japan's investment and utilization of the IP property and intangible assets pales in comparison to other countries. In particular, Japanese R&D investment has not fully recovered from the decline of Lehman Shock.

In addition to the tendency to be recognized as a "cost" in management, the investment and utilization of the IP and intangible assets is difficult to see the cost-effectiveness in the short term, while many Japanese enterprises tend to be overly obsessed with making a profit, it is also pointed out that this is one of the reasons why the investment in the IP and intangible assets has not progressed in Japan by leading to avoid investing in the IP and intangible assets that is difficult to expect a return on investment by going into the red.

As a result of this failure to build a business model that differentiates its products and services through investment and utilization of the IP and intangible assets, it has been also pointed out that the markup rate of Japanese enterprises is lower than the other countries so that a vicious cycle is emerged that discourages investment in the new IP and intangible assets.

It is important that Japanese enterprises need to break out of this vicious cycle and build a business model for the pricing power of the investment and utilization of the IP and intangible assets and linking to increase profit and aiming for a virtuous cycle that promotes further investment in the IP and intangible assets necessary in future growth.

(2) The IP of Japanese enterprises that is not fully utilized

The IP including patents created and held by enterprises is the result of technology developments that enterprises have input and executed by investing management recourse. Enterprises are required to maintain and expand their own businesses by utilizing the results effectively. In addition, it is not a favorable situation from the viewpoint of stimulating innovation in the entire society if the created IP is not used by anyone.

It is essential to fully utilize the accumulated IP, implement it in society in an agile and speedy manner, and link it to the revitalization of innovation for Japan to survive in global competition in the future.

However, there are data indicating that many enterprises are not necessarily making effective utilization of their own IP. For example, according to the "IP Activity Survey" compiled by the Patent Office, the ratio of unutilized cases (in FY2020) to the number of domestic patent rights ownership is approximately 50% (in which approximately 33% are for defense purposes). If an environment is promoted that makes it easier for startups to use the unused IP for commercialization, it can be expected to have a positive effect on the growth of the Japanese economy.

In some industries, the cross-licensing of patent rights is widely utilized, and while this is an effective method of avoiding IP disputes within the same industry, it has pointed out that the cross-licensing of IP does not necessarily lead to Japan's innovation competitiveness.

Therefore, it is important to strengthen the IP governance in a way that encourages enterprises and new players to fully utilize of the accumulated IP for innovation.

Furthermore, there are high expectations for roles of patent attorneys, who support enterprises in obtaining IP rights and its utilization, should play a role in the creation and utilization of the IP that contributes to enterprise's added value creation. It is urgent to promote the future shifting into the proactive IP strategy proposal operations that goes beyond the substitutional filing.

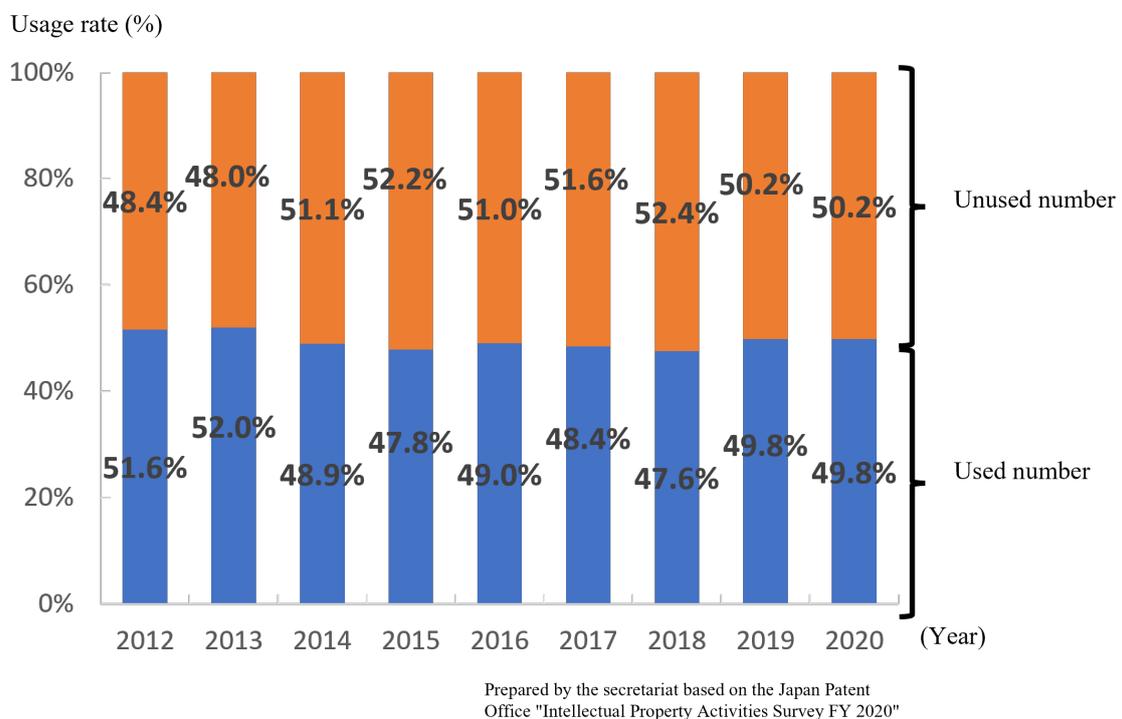


Figure 2: Usage situation of domestic patent rights

(3) The IP management of self-contained enterprise that hinders an industrial dynamism

As the pace of technological progress accelerates, companies cannot implement technology in society in a flexible and speedy manner with only their own internal R&D and management resources. For this reason, the importance of an open innovation stance has been increasing in order to utilize other outside management resources actively.

Under this circumstance, regarding the ideal ways of corporate IP managements, the change is required to open and flexible managements from the IP managements based on the self-sufficient policies that the entire process for the creation to utilization is completed within the enterprise to the acquiring the IP from other enterprises to supplement the necessary IP, or license or carve out the necessary IP to external parties depending on the type of alliance with other enterprises.

However, many Japanese enterprises continue to conduct self-contained IP managements based on the principle of self-sufficiency, it has been pointed out that this is hindering the development of new open innovation and business restructuring through business divestitures, and some say that it is one of the reasons why the existing industrial structure cannot be broken down.

It is imperative to encourage these companies to improve their self-contained IP managements for increasing the dynamism of Japan's industrial structure and stimulate innovation in the future.

(4) Problems in the IP commercialization created at universities

Universities play an extremely important role in building an innovation ecosystem centered on startups. Especially in the deep-tech and biomedical fields, collaboration with university researchers is particularly important for startup commercialization.

In recent years, the innovation ecosystem consisting of startups originating from The University of Tokyo and their support organizations has been forming in Japan, but compared to other countries, Japan has yet to realize the mature innovation ecosystem that startups can commercialize the technology seeds created at universities.

Several challenges have been identified in linking with the IP created at universities to commercialization through startups. First, there are challenges in university IP managements. Many universities do not have sufficient systems in place to properly managing the IP as the result of inventions by university researchers and are not able to fully commercialize the results. In addition, there is sluggish at the entrance of the IP creation processes at universities because it is unable to cover the cost of the international applications required for the global commercialization of university inventions and give up on obtaining rights as.

Second, there are issues related to the utilization of joint research results. In Japan, there are many cases where joint research results between universities and companies are shared patents, but it has been pointed out that many shared patents are not fully utilized by enterprises. While other countries are working to resolve the difficulty of utilizing shared patents, the reality in Japan is that many joint research results are still stored dead as shared patents at many universities.

There is an urgent need to create an environment that joint research results of universities can be fully utilized in startups.

4. Future IP strategy directions

(1) Transition to the IP ecosystem that contributes to innovation

In response to these changes in the global competitive environment, it is necessary to build the IP ecosystem that truly contributes to innovation. Above all, there is an urgent need to build the IP ecosystem that responds to the diversification of entities responsible for innovation. Whereas in the United States, the role of driving economic growth is shifting from innovation centered on the central research laboratories of large enterprises to innovation centered on universities and startups as symbolized by Silicon Valley and Boston, there is still a strong tendency to rely on large companies for innovation, and the innovation ecosystem centered on startups is far from driving Japan's economic growth in Japan.

In order for Japan to enhance its international competitiveness while responding to changes in the global competitive environment, it is essential to create an environment that a wide range of players including startups can access the technologies and the IP accumulated throughout society and have opportunities to utilize them for commercialization. This type of innovation ecosystem that is supported by various actors could be called the "democratization of innovation.

The realization of these challenges will require a shift in the attitude of large enterprises toward collaboration with startups. Some large companies are clearly adopting a startup-first stance and changes can be seen. In order to spread this stance throughout, it is necessary to encourage enterprises to change their behavior through corporate governance.

The biggest challenge for Japan's IP strategy is to promptly establish the IP ecosystem in Japan that enables a wide range of entities including start-ups, individuals, and SMEs to participate in innovation and seize opportunities to expand their businesses while collaborating with each other through open innovation.

(2) The content and Cool Japan strategy for digitalization

In the advent of the Web 3.0 age, the content business has reached a new turning point that the technology development contributed to the development for content industry of metaverse and NFT is accelerating with expanding the possibility of new forms of content distribution. It is necessary to appropriately understand these trends and strengthen the competitiveness of the media content industry. It is also necessary to revitalize a creator-led content ecosystem while encouraging people to exercise

their creativity in the “age of all 100 million creators” that everyone creates, distributes, and uses contents.

It is also important to improve the environment for the safe use and dissemination of content that has become a major communication tool for people and there is an urgent need to establish a system that enables rights processing simply and promptly to a vast and diverse range of copyrighted works in responds to the speed of the digital age.

On the other hand, CJ-related sectors such as food and beverage, tourism, culture and arts, events and entertainment have been hit hard by the prolonged COVID-19, and some of them are in jeopardy of their survival. In this context, the Tokyo 2020 Olympic Games and Tokyo Paralympic Games, held last year, provided an opportunity for Japanese people to rediscover the attractiveness of Japan according to the beaming of Japanese food and lifestyle widely all over the world through SNS of Olympians and affiliates.

In recent years, anime, manga, games, and live videos from Japan have gained fans around the world and become the source of Japan's soft power. New possibilities such as virtual world tours by artists have been expanding as well so that it is necessary to utilize of digital technology for promoting CJ's efforts.

III. The Eight Priority Policies of the IP strategy

1. Enhancing the IP ecosystem of startups and universities¹

(Current situation and challenges)

In order for the Japanese economy to achieve sustainable growth in the future, it is essential to build the ecosystem that startups can implement the technology flexibly and speedily in society and play leading roles in innovation.

As for the IT and AI startups that have formed the core area of venture investment, acquisition of patents was not necessarily important for business growth with utilizing the GitHub and open sources and competing of social implementation speed in business models. Therefore, during the growing importance of innovation in the deep tech and biomedical fields in recent years, the IP strategy including patents are decisive factor that determines the success or failure of businesses for startups responsible for innovation functions in these fields and the recognition of the importance of the IP strategy for startups has increased remarkably.

In addition, it is important for startups in the deep tech and biomedical fields to incorporate cutting-edge research results from universities and the role of universities in the startup ecosystem is increasing. For this reason, there is an urgent need to create an environment that startups can flexibly and speedily commercialize the technologies and ideas created at universities.

It is also essential to develop an infrastructure that will enable commercialization as efficiently as possible by utilizing of excellent IP accumulated in large enterprises, universities, and research institutions for startups. To this end, it is important to promote the "visualization" of unutilized IP buried in large enterprises, universities, and research institutes.

¹ Startups generally refer to companies that have been working on innovative businesses soon after their founding, but the gist of the discussion in this chapter also applies to SMEs that are promoting innovative initiatives.

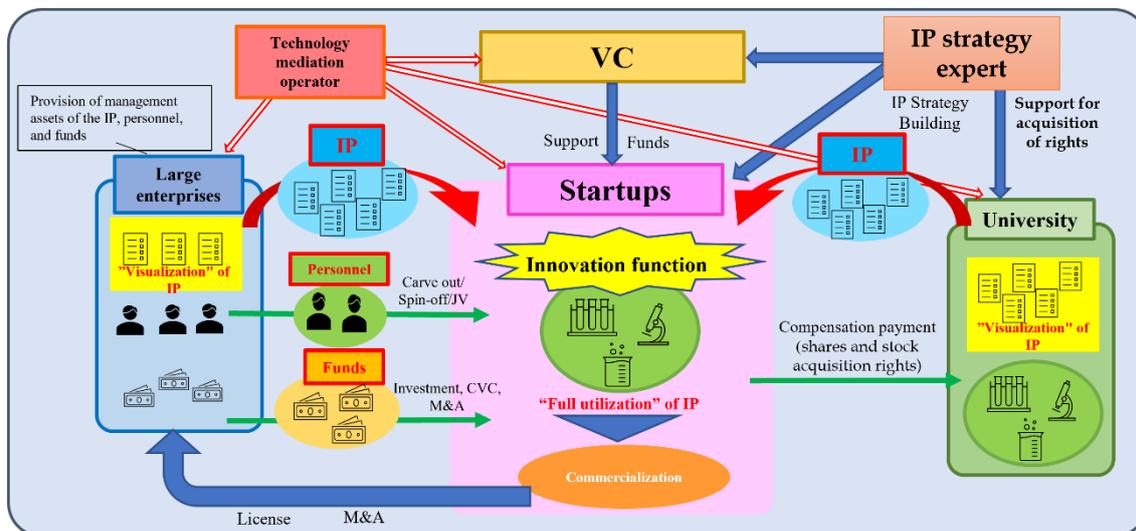


Figure 3: Image of the IP ecosystem for startups

As the government, toward to the IP utilization support for startups, we transmit information utilizing the IP portal site, “IP BASE”, at the Patent Office and provide a place to connect people involved in the ecosystem for startups and those involved in the IP. We also just implemented the IP Acceleration Program (IPAS) that dispatches a team of business experts and IP experts with experiences in supporting startups so that the understanding of startup’s IP strategy is progressing.

In December 2021, the Small and Medium Enterprise Agency, Patent Office, the National Center for Industrial Property Information and Training (INPIT) formulated and published the “Intellectual Property Utilization Action Plan for SMEs and Startups” including management strategy planning support by utilizing the IP for building an environment that SMEs can leverage their strengths and respond to business environment changes. Based on the direction of this Action Plan, we plan to strengthen cooperation between INPIT and support organizations including the Japan Chamber of Commerce and Industry and promote efforts for startup’s IP utilization and protection.

However, there are still various issues to be pointed out in further strengthening of the IP ecosystem centered on startups and universities.

At the early stages of a startup, it is difficult to find human resources capable of building intellectual property strategies internally. In case of looking for external human resources to support the IP strategy for startups, there is a general shortage of appropriate human resources according to the startup field, business form, and business phase. It has been pointed out that it is difficult to find appropriate human resources and there is a need to strengthen the system and functions to provide startups with comprehensive support for the IP from the early stages of their development.

There are not many venture capitals (VC) have the capability to fully support startups’ IP strategy. Although some VC hire human resources to support the IP strategy and provide hands-on support,

many VC do not have such human resources and the network of human resources supporting the IP strategy is not yet sufficient.

The serious lack of funding and weak systems for the IP acquisition and management are also noted in some universities. It has been indicated that there is a wide variation of the IP management capacity at universities. It has also pointed out that there are cases that the excellent technology created by university's R&D is unable to sufficiently file in overseas, and the opportunity of global business development are being crushed prematurely. In many cases, it is also pointed out that the patent granted at the university has not secured the scope of rights necessary for actual business execution, and it becomes difficult to lead to the commercialization. Furthermore, when transferring the IP created at universities to startups, some universities impose restrictions on receiving shares and stock acquisition rights from the startup as the IP compensation. It is also noted that some universities insist on accepting payments in cash.

There are challenges regarding the attitude of large enterprises toward the open innovation with startups. As competition for innovation speed increases, large enterprises are being challenged to provide their management assets to startups and have open innovation capabilities that maximize their innovation capabilities. When enterprises promote the open innovation in collaboration with startups, they need to be aware that making startups successful will lead to their own growth and the implementation of shared social value. However, carve-outs and spin-offs are not as common in Japan as in other countries, and alliances with startups through corporate venture capital (CVC) are not fully functional. Even after investing in and acquiring startups, there are not a few cases that the failure of the PMI: Post Merger Integration to align with the existing interests and enterprise culture within the large enterprise has resulted in the loss of the value created by startups. Unfair transactions in collaboration between large enterprises and startups are still pointed out.

It is necessary to urgently develop solutions based on these challenges and proceed with consideration in the following policies for should be given to the realization of the me listed below in order to build the IP ecosystem centered on startups and universities in Japan and maintain the environment that the sustainable innovation is created. These policies aim to raise the overall level of startups and expand their base by creating the environment that facilitates startups' utilization of the IP. It is expected that this will lead to increase in the creation number of unicorn.

Based on the recognition of these challenges, the purpose of this study is to examine policies regarding related challenges from a broad perspective, it has been discussed the challenges at the “Study Group on the IP Ecosystem centered on Startups and Universities” and the “Policy Direction for Strengthen the IP Ecosystem Centered on Startups and Universities” has compiled and published in April 2022.

(1) Improving an environment that facilitates startup’s utilization of shares and stock acquisition rights as compensation for the IP

< Restrictions on acquisition and holding of shares and stock acquisition rights by universities >

When startups receive the IP transferred from universities and commercialize it, it is effective to utilize shares and stock acquisition rights as compensation. The utilization of shares and stock acquisition rights has the advantage for startups to keep as much cash on hand as possible, while universities also have the advantage if startups exit through an IPO or M&A in the future, it is possible to obtain a large amount of compensation in comparison to receiving compensation in cash initially. Furthermore, universities will have more incentive to provide generous support for the successful commercialization of startups even after the IP has been transferred.

In the notification of the Ministry of Education Culture, Sports, Science and Technology in 2017 toward an environment the universities could easily acquire startup shares and stock acquisition rights as the IP compensation, National university corporations were able to acquire shares and stock acquisition rights of university-launched venture enterprises that were difficult to pay compensation in cash. However, the acquired shares were required to be sold promptly as soon as they became redeemable.

Furthermore, in the revision of the “Science and Technology Innovation Activity Law” enacted in December 2018 and enforced in January 2019, National universities are able to acquire and hold the shares and stock acquisition rights of corporate ventures in case of “When deemed particularly necessary in consideration of financial resources and other circumstances, the support is provided free of charge and/or the compensation of its support can be set lower than the market price”. It was clearly stated that " No retention period is specified" in the “Guidelines for Acquisition and Holding of Shares and Stock Acquisition Rights with supports for outcome utilizing businesses by R&D corporations and national university corporations, etc.”.

Nevertheless, despite this series of measures, there were some opinions that it was unclear at the university level as to the scope of the acquisition of shares and stock acquisition rights (within the scope of university (corporation) ventures). The requirements of "financial resources and other circumstances" were also strictly interpreted. For example, having received investment from a large company was regarded as having financial resources and there were cases that payment was required in cash. The environment for startups to fully utilize the shares and stock acquisition rights was not yet in place.

For this reason, various restrictions need to be eliminated to allow national universities to acquire shares and stock acquisition rights of startups flexibly as the compensation for transferring of the IP to startups and sell them at the appropriate time. It is necessary to create an environment that facilitates to utilize startups' shares and stock acquisition rights as IP compensation. It is required to review the relevant provisions of the “Science and Technology Innovation Activity Law”. At the same time, when a university transfers the IP to startups for encouraging active utilization of shares and stock acquisition rights as a method of receiving compensation, it is necessary to clarify how IP compensation should be obtained for IP transfers in the “University Intellectual Property Governance Guidelines (provisional name)”.

<Problems with the issuance limits of stock acquisition rights>

When startups try to utilize stock acquisition rights as compensation for the IP, the problem of restrictions on the issuance limits of stock acquisition rights has been pointed out. In Japan, when VC invest in startups, there is a tendency to stipulate an upper limit of 10-15% for the issuance limits of stock acquisition rights (stock options) to attract human resources as an exception of the Anti-Dilution Provisions in the shareholder agreements and articles of incorporation.

On the other hand, regarding shares and stock acquisition rights (warrants) issued as compensation for technology transfer in the United States, the practice of treating stock and stock acquisition rights (stock options) as a separate category has been adopted for the acquisition of human resources and it is reported that shares and stock acquisition rights exceeding 10-15% are often issued.

In case of issuing stock acquisition rights (warrants) for the IP transfer, it is only necessary to evaluate the value of the IP according to individual circumstances and issue stock acquisition rights (warrants) equivalent to that value. Setting a certain limit on the issuance of stock acquisition rights including compensation for the IP transfer is thought that startups will lose the opportunity to receive the IP transfer flexibly from universities.

For this purpose, regarding the startups for deep tech and biomedical fields originated from the technology, the stock acquisition rights (stock options) for acquiring human resources and stock acquisition rights (warrants) for the IP transfer should be considered separately. Regarding the issuance of stock acquisition rights (warrants) for intellectual property transfer in the exceptions of the Anti-Dilution Provisions on shareholder agreements and articles of incorporation, it should be separated from the issuance limits of stock acquisition rights (stock options) for acquiring human resources and established the provisions that can be determined individually through the valuation of the individual IP.

However, if the Board of Directors is delegated the authority to determine the subscription requirements of stock acquisition rights to shares, VC may be concerned that startups will issue stock acquisition rights (warrants) that exceed the value of the transferred IP. It is conceivable to stipulate as “stock acquisition rights (warrants) for the IP transfer with the consent of all directors” on the Articles of Incorporate in the exceptions of the Anti-Dilution Provisions for reaching a veto power of the directors dispatched to startups by VC.

As for the concept of valuation of stock acquisition rights (warrants) as compensation for the IP transfer and the relationship with the issuance limits of stock acquisition rights (stock options), stock acquisition rights (warrants) issuance authority and its governance, and matters that universities should be recognized, this should lead to the facilitation of licensing negotiations with startups for raising the level of licensing capacity at universities by clarifying in the "University Intellectual Property Governance Guidelines (provisional name)".

(Direction of measures)

- In order to create an environment that facilitates the acquisition of startups' shares and stock acquisition rights by national university corporations and R&D corporations as IP compensation, we will consider including reviewing related regulations and reach a conclusion by the end of 2022 for the abolition of various restrictions such as financial requirements.

(Short-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry)

- Based on supporting university funds for the World-leading Innovative Research University and importance of valuation and IP of research results in the "Comprehensive Promotion Package for Research Universities with Regional Core and Distinctive Characteristics", in order to lead to commercialization created IP at universities for startups, the "University Intellectual Property Governance Guidelines (tentative name)" including acquisition of appropriate compensation for stock acquisition rights related to intellectual property transfer to startups, patent application process management for obtaining high-quality rights for commercialization, rules for handling joint research results with enterprises will be formulated by the end of 2022, and a mechanism to disseminate the guidelines among universities nationwide will be studied.

(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry)

(2) Supporting for acquisition of rights in anticipation of commercialization at universities

< Drastic enhancement of foreign application support >

It is essential to acquire appropriate rights for global business developments for connecting the research results created at universities to social implementation through commercialization at startups. However, in reality, it has been pointed out that even though excellent technologies have been developed at universities, they have not led to proper acquisition of rights and crushed the opportunity of commercialization.

Foreign applications require a large amount of expenses for filing and maintenance, translation, local representation, and it is often difficult for universities to secure funds for foreign applications. In light of this situation, the Japan Science and Technology Agency (JST) provides partial support for the

costs of PCT international applications and patent applications filed by universities as applicants in various countries. There are cases without receiving support abandoned of foreign applications.

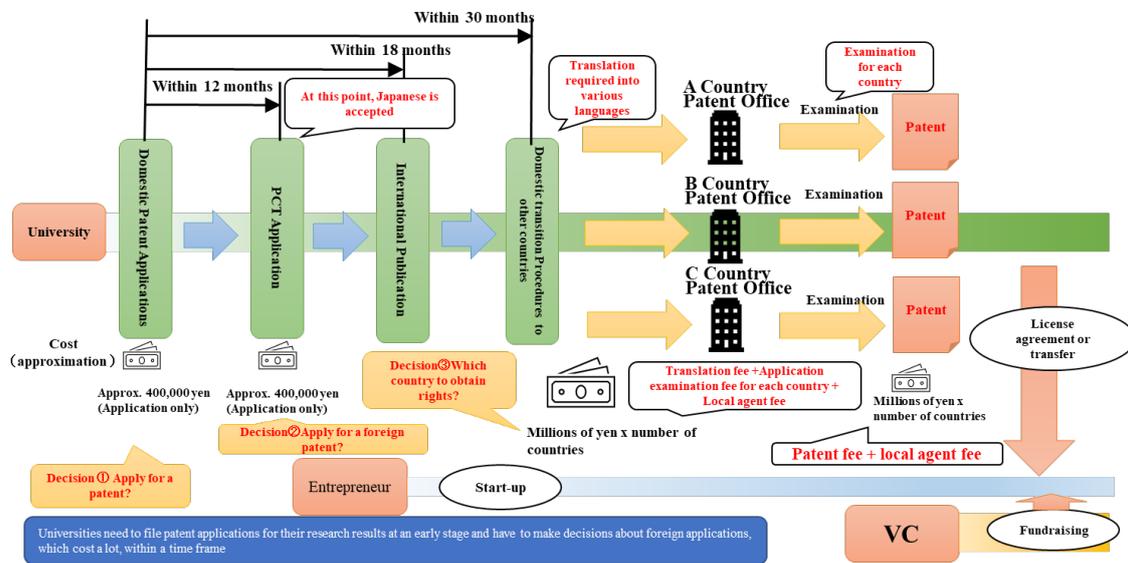


Figure 4: PCT application process for startup commercialization

According to the published ranking of the number of PCT international applications for world university (2020) (Patent Office "Patent Administration Annual Report 2021"), in the top 30 including 9 U.S., 12 Chinese, and 4 Korean universities, there are only 2 Japanese universities are in the top 30 and it makes Japanese universities behind in the global IP strategy.

Ranking	University	Number
1	University of California (The U.S.)	559
2	Massachusetts Institute of Technology (The U.S.)	269
3	Shenzhen University (China)	252
4	Tsinghua University (China)	231
5	Zhejiang University (China)	209
6	University of Texas System (The U.S.)	184
7	Dalian University of Technology (China)	159
8	South China University of Technology (China)	157
9	Stanford University (The U.S.)	154
10	The University of Tokyo	149
11	China University of Mining & Technology (China)	148
12	Seoul National University (South Korea)	146
13	Northeastern University (China)	132
14	Jiangnan University (China)	131
15	Osaka University	128
16	Southeast University (China)	125
17	Hanyang University (South Korea)	124
18	John Hopkins University (The U.S.)	121
19	Korea University (South Korea)	118
19	Harvard University (The U.S.)	118
21	Shandong University of Science and Technology (China)	111
22	Yonsei University (South Korea)	108
22	Northwestern University (The U.S.)	108
24	Columbia University in the City of New York (The U.S.)	104
24	Tianjin University (China)	104
26	King Abdullah University of Science and Technology (Saudi Arabia)	97
27	National University of Singapore	96
27	University of Michigan (The U.S.)	96
29	University of Oxford (The U.K.)	93
30	Peking University (China)	90

Figure 5: Domestic and international universities ranked in the top 30 in the published number of PCT international applications (2020)

When startups fail to acquire the global IP rights for superior technologies created by universities, even if startups try to commercialize based on the technology, it is unable to collect funds from VC and the opportunity for commercialization in overseas will be crushed, and the university's research results become a dead storage without being utilized in the world.

It is urgent to consider a new scheme to drastically expand the supports for foreign applications of universities for avoiding these situations. As a result of the strengthening of foreign applications, considering that many startups are created by the license, many shares and stock acquisition rights (warrants) are handed over and accumulated to universities in return and many of them generate large economic value as a result of business success, a portion of the share and stock acquisition rights (warrants) that universities were received as compensation for the patent license with foreign application supports are transferred and accumulated at support organizations as a counter-payment for foreign application support, it may lead to sustainable development of medium- to long-term support measures for allocating its investment profit to foreign application support funding.

<Acquisition of strong rights for commercialization>

Regarding research results by researchers at universities, it is necessary to file a patent application at an early stage before publishing the paper so that it is difficult to prepare a high-quality statement for commercialization. Regarding the quality and usability of patents filed at universities from enterprises, the scope of rights of individual patents and entire portfolio is insufficient to cover compared to corporate patents, and it may not support businesses or products adequately. In some cases, peripheral patents necessary for commercialization are suppressed by foreign companies and it hinders the execution of commercialization by insufficient patenting at universities.

It is necessary to establish process management for building a high-quality patent portfolio with commercialization in mind from the stage of applying for patents regarding university's research results while involving startups that will carry out future businesses. For example, at Osaka University, they are working with companies in the early stages of the project after applying for a patent on its own before the publication of a paper. They find startups and other enterprises before the overseas application and develop the IP strategy for commercialization together with enterprises.

It is necessary to organize how process management should be in order to secure high-quality rights acquisition in anticipation for commercialization in the "University Intellectual Property Governance Guidelines (provisional name)".

<Enhancement of TLO functions>

The IP management at universities is handled by approved Technology Licensing Organizations (hereinafter referred to as "TLO") based on industry university collaboration and the IP departments established at universities, or "Promotion to Transfer the Research Results of Technology at Universities to Private Businesses Act". When some TLO have shown high performance in transferring the IP created at universities to startups and linked them to commercialization, some other TLO are not performing as well as expected. As for the IP income at Japanese universities and TLO, while the IP income is on the rise at the top-ranked universities, there is no growth in the IP income at other universities. It is required to provide the IP strategy supports from the early stages of research in order to connect university research results to the IP creation for commercialization of startups. Many TLO are in a situation with insufficient supports.

Behind this background, it is shown that there is a disparity in the IP management functions of TLO. Some TLOs are working to commercialize the IP created at universities in startups through an aggressive marketing and a virtuous cycle is being formed that will lead to commercialization for future startups, but many other universities have not yet established a system to provide adequate support. In some of these universities that have achieved high performance, professional human resources outside of universities with experience in domestic and overseas startup-related businesses are accumulating at TLO, university-related funds and incubation institutions, and support methods and knowledge backed by the experience, philosophy, and skills have been accumulated and developed. Therefore, it is essential to assign and involve professional human resources with experience in startup

support businesses for playing more advanced roles. However, the number of human resources with high-quality experience in this startup support businesses has been limited for some time in Japan and the training and enhancement of the human resources are the keys. The situation is still in its infancy, and it is difficult to say that a sufficient number of human resources have been allocated to TLO.

There is an urgent need to strengthen intellectual property management functions at universities in the future. For example, in accordance with the number of professionals with experience in high-quality startup support businesses both domestic and international, while consolidating or networking the functions of TLO, it is in need of considering policies to spread the function of high performing TLO throughout the country.

In promoting the consolidation of the functions of TLO, for example, it has been pointed out that the consolidation of funds and incubating institutions and the visualization of expertise and specialties fields of TLO may be the key.

On the other hand, it has mentioned that the role played by TLO is important as a bridge to connect the IP created by regional universities to commercialization by local enterprises in the regional IP ecosystem. It is necessary to consider how TLO should contribute to improving the IP management function of universities with giving the consideration to these perspectives. For instance, policies can be considered to reorganize TLO managed by high-quality professionals and TLO requiring their support into a hub-and-spoke model, and to integrate management for ensuring that well-developed IP management functions of TLOs and other organizations reach the local regions.

It is also noted that universities with active industry university collaboration are devising ways to establish positions that is easy to accept specialized support personnel. University's industry university collaboration departments, intellectual property departments, and TLO should consider establishing a system that can accept and treat various specialized support personnel.

At that time, it is important to stipulate the IP management functions of universities by TLO in the "University Intellectual Property Governance Guidelines (provisional name)".

- Encourage university startups to acquire foreign rights necessary for a business implementation by subsidizing the necessary expenses for filing overseas applications for universities, public research institutes, enterprises (limited to those with a low overseas application rate) that plan to commercialize the research results through startups. Consider a new scheme for drastic expansion of university's international patent application support including the possibility of utilizing shares and stock acquisition rights received from startups as compensation for the IP transfer.
(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)
- Strengthen comprehensive support systems and functions related to the IP including the dispatch of the IP experts to universities and startups based on the direction of "Intellectual Property Utilization Action Plan for Universities" and "Intellectual Property Utilization Action Plan for SMEs and Startups" formulated and announced in December 2021 for realization of seamless support from discovering university's seeds to social implementation and promoting the IP utilization of startups. (Short-term, Medium-term) (Ministry of Economy, Trade, and Industry)
- Establish a forum for discussion at industry-academic-government within FY2022 how to handle the IP property in industry-academic collaboration based on the characteristics of the biotechnology field regarding the consideration for the conditioning of research result disclosure on an appropriate timing.
(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)
- Examine the TLO function strengthening including intensification of TLO functions for correcting disparities in the IP management functions of universities and ensuring that high-quality TLO functions permeate in universities nationwide.
(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)
- Based on supporting university funds for the World-leading Innovative Research University and importance of valuation and IP of research results in the "Comprehensive Promotion Package for Research Universities with Regional Core and Distinctive Characteristics", in order to lead to commercialization created IP at universities for startups, the "University Intellectual Property Governance Guidelines (tentative name)" including acquisition of appropriate compensation for stock acquisition rights related to intellectual property transfer to startups, patent application process management for obtaining high-quality rights for commercialization, rules for handling joint research results with enterprises will be formulated by the end of 2022, and a mechanism to disseminate the guidelines among universities nationwide will be studied.
(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry) [Reposted]

(3) Promoting the utilization of joint research results at universities

It is obvious that the valuable results of R&D conducted by universities with their resources should

be widely utilized and linked to social implementation. However, it is indicated that the results of joint research conducted between universities and enterprises have not been fully utilized. In particular, when the results of joint research take a form of shared patents, it is even more difficult to promote for the utilization.

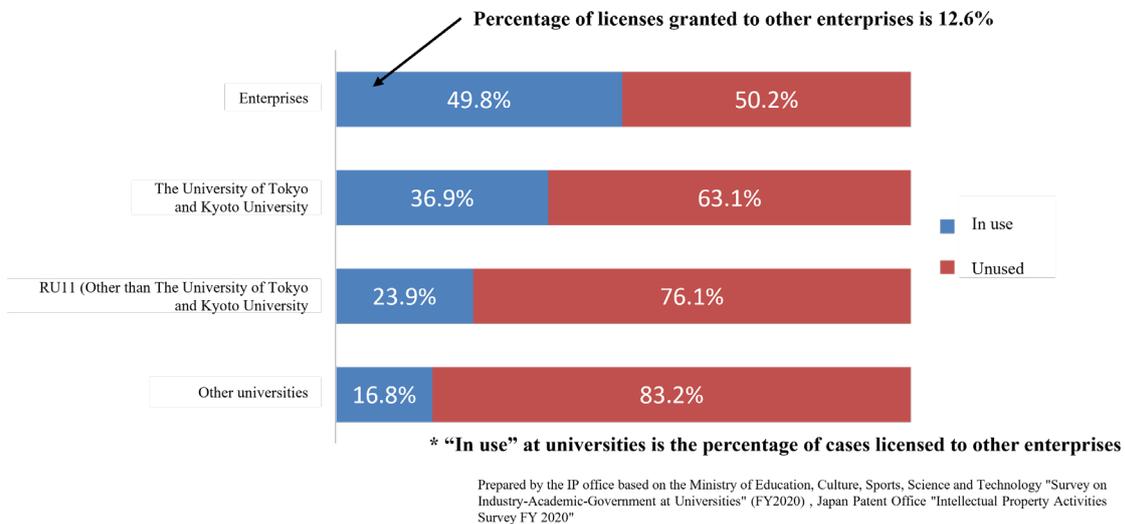


Figure 6: Use of patents owned by universities

In the “Strengthening Joint Research by Industry-Academic-Government Collaboration Guidelines [Supplement]” (in June 2020), the concerns were expressed that the shared patent utilization was exclusively limited to shared enterprises and some part of university’s “knowledge” might not be able to contribute to the new value creation as a result. It was also expressed ideas that it was preferable to have the ownership of the IP assets in an undistributed state and the sole ownership of patents by universities was a critical factor in the establishment and growth of university-launched ventures. In the U.S., where universities play a major role in creating startups and have succeeded in creating many unicorns, it is a fact that most patent applications by universities are filed as a single application and universities hold patents independently.

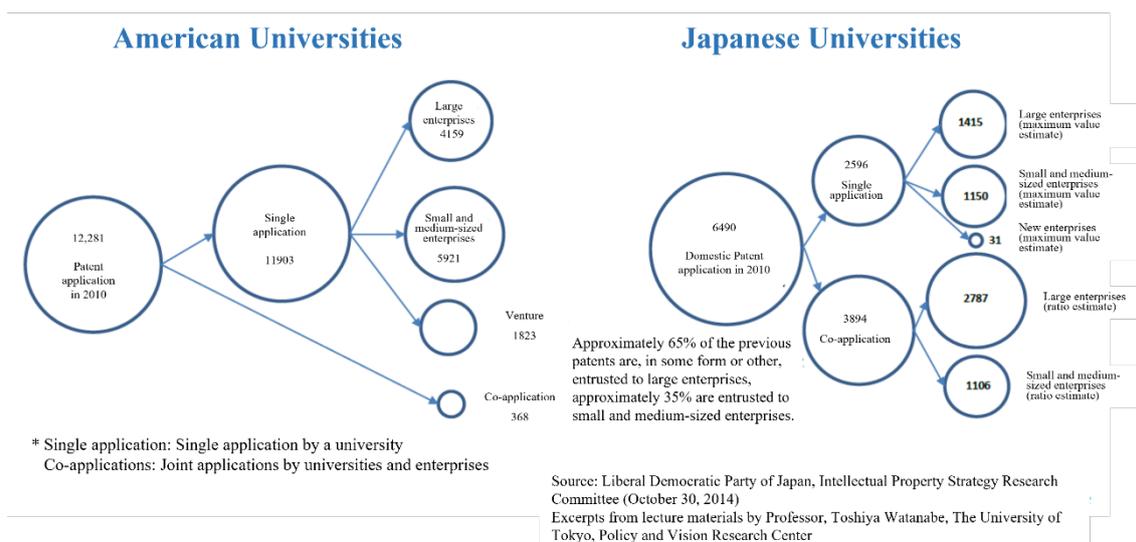


Figure 7: Future of university patents in Japan and the United States

On the other hand, even in cases that the results have to be shared patents based on their contribution to the joint research, it is necessary to improve the environment to promote its use. In regard to shared patents, Article 73 (3) of the Patent Law stipulates that each sharer cannot license a shared patent without obtaining the consent of the other sharer. These handlings are able to change if there is a separate contract between the parties. However, defaults stipulated in Article 73. (3) of the Patent Law are maintained by universities that do not have the strong bargaining power to offer contract terms and conditions to the shared enterprises that would overturn the defaults.

In this point, The University of Tokyo believes that the research results produced by the university must be returned to a society as a part of the university's mission, and the IP rights obtained in the course of joint research should also be returned to a society in a timely manner. In the case of a contract to be executed exclusively by shared enterprises, when shared enterprises do not implement for a certain period of time without justifiable reasons, universities have been conducting joint researches based on a joint research agreement that allows universities to license the research a third party. In the case of The University of Tokyo, even if it is a "defensive patent," the contract is operated based on the corresponds to "when it is not implemented without justifiable reasons."

In order for the results of joint research by universities to be commercialized through startups, these operations need to spread universities nationwide. For this purpose, when joint research results between universities and enterprises are made into shared patents, rules should be established to allow universities to independently license them to third parties if the shared enterprises do not implement for a predetermined period of time without justifiable reasons. Even enterprises that conduct joint research with universities are encouraged to make efforts to visualize the utilization status of its results, there is an urgent need to arrange the environment that research results created using valuable resources at universities will not be a dead storage and lead to commercialization through startups.

It should be noted that these efforts should not inhibit incentives for enterprises to conduct the joint research with universities, etc. It is essential to enhance the university's IP related financial resources for universities do not have to bear the IP related costs excessively on enterprises. In addition to increasing incentives for enterprise's joint research, for instance, when universities license the IP generated through joint research between universities and enterprises to startups, it may also useful to stipulate the details of giving preferential negotiation opportunities to joint research enterprises in case that licensed startups do businesses with new partners.

Interpretation of non-implementation and enterprises conducting joint research with universities are not unduly disadvantaged by being licensed to rival enterprises at one step closer of commercialization based on shared patents, it is conceivable that the " University Intellectual Property Governance Guidelines (provisional name)" will stipulate how good negotiations should be conducted in the contract operations. This is especially important for joint research between universities and SMEs in regional areas and should be taken into consideration after signing the contract. Collaborative policies with various measures for university governance reformation (see below) should also be considered for ensuring the execution of rules indicated in the guideline for good negotiations with universities.

(Direction of measures)

- The rules for the handling of shared patents including legal amendments will be examined and reached a conclusion by the end of 2022 in order to maintain the environment that maximizes the IP utilization owned by universities for commercialization of startups. Regarding share patents between universities and enterprises, universities and enterprises will be able to license to third parties when enterprises do not implement for a certain period of time. The way of supports for universities including enhancing their IP related financial resources will be considered in order to prevent universities from imposing excessive IP related costs on enterprises for universities that are able to utilize the results of joint research easily between universities and enterprises. At the same time, improving the IP management capabilities of universities, collaborating with external organizations that have the management personnel, and designing incentives are considered as well. (Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)
- Based on supporting university funds for the World-leading Innovative Research University and importance of valuation and IP of research results in the "Comprehensive Promotion Package for Research Universities with Regional Core and Distinctive Characteristics", in order to lead to commercialization created IP at universities for startups, the "University Intellectual Property Governance Guidelines (tentative name)" including acquisition of appropriate compensation for stock acquisition rights related to intellectual property transfer to startups, patent application process management for obtaining high-quality rights for commercialization, rules for handling joint research results with enterprises will be formulated by the end of 2022, and a mechanism to disseminate the guidelines among universities nationwide will be studied.

(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry) [Reposted]

(4) Building match ecosystems based on the IP visualization

When startups proceed with commercialization, they may not be able to complete the required IP portfolio for business constructions on their own. It is necessary to promote the visualization of IP accumulated in large enterprises and universities and straighten a mechanism that can effectively match this visualization with startups in order for startups to execute their business as efficiently as possible.

Strengthening collaboration of public and private IT infrastructures that facilitates to search for researchers, research contents, papers, IP rights is in need of searching necessary patents in the portfolio formation, or core technologies and patents required for businesses in order to maintain this kind of environment.

Venture capitalists, technology brokers want to know the possibility of licensing other patents in regard to advising on business strategies for startups. Visualizing the IP with the intention of licensing is effective and incentives that urge right holders to express their licensing intentions need to be consolidated.

(Direction of measures)

- Data sharing of public and private based on information of the IP rights, papers, and research content held by Patent Office and private sector should be studied for strengthening the function of brokering and matching patents related to commercialization toward startups from venture capitals and IP strategy experts. At that time, the modalities of incentives to licensing intentions for startups from enterprises need to be examined for reducing search costs of technology seeds to build the IP portfolio.

(Short-term, Medium-term) (Cabinet Office, Ministry of Economy, Trade, and Industry)

- Regarding the open patent information database that can collectively search open patents of enterprises, universities, research institutes on the internet, the modalities including private sector transfer based on the trends and needs of matching service providers in the private sector need to be examined.

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

(5) Ecosystemization of the IP strategy support services for startups

For startups in the deep tech and biomedical fields, the intellectual property strategy is the key to business success or failure so that it is important to formulate the IP strategy with a view of future business expansion from the initial stage and build strong business models. Therefore, in addition to the difficulty for many startups to have in-house personnel who can develop the IP strategy at an early stage, finding the right external personnel is also difficult.

The specifications of human resources supporting startup's IP strategies vary and are non-uniform. In the early stages of IP strategy supports, "design" the grand design of the IP strategy in synchronization with business model buildings is more important than tactical "implementation" of patent application and acquisition rights. The challenges are pointed out that there are few human resources who can support "design" because skills that support "design" and skills that support "implementation" are different.

Legal perspectives are also required how to protect the IP in contracts for the IP strategy supports, but the legal intellectual property strategy is nothing more than tools so that it is impossible to support the IP strategy only from legal perspectives.

For this reason, human resources with a wide range of specifications that support a wide range of the IP strategy that can meet the various needs for startups (experience in management, business, the IP strategy, new business launches at large enterprises, consultants, patent attorneys, and lawyers) are provided in service markets to support startups and appropriate personnel should be matched to the situations. Specifically, in the "design" phase of the early stages of commercialization, while large enterprises require personnel with experience in management, business, the IP strategy, and new business launches and consultants, in the following of the "implementation" phase, there are opinions that patent attorneys, lawyers, and personnel with experience in the IP departments of enterprises may be suitable.

Though, in Japan, human resources who can support the IP strategy of startups are not provided fully at this moment. Having knowledge of patent application practice does not necessarily support the IP property strategy for startups, it is necessary to aim the expansion for strengthening support systems that can comprehensively respond to various IP needs in addition to increasing the scale of personnel with both startup business reality and IP strategy knowledge.

In a matching of personnel supporting the IP strategy for startups, the role as a communicator connecting startups to personnel supporting the appropriate IP strategy according to startup's business stage is important and VC is expected to play the role. When startups search for personnel to support their IP strategy, there are many cases that they are introduced through VC and the personnel information is exchanged on a network between VC. Some VC firms have also created in-house human resource teams to support the IP strategy of the startups where they support. At present, Japanese VC capitalists, with some exceptions, do not necessarily fully understand the importance of IP strategy in the deep tech and biomedical fields. According to this, many VC capitalists need to make efforts to deepen their understanding of the importance of IP strategy.

VC and startups also need to send impactful and continuous messages to expand the support service market with the deepening understanding of personnel, who meet these specifications, for startup businesses in order to have more personnel with a wide range of specifications participate in the startup support service market.

For promoting these efforts, it is necessary to expand the scale of human resources who can support the IP strategy of startups through holding seminars and symposiums while closely collaborating with related organizations of VC and patent attorneys, and to improve the close network connection with VC, startups and the human resources who support the IP strategy of startups. By the same meaning, it is also necessary to consider the realization of effective exchange activities with a sense of purpose at forums where personnel with experience in management, business, IP strategy, and new business startups in the VC industry and large enterprises, or consultants gather.

Large enterprises are also expected to actively invest their own extensive human resources in alliances with startups by supporting the startups' commercialization from human resource perspectives and required to take a stance that leads to both enterprise value improvement.

While proactive efforts with related industries and human resource forums are expected, the government should also engage in activities to actively encourage exchanges with different industries and forums. It is important for the public and private sectors to design and execute specific activities and movements to strengthen the depth and network of human resources supporting the IP strategy of startups and cooperate to achieve the objectives.

(Direction of measures)

- Promote an ecosystem activation through effective information dissemination such as video distribution utilizing an IP portal site for startups and provision of a place to connect people involved in the venture ecosystem and in the IP. In particular, as part of information dissemination, we will create contents for the IP beginners of startups and expand information for experts on the IP portal site and provide opportunities at local venues.

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

- Strengthen the network of VC industry and IP strategy experts through the establishment of a framework collaboration with related organizations as the Japan Venture Capital Association and the Japan Patent Attorneys Association for startups can receive support of human resources who can provide the right services to meet their needs by VC. In addition, the IP specialists of patent attorneys and lawyers will be newly dispatched to venture capital firms from FY2022 to strengthen the establishment support of the IP strategy for startups.

(Short-term, Medium-term)

(Cabinet Office, Ministry of Economy, Trade, and Industry)

- Support for startup enterprises, non-profit corporations that are working to solve social challenges as the SDGs to continue and expand their efforts by utilizing the IP through the development of lecture programs and escort support by various experts within FY2022. At that time, verify methods as not only monopolizing the IP but also sharing it with others through licensing to solve social challenges, create a handbook, and conduct disseminate and utilization. Information will be disseminated through the Expo 2025 Osaka, Kansai, Japan to be held in 2025 regarding the methods and results of solving social challenges through the IP created in this project.

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

- Promote the sharing of know-how related to startup support for the IP experts who are on the supporting side with expanding the scope of IPAS support to pre-founding enterprises and enhancing the establishment of appropriate IP strategy that correspond to the startup business in the founding stage.

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

(6) Promoting the provision of management assets for startups by large enterprises, etc.

While large enterprises have an abundance of the IP, human resources, and funds, they are facing challenges in innovation that is necessary for the economic and industrial changes with social transformation. It is important to promote further creation and utilization of the IP and intangible assets through cooperation and collaboration between the resources of large enterprises and the innovation functions of startups.

For this reason, it is important for large enterprises to provide management assets and support for startups. CVC and other specific departments have importance of taking on the mission of arranging for the provision of various management assets owned by large enterprises such as the IP, human resources, skills, and customer networks.

Furthermore, large enterprises acquire startups that have grown through these alliances through M&A for linking to social implementation while utilizing the various resources possessed by large enterprises, and it is important to create a flow to accelerate internal metabolism by replacing existing assets.

Large enterprises must have the ability to fully utilize the IP that is the result of startups, actively incorporate the innovation function of startups into their own management, and boldly apply this to structural reforms within the enterprise. However, there are cases that win-win collaborations have been thwarted by reasons; 1) when large enterprises and startups collaborate, the large enterprises may give priority to their own IP, 2) unable to understand the resources and strengths of startups, and 3) inability to properly implement the PMI. It should be strongly recognized that it is exposed to evaluation from the capital market, financial market, and labor market for the superiority and inferiority of organizational learning ability to regain growth potential by rather than destroying the achievements and innovative enterprise culture of acquired startups, replacing existing assets, consolidating, and replacing outdated business protocols and corporate cultures.

CEO of large enterprises have to be prepared and let it permeates at workplaces for changing the attitude of collaboration with startups of these large enterprises and building the Win-Win relationship. The purpose of large enterprises' support for startups is not contributing to the society, but to properly distribute the added value generated through open innovation with startups, and to achieve self-improvement through such activities. Enterprises should be strongly aware that the success or failure of enterprise's survival depends on whether it can transform its closed enterprise culture through co-creation with startups.

Furthermore, large companies must be willing to cutout their superior IP and human resources through the carve-out and spin-offs and make the most of startups' innovation capabilities for maximizing Japan's innovation capabilities.

Many Japanese enterprises are not able to separate their core and non-core businesses, and this may be a factor in the lack of smooth business restructuring and divestitures. Enterprises must classify and evaluate their management resources including the IP and Establish a mechanism linking to appropriate restructuring its evaluation results timely and business cutout.

For this reason, the board of directors will oversee how the company evaluates and utilizes the innovation function of startups, and whether the company is able to classify and evaluate its management resources with an awareness of its core and non-core resources and they must disclose and disseminate the information to investors and financial instantons.

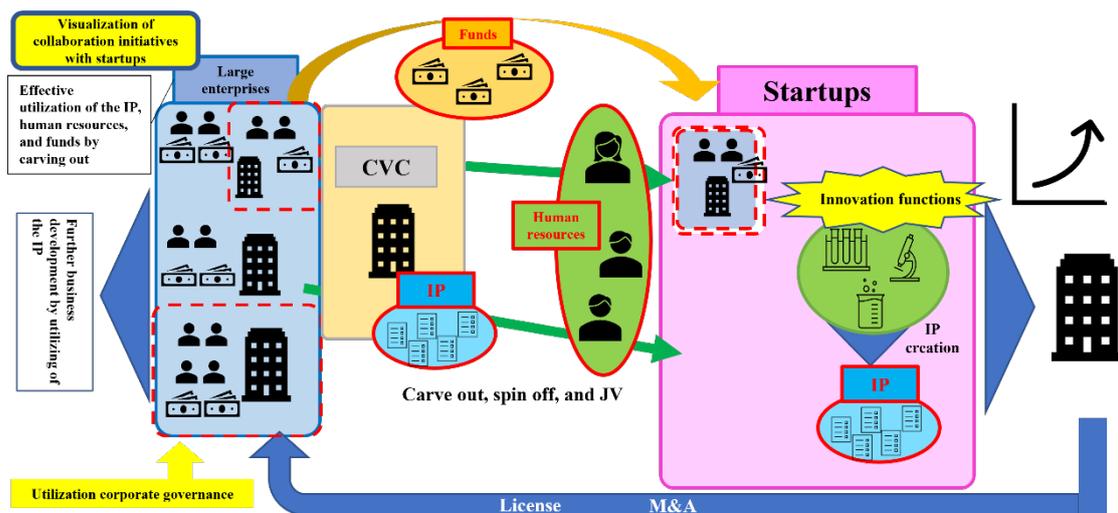


Figure 8: Provision of management assets to startups by large enterprises

The "Intellectual Property and Intangible Assets Governance Guidelines" published in January 2022 should be revised to include new content to promote efforts for providing management assets of their own IP and human resources by large enterprises in order to take full advantage of the innovation capabilities of startups in the future.

(Direction of measures)

- Revise the “Intellectual Property and Intangible Assets Governance Guidelines”, disclosure of efforts by large enterprises to provide management assets of their IP and human resources to startups, and expand content regarding governance for strengthening win-win alliances between large enterprises and startups.

(Short-term, Medium-term) (Cabinet Office, Ministry of Economy, Trade, and Industry)

(7) Correction of unfair trades by large enterprises

It is also important to correct the unfair trade practices that have been observed when large enterprises collaborate with startups to promote open innovation as patent rights being monopolized by large enterprises or patents in the vicinity being locked up by large enterprises.

The environment has been improved with the publication of the "Business Collaboration with Startups and Investment in Startups Guidelines" (Fair Trade Commission, Ministry of Economy, Trade, and Industry) and the "Model Agreement for Promoting Open Innovation between R&D Startups and Business Companies" (Ministry of Economy, Trade and Industry).

Further efforts should be made to correct unfair IP transactions including disclosure how large enterprises handle the IP of startups and strengthening the governance through revised “Intellectual

Property and Intangible Assets Governance Guidelines” in the future.

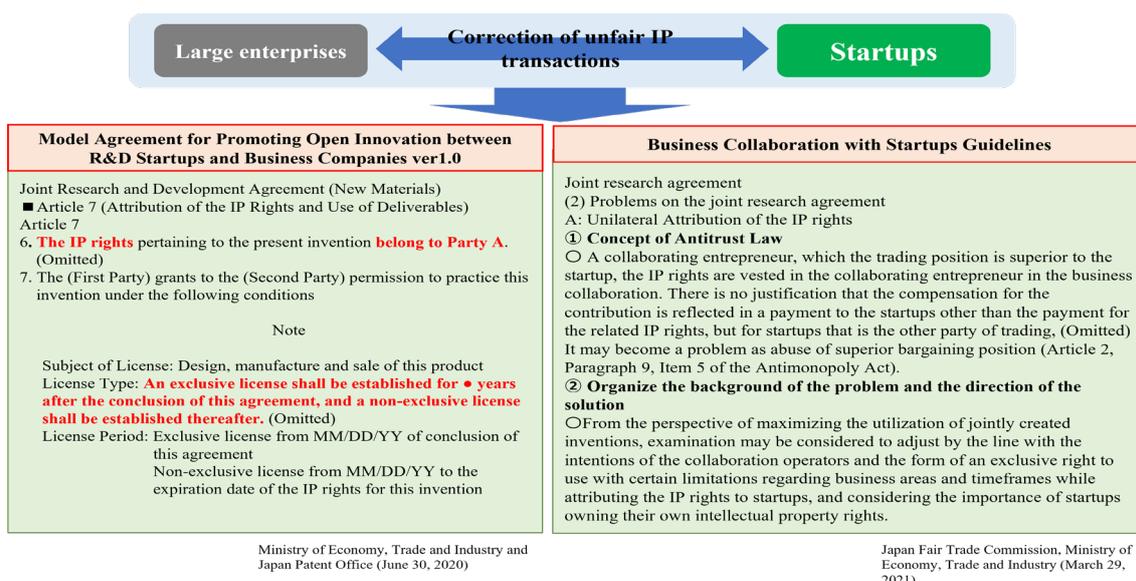


Figure 9: Appropriate IP transactions between large enterprises and startups

(Direction of measures)

- Generalize and establish a “model contract” that targets R&D startups and “Business Collaboration with Startups and Investment in Startups Guidelines”. Consider adding variations to example clauses in each published model contract.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, Japan Fair Trade Commission)

- Conduct a written survey for approximately 20,000 companies regarding the transactions between large enterprises and startups not subjected by the Subcontract Proceeds Act in accordance with the Business Collaboration with Startups and Investment in Startups Guidelines” formulated in March 2022.

(Short-term) (Japan Fair Trade Commission)

(8) Formulating of the “University Intellectual Property Governance Guidelines (provisional name)” and percolating into universities

In regard to the contents related to the IP management at universities for how the IP compensation should be obtained for the IP transfer to startups, the patent application process management facing toward to commercialization, and rules related handling of joint research results with enterprises, “University Intellectual Property Governance Guidelines (provisional name)”² must be formulated and published.

² The "Strengthening Joint Research by Industry-Academic-Government Collaboration Guidelines [Supplement]" (Ministry of Education, Culture, Sports, Science and Technology and Ministry of Economy, Trade, and Industry, in June 2020), and “Gui0064ance on the Shares and Stock Acquisition Rights in University-Launched Ventures by Universities" (Ministry of Economy, Trade and Industry, in May 2019)” for the status of the IP management at universities have published already. Since the "Sakura Tool"

<p>1. How to obtain compensation for the IP transfers to startups</p> <ul style="list-style-type: none"> ○ Active utilization of shares and stock acquisition rights ○ Concept of issuance limit of stock acquisition rights as to technology transfer (Distinguish it from the issuance quota for personnel acquisition (10-15%) and determine individually through the evaluation of individual IP) <p>2. Rights acquisition for commercialization</p> <ul style="list-style-type: none"> ○ Collaboration process with commercialization entities (Ex: Collaboration with a commercializing entity within a certain period of time (within one year) from the application filing with a priority claim) <p>3. Handling of joint research results</p> <ul style="list-style-type: none"> ○ Single application is preferable for joint research results, but in the case of. Rules that allow licensing to a third party at the discretion of the university if the shared partner fails to do so for a certain period of time. a shared patent.

Figure 10: Example of the content structure of the “University IP Governance Guidelines (tentative name)”

As for the relationship between universities and startups that use their research results to commercialize, while startups conduct in commercialization, there are cases that unfavorable licensing terms is offered by negotiating universities. According to this, in the “University Intellectual Property Governance Guidelines (provisional name)”, it is important to clarify that mission of the university is to link research results to the social implementation and give back to society widely, and these missions need to infiltrate into the daily work of startup support affiliates at universities.

In particular, based on supporting university funds for the World-leading Innovative Research University and importance of valuation and IP of research results in the "Comprehensive Promotion Package for Research Universities with Regional Core and Distinctive Characteristics", a mechanism to disseminate this content at universities across the country should also be considered.

(Direction of measures)

- Based on supporting university funds for the World-leading Innovative Research University and importance of valuation and IP of research results in the "Comprehensive Promotion Package for Research Universities with Regional Core and Distinctive Characteristics", in order to lead to commercialization created IP at universities for startups, the "University Intellectual Property Governance Guidelines (tentative name)" including acquisition of appropriate compensation for stock acquisition rights related to intellectual property transfer to startups, patent application process management for obtaining high-quality rights for commercialization, rules for handling joint research results with enterprises will be formulated by the end of 2022, and a mechanism to disseminate the guidelines among universities nationwide will be studied.

(Ministry of Education, Culture, Sports, Science and Technology, individual type FY2016, and consortium type FY2017) and "Model Agreement for Open Innovation Promotion (University Edition)" (Japan Patent Office, FY2021) are available as templates for contracts in joint research so that it is necessary to proceed with the formulation while sorting out these relationships.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, Japan Fair Trade Commission) [Reposted]

2. Strengthening the investment and utilization promotion mechanism of the IP and intangible assets

(Current situation and challenges)

<Utilizing of corporate governance mechanisms>

Despite the growing importance of the IP and intangible assets as a source of competitiveness, compared to other countries, Japan has an overwhelming lack of investment in intellectual property and intangible assets necessary for future growth. It has also been pointed out that Japanese enterprises have not sufficiently demonstrated the value of their IP and intangible assets that are their strengths, and the growth potential of their business models that utilize these assets may be a factor contributing to the stagnation of their enterprise value in dialogues with investors. It is important to establish a mechanism to visualize how enterprises build and execute the investment of the IP and intangible assets, to be properly evaluated of these strategies by investors and financial institutions, to increase the enterprise's value that build and execute better investment and utilizing strategy of the IP and intangible assets, and to lead to funds for further investment in the IP and intangible assets in order to encourage enterprises recognize the importance of investment and utilization of the IP and intangible assets and actively invest in and utilize the IP and intangible assets.

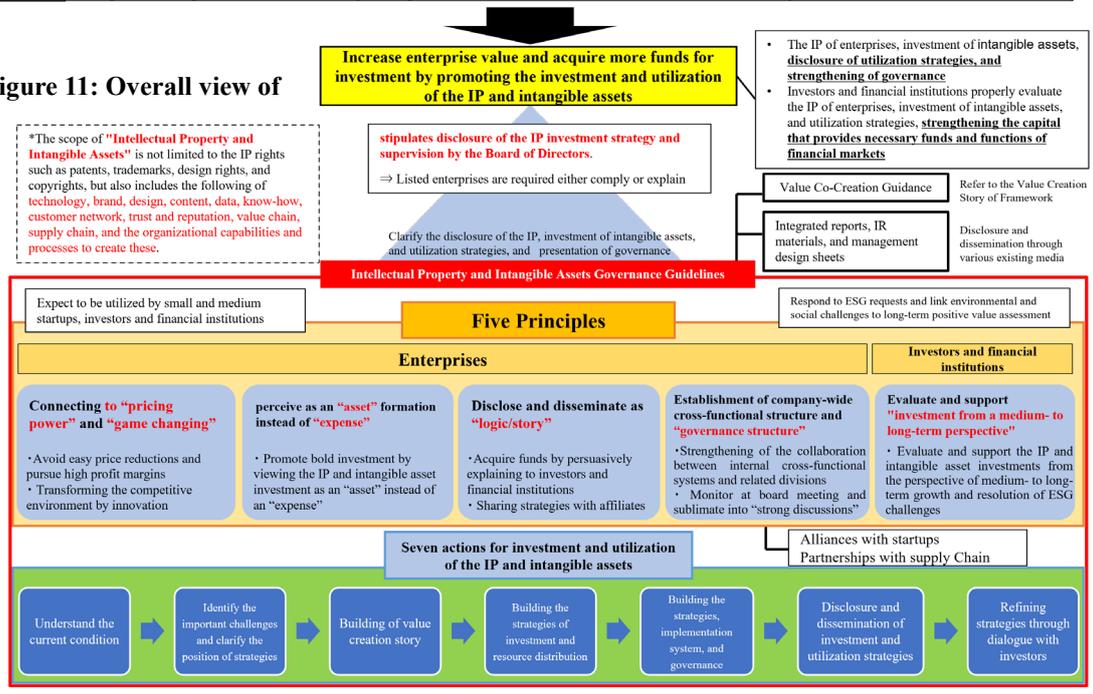
Under these circumstances, the revision of the Corporate Governance Code in June 2021 included disclosure of the IP investment strategy and supervision by the board of directors. In light of this, the "Intellectual Property and Intangible Assets Governance Guidelines" were published in January 2022 to show clearly what form enterprises should take to disclose investment and utilization strategies for the IP and intangible assets and how to build the governance for the appropriate evaluation by investors and financial institutions.

The "Intellectual Property and Intangible Assets Governance Guidelines" present five principles and seven actions for the investment and utilization of the IP and intangible assets. In other words, the five principles presented for enterprises are; (1) link the IP and intangible assets to "price-setting power" and "game change," (2) understand the IP and intangible assets as forming "assets" rather than "costs," (3) disclose and communicate the investment and utilizing strategy of the IP and intangible asset as a "logic/story", (4) conduct an enterprise-wide system maintenance and "build governance" to build and execute of the investment and utilizing strategy of the IP and intangible asset for investors and financial institutions, (5) evaluate and support the "investment from a medium- to long-term perspective".

In addition, seven actions are presented how enterprises should respond specifically, (1) understand the current situation, (2) identify key challenges and clarify the positioning of strategies, (3) build a value creation story, (4) build strategies for investment and resource allocation, (5) build a strategy and execution system and building a governance, (6) disclose and disseminate of investment and utilization strategies, and (7) Refine of strategy through dialogue with investors.

Current condition	<ul style="list-style-type: none"> • Growing Importance of Intellectual Property and Intangible Assets as a Source of Competitiveness (← advancement of digitalization and request of green society realization) • Japanese enterprises are behind at foreign enterprises in the investment and utilization of the IP and intangible assets.
--------------------------	--

Figure 11: Overall view of



the "Intellectual Property and Intangible Assets Governance Guidelines"

Some Western enterprises have earned high marks from investors by providing quantitative disclosures, for instance, it provides a basis for judging the investment recovery period by showing it together with the depreciation periods regarding the scale and policy of R&D investment. The enterprise’s management and personnel in a wide range of departments within the enterprise should fully understand the contents of the revised Corporate Governance Code and the "Intellectual Property and Intangible Assets Governance Guidelines", in keeping with its purpose, they need to engage in constructive dialogue with investors, financial institutions in order to promote the investment and utilization of the IP and intangible assets in the future.

It is also important for enterprises not to easily judge their own response as "comply" for promoting enterprises to take full-scale initiatives based on the revised Corporate Governance Code and the "Intellectual Property and Intangible Assets Governance Guidelines". From this perspective, in the “Study Group on Effective Disclosure and Governance of Intellectual Property Investment and Utilization Strategy” that discussions were held toward the formulation of the IP and intangible asset governance guidelines, the report stated in September, 2021 that if enterprises made a decision to "comply" even though it had not reached the stage of full-scale disclosure for investment and utilization of the IP and intangible assets, investors would consider it to be an insincere attitude, which was likely to lead to a negative evaluation of the enterprises.

The status of enterprise initiatives based on the revised Corporate Governance Code and the “Intellectual Property and Intangible Assets Governance Guidelines” is to clarify for the capital and financial markets, the enhancement of environment in order to evaluate enterprise initiatives properly is important, and research and consulting firms specializing in the IP and intangible assets are also expected to play such a role from now on.

It is also important to collect and share good cases of enterprise initiatives for promoting corporate efforts within the “Intellectual Property and Intangible Assets Governance Guidelines”. In addition to these good practices of enterprises, reviewing the guidelines as needed while incorporating new knowledge and initiatives has importance as well.

In particular, in the "new capitalism" that realizes a sustainable economy through a virtuous cycle of growth and distribution while startups are expected to be a trump card for increasing added value, Japanese companies are required to make the most of the innovation capabilities of startups and be aware that making startups successful will lead to their own growth and improved enterprise value. While it has been pointed out that the IP held by large enterprises is not fully utilized, enterprises must accurately understand the status of utilization of their IP, transfer the underutilized IP to startups for utilization, and manage the IP precisely as management assets.

At the Board of Directors, with supervising startups from the perspective of sufficient utilization of innovation functions and utilizing status of owned IP, it is important to consider strengthening the "Intellectual Property and Intangible Assets Governance Guidelines" for encouraging disclosure and dissemination to investors and financial institutions.

Furthermore, investors must analyze and evaluate the investment and utilizing strategy of the IP and intangible assets disclosed and transmitted by enterprises and reflect in their investment portfolios and exercise of voting rights through dialogue with enterprises for promoting the initiatives toward the investment and utilization of enterprise’s IP and intangible assets. On the other hand, looking at the capital markets in recent years, there has been an increase in so-called passive investments because the trading behavior based on the analysis of individual enterprise is generally not conducted so that the results of dialogue with enterprises are unable to reflect in portfolio recombination. In light of the current state of the capital market, the key challenges are how investors can play a role in this process for enterprises working to improve enterprise value through investment and utilization of the IP and intangible assets. In light of the purpose of the inclusion of disclosure and board oversight of IP investments on the revised Corporate Governance Code in 2021, it is necessary to consider policies to clarify the role of investors in promoting enterprise value enhancement through investment and utilization of the IP and intangible assets through dialogue with companies.

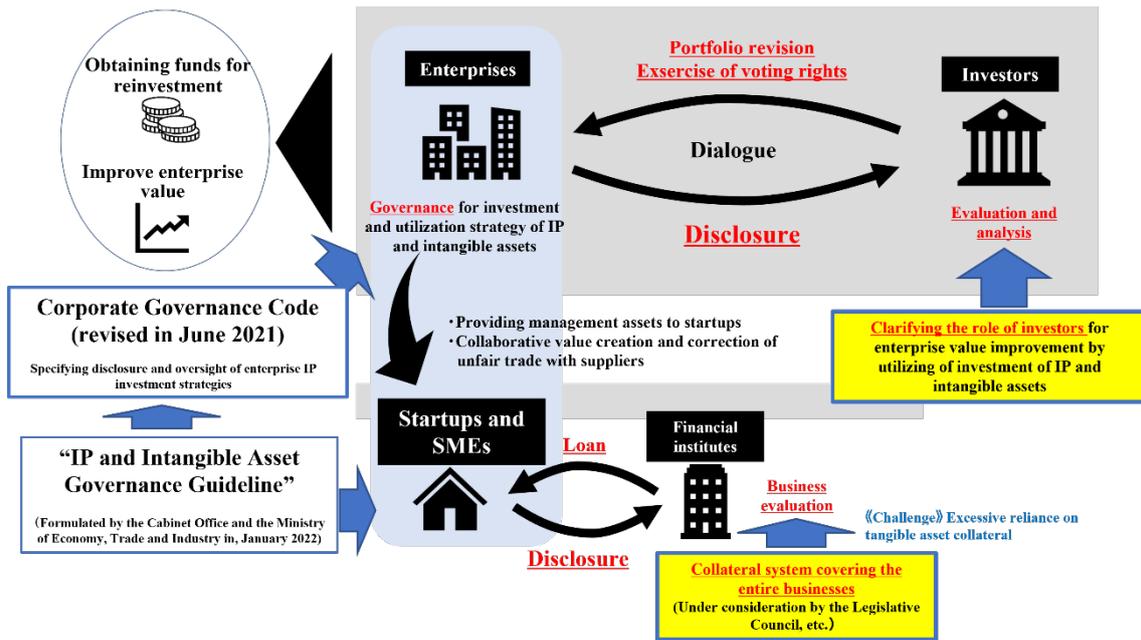


Figure 12: Image of investment and utilization promotion mechanism of the IP and intangible assets of SMEs and startups

<Investment and utilization of the IP and intangible assets of SMEs and startups>

Building and executing the investment and utilization promotion of the IP intangible assets, and aiming to obtain necessary funds for growth are the important challenges for SMEs and startups. According to this, SMEs and startups are freed from the current situation that collateral assets are actually centered on tangible fixed assets, the value of the entire businesses including the IP and intangible assets and their utilization policies is appropriately evaluated, and the environment that is easy to provide funds for investors and financial institutions must be enhanced.

It is effective to build and implement investment and utilization strategies for the IP and intangible assets, and to deepen dialogue with financial institutions based on the "Intellectual Property and Intangible Assets Governance Guidelines" in the SMEs and startups.

The "Study Group on Financing and Rehabilitation Practices to Support Businesses" of the Financial Services Agency has been advocating for the establishment of "Business Growth Collateral (tentative name)" as a new collateral system covering the entire business based on a business feasibility assessment so that discussions are underway to revise the collateral system including the possibility of the collateral system for the entire business in the Legislative Council of the Ministry of Justice Collateral Legislation Subcommittee at present. It is important to proceed these examinations continuously and the discussions toward its implementation need to be deepened.

One of the tools to support business feasibility evaluation in financial institutions, Clarification of management strategies utilizing a management design sheet and dialogue with company management based on these strategies may be considered. Some financial institutions are already utilizing the management design sheet. The management design sheet is to confirm enterprise's self-unique sense of values and purpose of existence by using a simple form, clarify the value implemented for the

society and the future image of yourself and others collaborated and shared of its value, and compare the future image and the conventional image. It is useful in the practice of formulating current strategies.

As for the management design sheet, we will promote its wide utilization through Intellectual Asset Management Week. The Small and Medium Enterprise Agency Published “Reconstruction of SME companion support model ~ Aiming to bring out the latent potential of business owners under drastic environmental changes such as COVID-19, decarbonization, and DX~” in March 2022, the purpose is for the business growth, SMEs aiming for sustainable development, self-transformation power of small business owners, drawing out potential, strengthening and rebuilding a management capability. The management design sheet is exemplified as one of the support tools for developing a future vision of management by being utilized to formulate the future-oriented management strategy and SMEs are expected to be revitalized.

As mentioned in the “Basic Guidelines for Spreading of Value Design Management” shown in April, 2021, the management design sheet is a tool to design a mechanism for creating a future value (value creation mechanism). It will lead to the implementation of the value design society when each individual and organization utilize the management design sheet, create diverse values one after another and transmit them.

(Direction of measures)

- Proceed the examination regarding the initiatives that can provide direct feedbacks (e.g., awards) from investors to managers for the investment and utilization of the IP and intangible assets contributed to improving corporate value toward promoting the investment and utilization of the IP and intangible assets. Accelerate the monitoring the utilization status of the "Intellectual Property and Intangible Assets Governance Guidelines," collecting and sharing examples of utilization, and initiatives to promote the dissemination of logo marks and slogans and collecting and sharing good practices of intangible asset disclosures.

(Short-term, Medium-term) (Cabinet Office, Financial Services Agency, Ministry of Economy, Trade, and Industry)

- Support the visualization of the position of the IP and intangible assets in the management and building of strategies and its systematization through dispatching experts to enterprises from FY2022 for infiltrating the practice of management utilizing intellectual property and intangible assets in Japanese enterprises. Lead to the promotion of sustainable enterprise value creation and disclosure of investment in the IP and intangible assets.

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

- Revise the “Intellectual Property and Intangible Assets Governance Guidelines” within FY 2020 to strength the disclosure and governance regarding the visualization of the status of the IP utilization by large enterprises including initiatives by large enterprises to provide management assets to startups and the utilization status of joint research results with universities.

(Short-term) (Cabinet Office, Ministry of Economy, Trade, and Industry)

- Exam policies to clarify the role of investors for improving the enterprise value creation by investment and utilization of the IP and intangible assets through dialogue with enterprises and reach a conclusion by the end of FY2022.

(Short-term,) (Financial Services Agency, Cabinet Office)

- Exam early institutionalization regarding the system that allows the procurement of funds from financial institutions using the entire business including intangible assets of goodwill and the IP as collateral while paying attention to the method of ensuring convenience and the protection of other creditors for businesses starting up, in the process of business succession, or turnaround are able to maintain the environment the for fundraising, rather than relying solely on tangible assets of real estate, management guarantees, and equity, in reference to overseas systems and practices.

(Short-term, Medium-term) (Financial Services Agency, Cabinet Office, Ministry of Justice, Ministry of Economy, Trade, and Industry)

- In response to requests from enterprises to disclose climate change risks and opportunities, create and publish the technology classification table for a bird's eye view of Green Transformation (GX) related technologies in correspondence with the international patent classification. Promote the evidence-based disclosure to analyze patent information within FY2022 by using the technology classification table.

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

- Conduct useful evaluation and analysis of IP owned by SMEs and promote the SMEs support by financial institutions for conducting the creation assistance of the "Intellectual Property Business Evaluation Report" to regional financial institutions with providing templates and guidelines for the Intellectual Property Business Evaluation Report" creation in order to promote the IP utilization in SMEs through the business feasibility evaluation from the IP perspective.

(Short-term) (Ministry of Economy, Trade and Industry)

- Work to build the ecosystem for the diffusion and practice of value design management for expanding the management design sheet utilization to enterprises, startups, and SMEs based on the "Basic Guidelines for Spreading of Value Design Management" formulated in April 2021.

(Short-term, Medium-term) (Cabinet Office, Financial Services Agency, Ministry of Economy, Trade and Industry)

3. Promoting the strategic use of standards

(1) Combined efforts by the public and private sectors to promote the focused use of standards

(Current situation and challenges)

<Selection and support of important fields>

As an important factor in the development of enterprises or industries, awareness of the importance of the international standard strategies is growing globally, the activities of global companies and government industrial policies are gaining momentum in many countries over the initiative in forming international standards.

International standards contribute to the early social implementation of advanced technologies and innovations aimed at resolving social challenges and are an important measure for enterprises to acquire international markets under the international competition. There is a movement toward DX and data platform construction in various fields (entrance of platformer-like companies and expansion of cross-sectoral collaboration with international enterprises) so that this trend is accelerating.

The EU and other major countries are accelerating the formation of the international standards in a wide range of fields including strategy areas. For example, the EU published “An EU Strategy on Standardisation” in February 2022 and China published “National Standardization Development Outline” in October 2021. The fields listed in these strategies include technologies that should be taken into consideration from the perspective of Japan's economic security, and they are in line with the important fields of science, technology and innovation policy, clean energy policy, digital policy promoted by the Japanese government. It is essential for Japan to promote the use of international standards while paying close attention to such developments.

Five key sets of actions are proposed in “An EU Strategy on Standardisation”, (1) anticipate, prioritise and address standardisation needs in strategic areas, (2) improve the governance and integrity of the European standardisation system, (3) enhance European leadership in global standards, (4) support innovations, and (5) enable the next generation of standardisation experts.

It is stated that standardisation priorities is clearly identified, a high-level forum is set up to ensure coordination of these priorities, the European Commission will assess how to better support researchers and innovators participating in EU funded R&D&I projects to take part in relevant standardization activities and launch the “Standardisation Booster” that is a platform to help beneficiaries, raising strategic awareness among researchers and innovators, and so on.

In Japan, the “Task Force for promoting the Use of Standards” was placed under the Integrated Innovation Strategy Promotion Council and a budget was provided to support the acceleration of main measures by relevant ministries and agencies for promoting the strategic use of standards combined efforts by public and private sectors. Building a control tower function regarding standard utilization within the government and strengthening of an execution system was conducted, and budget allocation for main measures of relevant ministries and agencies, and execution support of standard utilization in those measures were accomplished.

However, as mentioned above, with the progress of efforts in other countries, it is necessary to promote and strengthen the social implementation of science, technology and innovation, aiming to formulate an international standard strategy for Japan based on recent international trends. It can lead to social implementation by responding to the rapid pace of innovation and recognizing the importance of international standardization strategy fully for promoting an international standardization strategy as our country. To this end, it is necessary to select important fields for an industrial policy, and accelerate the strategic use of international standards throughout Japan, focusing on the selected important fields based on the status of efforts in other countries and the perspective of Japan's economic security. For accelerating the utilization of international standards in Japan-wide, it is important to have ideas that industry- government-academia including companies, government, universities, national research institutes, and other organizations should collaborate with each other to promote strongly. Regarding the formation and utilization of international standards in Japan, it is also necessary to further raise the awareness of industry- government-academia and promote efforts to improve their capabilities.

From the perspective of Japan's economic security, it is required that we must aim to formulate the international standardization strategy as a nation, further improve the system for promoting the international standardization strategy, and strongly promote the strategic use of standards through the concerted efforts of the public and private sectors. The collaborations with comradely countries shared the basic values must be essential to promote such efforts.

Furthermore, international standards become increasingly important in the DX and green trends that connect everything. It is required to formulate and promote the strategy of international standards together with the business strategy and connect it to the social implementation based on a broader architectural design including what the core revenue stream in the inter-industry layer is, and what it should be standardized internationally in addition to conventional individual areas.

On the other hand, in anticipation of market expansion, building of strategic alliances that transcend the boundaries of a single enterprise or country depending on the fields and promoting it should be necessary. We will carefully identify competitive areas and collaborative areas there. While demonstrating the strengths of individual companies in competitive areas and implementing the collaboration for the strategic standard utilization that transcends the boundaries of enterprises and nations in the collaborative area, attention should also be paid to formulating strategies from a broad perspective as “co-creation.”

As a results, it will make Japan an indispensable presence in the international market, lead to market acquisition under global competition, and furthermore, lead to the strengthening of the foundation that is indispensable for maintaining people's lives and socioeconomic activities by maximizing the utilization of international standards for the social implementation and solving social challenges ahead of the rest of the world.

<Clarification of social implementation strategy, international competition strategy,

international standard strategy and introduction of business operation system>

As mentioned above, in order for Japanese enterprises to achieve sustainable growth in the future, it will be important to implement technologies as much flexibly and speedily as possible. In other words, the axis of competition in the innovation competition has been shifted to speed.

The competition to gain technological hegemony is becoming more intense and the standards required for competitive strategies are becoming higher and higher. It is essential to have a high-level competitive strategy and a high-quality standard strategy that is inseparable from it for surviving this competition.

It will be difficult to link to business success even if the standard strategy can be executed because standard strategies are often formulated on their own without clarifying the strategies for accelerating the social implementation and international competition strategies based on the technological trends in the world.

While the social dissemination of new technologies and innovations that contribute to solving social challenges is progressing as a business along with international competition, enterprises must have the social implementation strategy, international competition strategy and international standard strategy to secure an international competitive advantage. The system needs to be disseminated for private business operators that will clearly present the social implementation strategy, international competition strategy and international standard strategy, and introduce the system for business operation and follow-up required the commitment of enterprise managements to efforts toward achievement in the government-supported projects for the early social implementation in the important field of science, technology, and innovation policies.

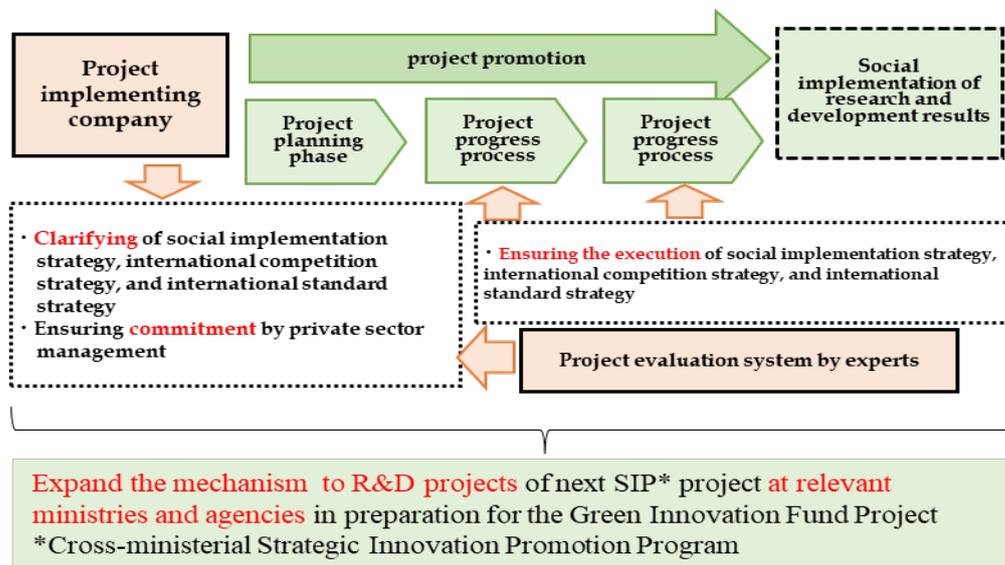


Figure 13: A mechanism to strengthen the international standardization strategy by private companies through government-affiliated R&D projects

<Evaluation and promotion by experts>

In the above mechanism, it is necessary to work integrally while sharing information in industry-

government-academia and to promote the normalization of current status evaluation of the international standard utilization and identification of challenges, and activity management through continuous monitoring from the beginning of the project. To this end, it is also required to promote the support by expert's evaluation and promotion, and related institutions of independent administrative agencies as the government CSO (Chief Strategy with standardization Officer) that complements the professionalism for the international standard strategy by each of the overall supervision by government meetings, industry, field, and business.

<Fostering of standard utilization human resources>

In order to survive in global competition by utilizing international standards and implementing competitive strategies, it is required to formulate a competitive strategy that is inseparable from the standard strategy in the important fields, to acquire an organizational capability to execute its strategy with improvement. It is absolutely necessary to foster of standard utilization human resources and it must be implemented as soon as possible for acquiring of its organizational capability.

In regard to fostering of standard utilization human resources, Continuous participation in the international community forums is a unique opportunity to acquire the necessary strategic sense for promoting the international standardization by understanding trends of cutting-edge technology and the intentions of each country, so many have pointed out that it should be actively and effectively utilized. However, the majority of Japanese enterprises competing in the global market are considered to be far behind in the European and US enterprises in regard to input resources for the standard utilization (human resources, standard activity participation resources). In particular, private enterprises in other countries are adopting a human resource strategy that leads the international community including having young personnel participate in the process of international standardization and having many experienced personnel participate in the international standardization organizations.

In Japan, in addition to the international standardization, human resource development based on the ability to formulate and implement of the international standard strategy by premising of the social implementation strategy and international competitive strategy is required. We are in a situation where it is necessary to improve the status and influence by clarifying the career paths of human resources involved in the international standard strategy, and to strength of responses as participation in the international community in step with conducting the strategical human resource development and management not only within the enterprises but also within related industries for each business area including raising awareness, inputting young personnel newly, and planned accumulation of experience in the international standardization activity.

(Direction of measures)

- Identify widely the new important fields of a quantum technology as a control tower of “Standard Utilization Promotion Task Force” and provide support for individual and specific activities necessary for the formation of the international standards including supporting for accelerating of standard developments based on economic security perspectives. Examine international standardization and support measures as necessary by individual project status regarding in a public-private consultative meeting based on the " Security Assurance Promotion through Integrated Economic Measures Act” through the integrated implementation of economic measures. In promoting these efforts, strengthen collaboration with comradely countries shared the basic values.

(Short-term, Medium-term) (Cabinet Office, Cabinet Secretariat, Ministry of Internal Affairs and Communications, Ministry of Foreign Affairs, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism, Ministry of the Environment)

- Present the social implementation strategy, international competition strategy, and international standard strategy clearly by private business operators in R&D projects supported by the government for the early social implementation of science, technology, and innovation. Introduce a system for business operations and follow-ups that requires the commitment of enterprise management to efforts for achieving the goal. Penetrate the mechanism to ensure the strategic utilization of the international standards by enterprises. Promote initiatives including trial operations starting with the following R&D project from FY 2022.
 - Green Innovation Fund Projects
 - Beyond 5G R&D Promotion Project
 - Research and Development of Enhanced Infrastructure for Post 5G
 - Next SIP Project

(Short-term, Medium-term) (Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry, relevant ministries, and agencies)

- Consider adding international commerce and logistics to the above-mentioned fields with policy challenges in addition to the Smart city, Beyond 5G, Green growth (hydrogen and fuel ammonia), Smart agriculture, and Smart food chain selected as an area that should be prioritized across ministries and agencies.

(Short-term, Medium-term) (Cabinet Office, Ministry of Agriculture, Forestry and Fisheries, Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism, relevant ministries, and agencies)

- Build systems and mechanisms that lead the international rule creation including enhancing the unified public-private system and supporting for the standardization activity by the private sector with promoting the IP and standardization of quantum computers and quantum cryptography communication for future computing and communication systems based on the strategy related to new quantum technology of “Quantum Future Society Vision” (formulated in April 2022).

(Short-term, Medium-term) (Cabinet Office, Ministry of Economy, Trade and Industry, Ministry of Internal Affairs and Communications)

- Promote overseas expansion by utilizing “Smart JAMP” that is a collaborative measure by the relevant ministries and agencies with the promotion of international standard utilization and proposals related to Smart cities for collaborating with domestic and international standards experts in the important fields in terms of solving social challenges and gaining access to international markets based on the trends in the IP and standards utilization in other countries in the Smart cities field and the policy for strategic and international standard utilization.

(Short-term, Medium-term) (Cabinet Office, Ministry of Land, Infrastructure, Transport and Tourism, relevant ministries, and agencies)

- Conduct international joint research with national and regional research institutions that are reliable and strategic partners with synergistic effects for promoting international standardization activities from the early stages of R&D in order to promote efforts to acquire the IP and international standardization strategically as a core of “Beyond 5G New Management Strategy Center” (Secretariat: National Institute of Information and Communications Technology) that is a base function that brings major players from the Industry-Academic-Government.

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

- Promote the standardization activities in terms of related independent administrative agencies and collaborated and cooperated relevant ministries and agencies toward strategic utilization of standards in the Agriculture, Forestry, Fisheries, and Food fields (smart agriculture technology). Steadily operate a system of communication, information sharing, and consultation in the horizontal connections of relevant organizations in the community and the vertical connections between headquarters and branches within related independent administrative agencies.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries, Ministry of Economy, Trade, and Industry)

- Expand supports for rule formation and human resource development and promote fostering of human resources for supporting the international standardization activity with proceeding the international collaboration in the ISO/IEC Young Professionals Japan Program.

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

- Consider a system that enables visualization and evaluation from the outside of status of system development initiatives regarding the human resource development and rule formation that enterprises conduct the rule formation (IP, standards, and regulations) for ensuring the social implementation of advanced technologies and reach a conclusion.

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

(2) Strategic acquisition and utilization of standard essential patents

In recent years, standard essential patents that are essential patents, are having an increasing impact on global competition. With the penetration of IoT technology.

Meanwhile, the global leadership battle over the rule formation for dispute resolution of standard essential patents has intensified in recent years. Especially in China, while the government and judiciary have decided to work together for the IP protection under the concrete leadership of the Party, the courts have frequently issued "anti-suit injunctions" prohibiting the pursuit of judicial remedies outside of China and they are increasingly forcing the application of their own rules for dispute resolution regarding standard essential patents. In February 2022, the European Commission demanded China for negotiations based on the WTO Agreement and the issue has developed into a trade issue.

Acquiring and utilizing the standard essential patents strategically is going to be important in order for Japanese enterprises to capture global markets while leveraging their superior technological strengths. To do so, Japan must be involved in the rule formation concerning the standard essential patents, and to lead and disseminate them globally by strengthening the position of Japanese enterprises as holders of the standard essential patents for enhancing the competitiveness of Japanese enterprises.

For Beyond 5G, the "Beyond 5G New Management Strategy Center" has been established for the purpose of strategically working on the IP acquisition and standardization with the participation of major players from Industry-Academic-Government and is promoting necessary initiatives in collaborating with related agencies and organizations. It is necessary for the public and private sectors to continue working together strategically to acquire standard essential patents related to Beyond 5G

by Japanese enterprises.

The rule formulations toward facilitating licensing negotiations for the standard essential patents is also important. In the "Intellectual Property Promotion Plan 2021," the following three points need to be considered; (1) clarification of good-faith negotiations, (2) improvement of transparency of essentiality, and 3) securing transparency in setting license compensation, and the necessary measures should be taken. We have just included that the burden of compensation for licenses should be discussed and addressed by the parties involved in the supply chain in order to achieve smooth licensing negotiations over standard essential patents and that should be communicated globally.

Regarding the clarification of good-faith negotiations, In March 2022, the Ministry of Economy, Trade and Industry (METI) published the "Good Faith Negotiation Guidelines for Licensing of Standard Essential Patents" for the rules of good faith negotiation that should be followed by both right holders and licensees involved in licensing negotiations for standard essential patents. At the same time, the Japan Patent Office is also updating the "Guidance for Licensing Negotiations for Standard Essential Patents" formulated in June 2018, based on recent judicial precedents in Japan and overseas.

Going forward, the affiliates in the supply chain should discuss and deal with the burden of licensing compensation for continuing to deepen discussions on improving the transparency of essentiality and ensuring the transparency of license compensation.

(Direction of measures)

- Revise the "Guidance on Licensing Negotiations for Standard Essential Patents" and publish it by the middle of 2022 in order to facilitate inter-industry licensing negotiations for standard essential patents that are expected to increase in the future based on court precedents in various countries and trends of governments in various countries.

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

4. Improving of data distribution and utilization environment toward the realization of a digital society

(Current situation and challenges)

In Japan, the environment for the generation, distribution, and utilization of data, that has exploded in importance, diversity, and capacity with the advancement of digital technology, has not been sufficiently developed in all aspects.

Meanwhile, in overseas, efforts to effectively generate, collect, and utilize data are gaining momentum. For example, in Europe, platforms (PF) such as Catena-X (automotive), AgriGaia (agriculture), and EuroDat (finance) are being built by industry in accordance with the GAIA-X architecture with authentication and access control functions. In addition, the European Data Bill announced in February 2022 requires IoT providers to take measures to ensure that data generated by IoT products and services can be accessed and used by users (including both individuals and corporations) and third parties authorized by the user and requires cloud providers and edge providers to take measures to be able to transfer data to other providers upon request from users (including both individuals and corporations). Legislation to promote access to and use of data is progressing.

As long as Japan continues to respond in a haphazard and patchy manner without responding to the sophisticated digital technology, Japan will fall behind global trends and lose its international competitiveness. Thereby, the "Basic Policies on Reforms for the Digital Society Realization" was formulated in December 2020, the Digital Agency was established on September 1, 2021, and the "Priority Plans for the Digital Society Realization" was formulated in December 2021. This plan clearly states the measures that the government should implement swiftly and intensively toward the realization of the desired digital society, and it promotes the "Comprehensive Data Strategy" formulated on June 18, 2021 as a basic strategy for digitization.

On the other hand, in the IP policy as well, data is now the most important IP in the 21st century, and a new information property policy for the development of the data economy is one of the top priorities in the IP strategy. It is an urgent challenge to enhance the environment that information can be utilized and its value as an information asset can be demonstrated. Therefore, in the "Intellectual Property Promotion Plan 2021," we decided to promote the information property policies and data strategies as the IP policies integrally.

In order to create value from data, various stakeholders are to contribute and create added value, but stakeholders have concerns and anxieties about data distribution as shown in Figure 14, and this has become an issue in data distribution. According to this, Implementation of data handling rules to dispel these concerns and anxieties is important for the promotion of data distribution and utilization.

Stakeholder's concerns and anxieties (challenges in data distribution)
Concerns and anxieties regarding participant's correspondence to the interests
<ol style="list-style-type: none"> 1. Use of data for purposes other than original intent at the providing destination (diversion) 2. Horizontal expansion of knowledge to competitors 3. Affiliate's interests for provided data is unclear 4. Difficulty in participating in compensation payment opportunities 5. Anxiety about data governance at an organization where the data provides to 6. Lack of fair trade markets 7. Negative consequences of having your own data locked in
Concerns and anxieties about privacy protection (handling personal data)
<ol style="list-style-type: none"> 8. Concerns about privacy violation 9. Anxiety about privacy governance of counterparties

Figure 14: Challenges in data distribution

The government formulated the “Contract Guidelines for the Use of AI and Data,” in 2019 and the awareness-raising activities have been conducted continuously. Regarding the provisions related to trade secrets and limited provision data in the “Unfair Competition Prevention Law”, they are discussing the appropriate system based on the socioeconomy shifts such as the rapid shift to digitalization triggered by COVID-19 and further demands for the protection of technology and important data (prevention of overseas outflow).

The data handling rules need to be implemented for progressing the data distribution and creating new values in the PF of priority fields such as quasi-public that is to be developed in the comprehensive data strategy and the interdisciplinary data integration platform. In order to support the data handling rule implementation in those PFs, in March 2022, the viewpoints to consider and procedures to implementing data handling rules has compiled as the “Rules Implementation Guidance” in the “Sub-Working Group on Platform Data Handling Rules” established in the "Data Strategy Promotion Working Group". This rule implementation guidance has the following characteristics:

- Start rule designing from the design stage of value creation process

In order to design a rule, it is required to understand the value to be created, the required data, and the parties (stakeholders) who contribute to value creation, draw a value creation process, and understand the concerns and anxieties (risk in data distribution) of stakeholders. Based on this, the policy for responding with risks according to the degree of impact and frequency of risk occurrence should be established. If the impact of the risk is large and the occurrence frequency is high, it may be necessary to redesign the value creation process to avoid the risk. It is necessary to start considering rules from the design stage of the value creation process.

- Ensuring controllability

Securing controllability of data is important in case of promoting rule development in accordance with the risk response policy.

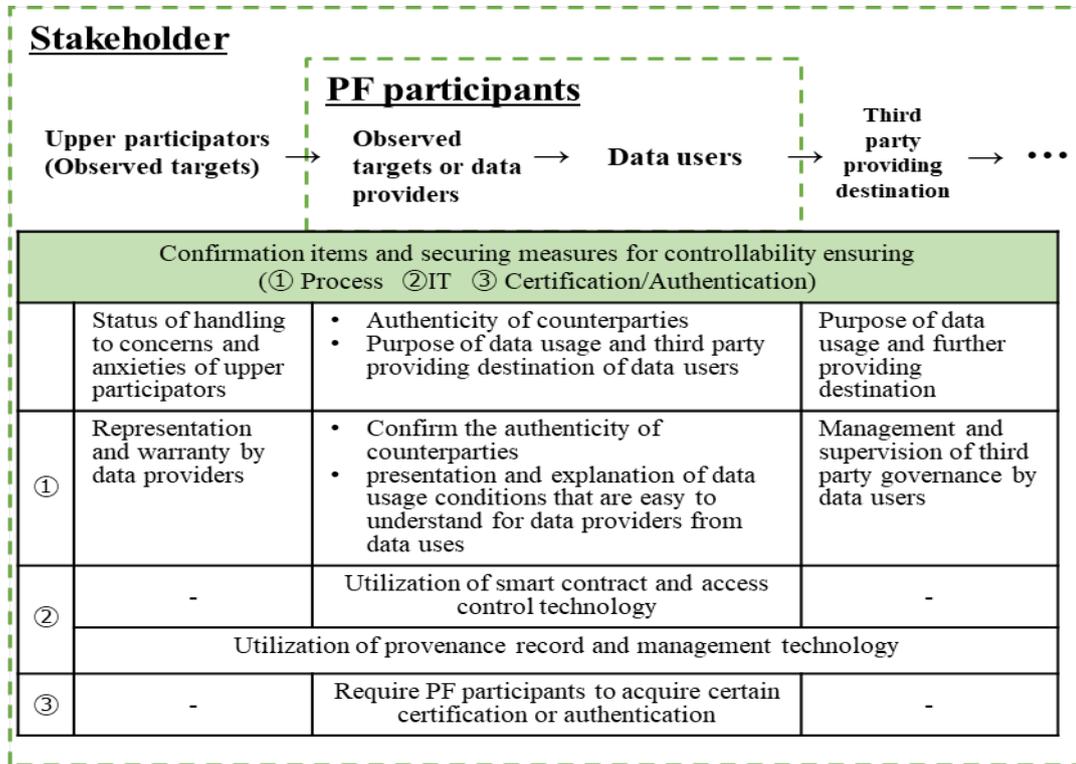


Figure 15: Confirmation items and methods for ensuring controllability in PF

In order to distribute data through the PF, concerns and anxieties of the data providers who provide the relevant data on the PF and the observed targets (including individuals and corporations) who are observed and digitalized by data users on the PF, as well as those who provide data to the data providers and the observed targets who are observed and digitalized by the data providers (upstream participants in Figure 15) should be appropriately cared. The controllability is needed for this purpose. In the rule implementation guidance, the controllability is defined as the “the ability of the data provider or the observed target of relevant data to directly or indirectly get involved in the handling of the data for ensuring that data is used within the stated purposes and data handling policies, or data is not used outside of the stated purposes and data handling policies”.

There are three ensuring methods of controllability; (1) impose the specific data transaction processes to clear stakeholder’s concerns and anxieties, (2) impose the use of specific IT of access control technology and provenance management technology, (3) impose acquisition of specific certifications or authentications related to data governance as participation conditions in the PF. The appropriate method should be chosen and implemented in the PF based on a level of risk.

- Ensuring governance through participation qualification management

The Rule Implementation Guidance takes an approach that tries to dispel stakeholder concerns and anxieties based on data handling rules, that is contract in PF. The governance of data distribution via the PF must be ensured by stipulating requirements for participation in the PF and penalties for violating rules and preparing the mechanism that can revoke participation qualifications if malicious rule violations continue.

- Practicing the agile governance

Stakeholder's concerns and anxieties change depending on various internal and external factors, such as the expansion of PF, technological progress, and trends in international data distribution. Therefore, it is important not to leave the rules once implemented, but to update the rules according to those changes.

While accelerating the construction of PFs in priority fields and inter-field data linkage infrastructure, the rule implementation guidance will be referred and appropriate data handling rules should be implemented. It is same for the data linkage infrastructure built under the Digital Rural City State Concept, and by referring to the rule implementation guidance, the implementation of appropriate data handling rules should be promoted.

Furthermore, it is important to review the data handling rules in an agile manner. Continued consideration is required for trends in international data handling rules including the European Data Act and new issues that may be identified through the construction and operation of the PF.

Data handling rules are also important in promoting research data utilization. In 2021, the government formulated the “Basic Approach to the Management and Utilization of Publicly Funded Research Data” at the Integrated Innovation Strategy Promotion Council and established measures for the management and utilization of publicly funded research data. According to this, the maintenance of data policy and institutional repository were promoted in the institutions conducting R&D, like universities, inter-university research institute corporations, and national research and development institution. Researchers and research project managers create a data management plan (DMP), identify the research data to be managed, and attach systematic metadata to it for research by open-type research funds. This metadata will be recorded in the Research Data Infrastructure System developed by the National Institute of Informatics, which is now in full-scale operation, and will enable users in the Industry-Academic-Government to search for research data. One of the following policies that are “Disclosure (providing research data by utilizable condition for any users)”, “Sharing (providing research data by utilizable condition for limited users who are granted access rights), and “Unshared and undisclosed” should be included in the metadata.

Although many affiliates are involved in the creation of research data, it is very important to set appropriate conditions for the research data handling in case of adopting the policies of “Disclosure” and “Sharing” for promoting the research data utilization, the diversity of research fields makes it difficult to establish a uniform standard. The promotion of industrial utilization of research data is also important, but it is necessary to draw the value creation process, to understand the stakeholder's concerns and anxieties, and to clarify data handling rules to dispel them in order to utilizing the

research data generated and held by the institutions conducting R&D for industrial purposes. As for the promoting the active disclosure and sharing, and utilization research data, first, incentives for researchers to disclose and share their research data must be increased then case studies that lead to new research results and industrial creation by research data utilization should be organized and systematized.

Universities, Inter-University Research Institute corporations, National Research Institute Corporations, and other research and development organizations that are operated by public funds are expected to return the research results to the society. It is important to set the institutional missions and formulate the data policy that are consistent with their mission, to ask the understanding of this mission from the industry that conducts research activities jointly with these research and development institutions, and to promote returning of research results to the society through the sharing and utilization of research data based on considering that research data is the important research result and these expectations for these R&D institutions.

In order to promote the distribution and utilization of data, besides implementing appropriate data handling rules, falsification of data handling entities as well as data itself must be prevented, the data quality must be controlled, data access must be controlled based on data usage conditions, and data distribution and access history must be recorded and managed. Moreover, the building PFs with those functions is very important. It is also important to promote international data distribution. Therefore, the government has already started the following efforts, but further promotion is required.

- Consideration of a framework to ensure procedural trust in cyberspace

In the "DX promotion sub-working group with secured trust" established in the "Data Strategy Promotion Working Group", by referring to existing international standards of the degree of trust (assurance level) that is considered necessary for transactions and procedures in cyberspace to prevent falsification of data handling entities and data itself, use cases are linked with the standards. We also start examining procedures for the government and local governments and measures to apply it to private services.

- Providing the GIF: Government Interoperability Framework

Under the Digital Government Promotion Standard Guidelines, GIF was formulated and released in March 2022 as a technical system for implementing the society that data utilization and collaboration can be performed smoothly. GIF contains many models necessary for data maintenance such as a data model that defines data items for designing data that is highly scalable and easy to link, clarifying the criteria for data freshness, completeness and accuracy, data quality management framework for improving data quality, and quality evaluation models so that users can freely expand and select as reference models. In the future, we plan to provide an opinion form and training materials as well.

- Providing the data brokerage function (hereinafter referred to as “broker”)

Promote the “broker” through the Data Society Alliance (DSA) with developing the “broker” that has the ability to send data between systems that use different data formats in a way that they can read each other's data, and an authenticated delivery function that connects to the correct destination.
- Building of inter-field data collaborating infrastructure

Develop services of contract management and access history management, support tools of catalog creation and operation, and the connectors to use those services and tools by data providers and data users in the Strategic Innovation Promotion Program (SIP). The building of DATA-EX that provides and operates the necessary tools for inter-field data collaboration in is promoted by DSA.
- PF building of important field

Start the examination to build PFs in some priority fields such as “Health Care, Medical Care, and Nursing Care”, “Education”, “Disaster Prevention”, “Mobility”, “Agriculture, Fisheries, and Food Industry”, “Infrastructure”, and “Smart Cities” for creating new value by utilizing a wide variety of data.
- Examination of data transaction market

In order to ensure fair data transaction and promote data distribution, we start to study how to implement a data transaction market by organizing the requirements for establishing the data transaction market where a fair, neutral and trustworthy operator mediates the transactions of data access rights (the rights to access and use data).
- PDS (Personal Data Store) and information bank utilization

Discuss regarding the possible utilization of PDS and information bank in the utilization of data in the quasi-public sector through data collaboration with local governments and ensuring data portability to facilitate data transfer and use for allowing individuals to accumulate, manage, and utilize personal data at their own will.
- International collaboration to promote DFFT

Under the belief that the free and reliable distribution of data as a source of new value will lead to economic growth, in order to ensure the free and secure distribution of reliable information centered on technology, first, we will collaborate with countries that share the same basic approach and philosophy toward data. The concrete cooperative fields and roadmap were adapted at the G7 Digital and Technology Ministerial Meeting in April 2021, and the action plan to promote DFFT was adapted at the G7 Digital Minister’s Meeting in May 2022 through the international rule-making and discussions related to data distribution.

(Direction of measures)

- Regarding trade secrets and shared data with limited access under the Unfair Competition Prevention Act, examine the appropriate system to meet the needs of the times by the view of strengthening evidence collection procedures, jurisdiction and governing law, and protection of licensees. Furthermore, anti-corruption rules that are a prerequisite for data utilization is examined to take necessary measures.

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

- Conduct public awareness activities through seminars for “AI and Data Contract Guidelines” toward promoting data utilization by Japanese enterprises in Japan and overseas.

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

- Promote appropriate rule implementation with reference to rule implementation guidance in the data collaboration infrastructure built by DATA-EE, PF in important fields, the Digital Garden City Nation Concept (For the time being, the data collaboration infrastructure in the digital implementation type TYPE 2/3 of the Digital Garden City National Concept Promotion Grant). Examine necessary measures to ensure the formulation and operation of appropriate data handling rules with responding to challenges identified during the rule implementation process and operation while updating rule implementation guidance as needed based on findings through response.

(Short-term, Medium-term) (Digital Agency)

- Validate data handling rules in accordance with rule implementation guidance through analysis of use cases related to the demonstration project being conducted to visualize the supply chain by Japanese enterprises, sophisticate logistics, facilitate trade procedures, and diversify production sites. Advance the examination of data sharing and collaboration architecture that contributes to supply chain resilience and sophistication in the Asian region while understanding the benefits and challenges of using the rule implementation guidance appropriately.

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

- In order to manage and utilize research data obtained through public funds, the institutions conducting R&D, such as Universities, Inter-University Research Institute Corporations, and National Research Institute Corporations, create their data policies, and promote to record research data to institutional repositories. At the same time, the metadata assignment to research data is to proceed for making it searchable on the research data infrastructure system.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology,
Cabinet Office, relevant ministries, and agencies)

- Introduce the data management plan (DMP) and a mechanism of metadata assignment connected with the DMP in all new applications for open-type research funds by FY2023. Therefore, while promoting the implementation of advanced data management introduced in the moonshot R&D system as a leading initiative, promote the introduction of a similar mechanism in the next SIP based on the obtained knowledge and use cases. Furthermore, continue to promote concrete and well-known actions in the "Basic Approach to the Management and Utilization of Publicly Funded Research Data".

(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology, relevant ministries, and agencies)

- Compile the basic concept of a framework for securing trust (trust policy) by the end of FY2022 by the study results in "DX promotion sub-working group with secured trust". Conduct a detailed design of the demonstration and trust policy with aiming of implementing the framework early in the 2020s as well.

(Short-term, Medium-term) (Digital Agency, relevant ministries, and agencies)

- Promote the data design and quality assurance with reference to GIF in the data collaboration infrastructure and government systems built in the Digital Garden City National Concept, and proceed the spread of GIF, further utilization of data, and collaboration.

(Short-term, Medium-term) (Digital Agency)

- Support the building of an integrated data collaboration infrastructure by each region through publishing detailed documents for "brokers", providing "brokers" for free from related enterprises and organizations, and offering advice to use "brokers".

(Short-term, Medium-term) (Digital Agency)

- Continue to develop necessary functions for the construction of DATA-EX, organize challenges for stable and sustainable operation and international data distribution, and set the way for actual operations.

(Short-term, Medium-term) (Digital Agency, Cabinet Office)

- Aim for PF implementation in the priority fields for PF building as "Health Care, Medical Care, and Nursing Care", "Education", "Disaster Prevention", "Mobility", "Agriculture, Fisheries, and Food Industry", "Infrastructure", and "Smart Cities" by 2025.

(Short-term, Medium-term) (Digital Agency, relevant ministries and agencies)

- Promote an open API enhancement to obtain the location information and work hours in order to achieving the data collaboration across manufacturers and systems for agricultural machinery based on the "Guidelines for Open API Enhancement in the Agriculture Sector" formulated in 2020. In case of introducing tractors, combine harvesters, and rice transplanters through subsidized projects of the Ministry of Agriculture, Forestry and Fisheries after 2022, it is a requirement of the subsidy to select a manufacturer that has an open API so that the enhancement of open API is promoting continuously.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- In June 2021, a new process chart that clarifies items to be addressed by the end of FY2025 has been established and the initiatives related to each of the data health reform measures will steadily promote in accordance with this process chart along the four pillars of “System Enhancement for viewing of Personal Health Record (PHR: Personal Health Record)”, “Promotion of information utilization in the medical and nursing care fields”, “Promotion of genomic medicine”, and “Infrastructure enhancement (reform of payment institutions)”.

(Short-term, Medium-term) (Ministry of Health, Labour, and Welfare)

- Clarify the implementation direction for the data transaction market by the end of FY2022 and conduct an empirical survey.

(Short-term, Medium-term) (Digital Agency)

- Examine measures for data collaboration between information banks and other data handling businesses by FY2022 and promote the businesses creation using mechanisms like an information bank where individuals can involve in utilization of their own personal data.

(Short-term, Medium-term) (Digital Agency, Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade, and Industry)

- Regarding the promotion of free cross-border data distribution, Japan, as a proponent of Data Free Flow with Trust (DFFT) in response to the digital protectionism, lead the balanced international rules and system formation of “economic growth and innovation”, “security”, and “privacy”. Aim to create concrete results at the G7 meeting in Japan in 2023 for further concrete promotion of DFFT based on past international discussions and initiatives in the G7.

(Short-term, Medium-term) (Digital Agency, Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry, Ministry of Foreign Affairs)

- For international commerce and logistics, in case of considering designation as an area of mutual collaboration, we will consider the challenges for building the platform at the same time.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, Digital Agency, Ministry of Agriculture, Forestry and Fisheries Cabinet Office, Ministry of Land, Infrastructure, Transport and Tourism)

5. Content strategies in the digital age

The progress of digitization in all areas of the economic society is having a major impact on how the IP is utilized. A paradigm shift is progressing worldwide, and various activities are shifting to a digital space without geographical or time restrictions. Economic activities are also shifting from real to virtual and the digital economy is expected to become the core of future growth. In Japan as well, the speed of future economic development will depend to a great extent on how quickly and smoothly we can develop the social environment to meet these challenges.

In this context, one of the areas of particular interest for growth and development in the digital market and space is the field of media contents. Particularly in the content field, digital networking has brought the major changes in the basic structure of content creation, distribution, and consumption in general, and new trends metaverse, blockchain, and NFT utilizations are accelerating the movement toward new content consumption in virtual space and the creation of a digital economic sphere.

Content is the main foundation of Japanese culture and plays a decisive role in strengthening Japan's soft power and digital economic power with enriching people's lives.

In the digital age, interactive exchanges on the Internet have spread, diverse people create, transmit, and consume content as a of self-expression, the content utilization as a communication tool is becoming more common. In other words, contents have become more deeply penetrated people's daily lives, expanding from the passive activity of viewing to the creation, modification, and dissemination of content, and have become an increasingly essential part of people's lives. Building an ecosystem that activates and accelerates the virtuous cycle of content usage and creation is also important in promoting the creativity of all people and expanding new value creations through its fusion.

On the other hand, in the economic realm, contents have become even more important in various business fields and will combine value as a key of "intermediate goods" in the digital economy recently.

The progress of digitization has promoted the expansion of the potential market for the content businesses and the borderless market is creating an unprecedented competitive environment at the same time. The global DX development in the COVID-19 is spurring such trends and accelerating new content consumption and other trends in virtual space, such as metaverse and NFT (Non-Fungible Token). Under these circumstances, it is necessary to advance the structural transformation of the media content industry that accurately grasps the changes in the digital age, and to build the ecosystem for creating high-quality contents with incorporating the power of diverse creative activities by individuals in order for Japan to producing contents loved by the world sustainably.

In addition, during the progress of digitization and networking, infringements against the copyrights of Japanese manga, anime, movies, and other content have expanded beyond national borders, and the problem of piracy by foreign pirate sites is also becoming more serious.

In response to these issues and other initiatives to protect and support Japan's content creation ecosystem, it is necessary to work continuously.

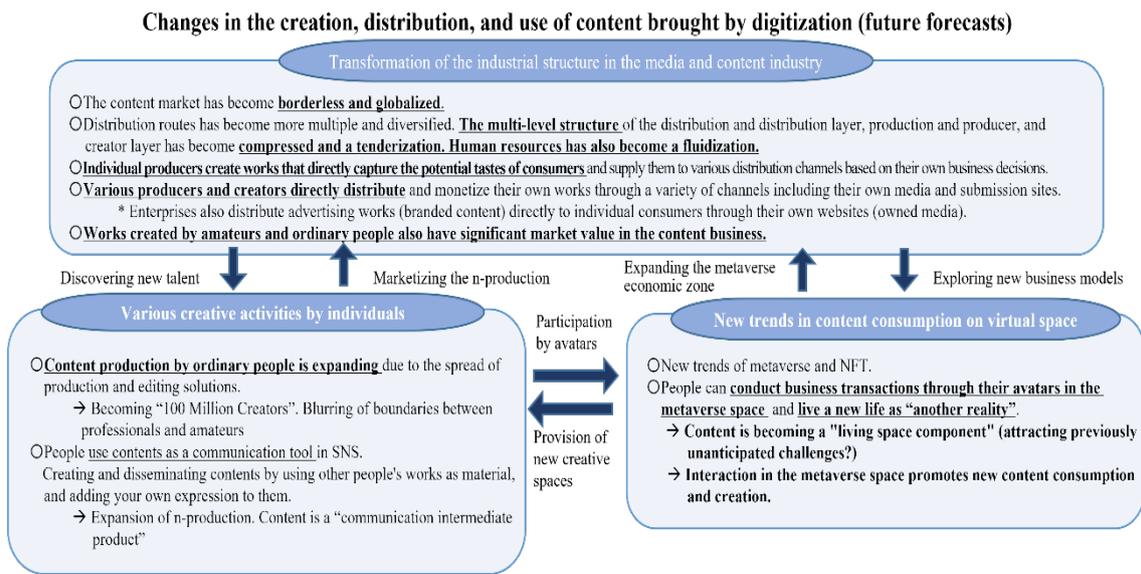


Figure 16: Structural changes in the digital age and the creation, distribution, and use of content

(1) Content strategies in anticipation of WEB3.0 age

(Current situation and challenges)

<Progress of change during the COVID-19>

More than two years have passed since the global spread of the COVID-19. In the content fields, in particular, the event and entertainment business were forced to virtually cease operations for an extended period of time. Although restrictions on events have been eased to a significant degree, but the impact continues, and future trends remain unpredictable. Continued strong support for the event and entertainment fields is required.

Meanwhile, during this time, various changes have progressed in the content fields while the movement of people has been greatly restricted. In the entertainment field, that was asked to refrain from live performances, there was a growing movement to find a way to take advantage of online opportunities with online concerts, archived broadcasts of performing arts, live broadcasts by DJs, and video postings by individual entertainers. These virtual lives are distributed globally including archived broadcasts and it creates the new successful model by generating unprecedented numbers of

viewers and high profits collaborated with real events after the easing of restrictions.

In addition, the game space has become a place for people to interact, various virtual events have been voluntarily held by users, and companies have opened their own stores in the game. Furthermore, amidst the demand for staying at home, content distribution services by global platform providers are growing and expanding their market share in Japan.

These changes are irreversible as they follow the trends of the digital age, it evokes further changes even in the post-COVID, and it is expected that the creation, distribution, and use of content itself will change significantly.

<Competitive environment faced by the media and content industry and expansion into the global market>

Looking at the distribution channels of contents, contents in specific fields such as broadcasting, music, and books are not tied to specific media, and it is possible to select a variety of media including online distribution. These changes will improve user convenience, expand the content market, promote borderless and globalization of the market, and expand opportunities for good contents to be "selling globally".

These changes, however, have also encouraged foreign businesses to enter the Japanese market and create a new competitive environment. Particularly at the content distribution stage, the dominance of global distribution platforms is increasing. These platformers are also using their massive capital to lock in contents and production resources. While competing with existing domestic media, they are also potential partners for the creators and producers in terms of being a rich source of production funding.

In light of these circumstances, Japan's media and content industries are being forced to undergo structural reforms, including changes in the industrial structure, in order to respond to the severe competitive environment that accompanies changes in the digital age. When the distribution routes are diversifying, competition between media is intensifying, and contents and production resources are scrambling, the central challenges will be to restore and improve the global competitiveness and profitability of the production and production layer that produces unique content backed by Japanese culture.

It is important to return to the basics of directly grasping the latent preferences of consumers and eliciting emotion and empathy so that rather than creating works that reflect the intentions of advertising sponsors as seen in some video productions, it is required to create works that aim to provide value in line with universal themes that are globally accepted. On top of that, individual producers are expected to diversify their earnings by holding the IP on their own and providing contents for various distribution channels and IP utilization. Through these reforms, it is expected that multi-stage transaction structures of the distribution and distribution layer, the production and production layer, and the creator layer may become more compact and flexible, and human resources will become more fluid.

While taking the above into consideration, it is necessary to aim for shifting to a business model based on global expansion, to develop into a production system and strengthening sales and negotiation capabilities, and to enhance the human resources to support these and the environment for the creation of works that will “selling globally”.

<Promotion of individual creative activities and expansion of the creator's base>

The relationship between individuals and content has been changing. Due to the spread of digital technology, for example, the transmission of content as a communication tool on SNS has become common, and amateurs and ordinary people are also casually creating and transmitting content as part of their lives. In most cases, individuals and certain groups enjoy creating and consuming content, but some of these activities have led to the emergence of professional creators who have jumped into the business, and it plays a role in fostering new leaders of culture and industry. These creators produce works planned by individuals themselves using production and editing software and disseminate through distribution platforms and posting sites. In many cases, they are working with their own production and transmission methods that are not bound by existing systems, and how they can support and expand their playing field in the new content ecosystem becomes important challenges.

At the same time, under these circumstances, the relationship between the media content industry and users is also changing. While mutual exchange through the Internet is spreading in various fields, the business model of the media content industry is not limited to the one-sided supply of works through the media, models are emerging that emphasize two-way dialogue between sender and receiver, and co-creation between creators and fan communities, and provide these opportunities to increase revenue.

The transition from a mass media-driven age to a digital platform-driven age while it is assumed that giant platformers will continue to have strong dominance. In the advent of the Web 3.0 age, it has been pointed out that the dominance of these platforms will be lifted down and content production led by creators and producers will expand. In the content market, it is expected that businesses will not only deliver works selected by media and platforms through marketing and other means, but also develop further in the future by directly connecting creators and curators with fan communities that added value.

At the same time, the fan community is important for the human resource development of creators who will play a key role in the foundation of this industrial structure. The fan community expands the base of creators and serves as a place for discovering and nurturing talents who will play a leading role in the relevant field, and business operators are also actively making initiatives to form the venue.

In building a creation ecosystem, it is essential to create an environment that human resources who produce high quality content through various creative activities can be continuously born and nurtured. Based on these considerations, in order to promote diverse creative activities by individuals and expand the base of creators, it is required to actively introduce a mechanism to enable monetization of UGC, to activate fan communities, and to promote initiatives to foster and support creators.

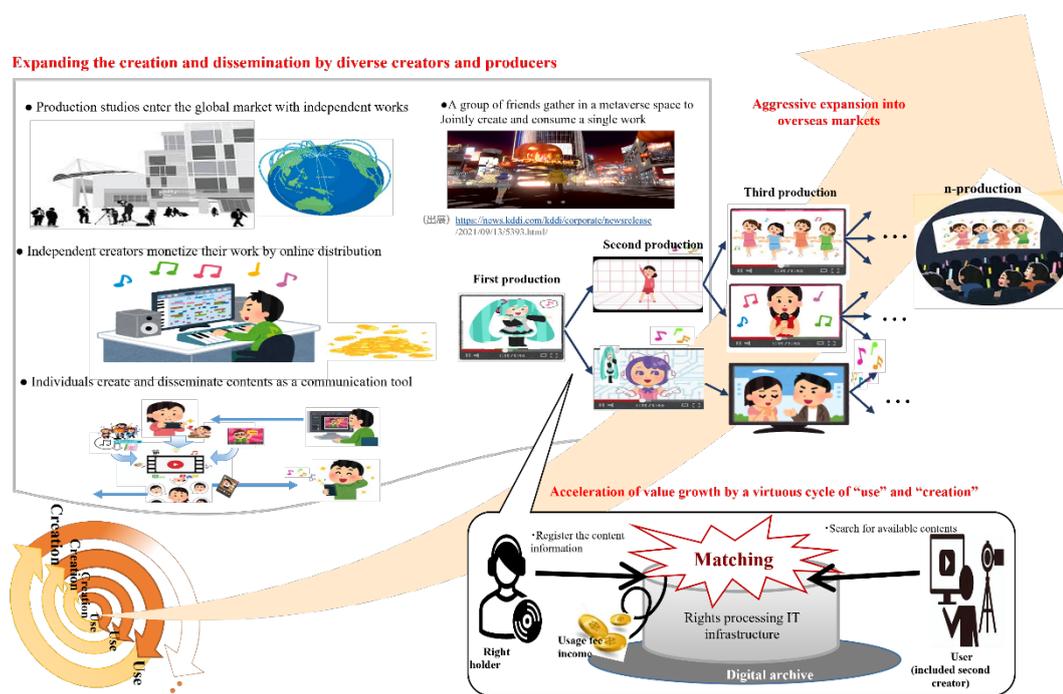


Figure 17: Activation of the content creation ecosystem (image)

<Response to new content consumption in the virtual space>

Furthermore, as we enter the Web 3.0 age, the metaverse and NFT utilization are opening up new possibilities for the creation, distribution, and use of content. It has been pointed out that the development of metaverse and NFT is to provide users with an unprecedented way to enjoy contents, to incorporate users into the consumption economic zone, to enables a new form of content distribution that does not depend on existing platforms and could bring game-changing opportunities to contents business Metaverse is a virtual space service on the Internet that you can experience with avatars.

The space itself is composed of contents, and it is expanding by incorporating various areas of

people's activities. For example, even in the fields of games and character businesses, there is a growing movement to provide new services that encourage interaction and co-creation between creators and users or between users by establishing a platform that incorporates the metaverse. In response to the COVID-19, a number of live events have been developed that people participate with their avatars, and events on the metaverse are already in the establishment phase. Some of these platforms allow users to purchase and create various content and items as well as sell them to other users. In conjunction with transactions of various services within the platform, a unique economic sphere is being formed.

In the world of the metaverse, people are able to achieve self-actualization beyond the constraints of the real world. In order to become who, you want to be through avatars and make your dreams come true, it is assumed that the consumption of various goods that has been done in the real space will be transferred to the metaverse space, and new content consumption and transactions for that purpose will expand. Virtual objects, including avatar costumes, can be designed with an extremely high degree of freedom without physical restrictions, and it is predicted that designers from various fields will become content creators and fuse together to create new value. Furthermore, in a borderless metaverse space, the fusion of different cultures will accelerate, and the new cultural trends created there will be fed back into the real world, and lead to cultural and economic development in the real areas.

On the other hand, the development of the metaverse has also given rise to new challenges over the rights inside and outside of the metaverse space regarding the digital objects "held" in virtual space and the act of trading in them, and various other acts performed via Avatar, their legal status and the legal responsibilities of the businesses that provide the space. For example, some challenges have already been discussed as for the protection of avatars' portrait and publicity rights and the design of digital objects or infringement of others' IP rights by these. Initiatives are also being made to comply with the terms of use of related platforms and to formulate guidelines by organizations of such as businesses.

Blockchain, the core technology of Web 3.0, enables peer-to-peer transactions between users so that Blockchain-based transactions are highly resistant to tampering, and transaction histories can be easily traced, making it possible to prove the authenticity of transactions. Furthermore, the technology also makes it possible to return a certain amount of compensation (royalty payment) to the original right holder at the time of secondary distribution.

In particular to the content sector, the NFT is a unique digital token (voucher) issued on the blockchain that can be used to sell rare digital content and products with this content, business models have been created to add value by enabling secondary distribution (resale) that are linked to the economic sphere of the metaverse and showing signs of future development. The emergence of NFT also opens up the possibility that ownership and use of digital items that have traditionally been dependent on specific platforms enables cross-fertilization across multiple platforms.

The NFT technology does not guarantee that the content associated with the NFT is regular products in the first place. It should be noted that there is also a problem that many non-regular products that have not obtained the permission of the right holders are distributed in the market.

As described above, the development of metaverse and NFT is facilitating the creation of new content businesses. In the highly competitive environment surrounding the media content industry, in step with improving productivity through DX, it is essential to enhance profitability by adding higher value to content and diversifying monetization methods and utilization of Metaverse and NFT can be an effective measure for that.

Furthermore, some have pointed out that content is an effective weapon, especially in attracting customers to new economic zones. It is said that Japan, with its strong content (IP), including past works such as anime, manga, and games, and the characters that color them, has the potential to take an advantageous position in this type of business. With the increasing dominance of giant global platform companies, it is expected that this trend could be an opportunity for Japan's media content industry to turn the tide.

Additionally, Metaverse and NFT have a high affinity with the fan community, and by using them, channels that directly connect creators and users are further strengthened, and it is expected that the revitalization of the content ecosystem led by creators and curators will be further promoted. Based on the above, it is necessary to support the development of new businesses and content ecosystems in the Web 3.0 age while paying attention to the appropriate return of compensation to rights holders and the protection of users.

Metaverse and NFT are still in the developing stage, and the speed of progress is rapid, so there are many aspects that make it difficult to predict their future trends. If the legal challenges surrounding these issues remain unclear, they will pose business risks and become a hindrance to the entry of many businesses. On the other hand, there is a strong possibility that developments beyond expectations and unanticipated challenges will arise in this area in the future. Some have requested for a cautious approach and arguing that the immediate establishment of a legal framework in this area may hinder new business possibilities. These challenges are being addressed by the private sectors through soft-law measures. The government will work closely with private sectors to identify issues and organize points of discussion in line with the actual situation and proceed with consideration of necessary responses. Strongly aware that the challenge in a virtual space without borders will require international rule formation led by the private sector and the goal should be to lead international Initiatives to take the lead the discussion.

(Direction of measures)

- Establish a forum for experts and others to consider to respond to new legal challenges posed by the metaverse over the contents. Identify challenges and issues, and discuss necessary rules and regulations including soft-law responses, with the relevant ministries and agencies and private sector working as one.

(Short-term, Medium-term) (Cabinet Office, Ministry of Economy, Trade and Industry, Ministry of Education, Culture, Sports, Science and Technology, relevant ministries and agencies)

- Exam the necessary measures by public and private sectors working together in response to the challenges of protecting the rights of content holders and the protection of users for NFT utilization in the content fields.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, Ministry of Education, Culture, Sports, Science and Technology, Cabinet Office)

- Consider to create collection of examples of appropriate use, enhance of training opportunities related to copyright, and promote and educate in everyday situations of use of copyrighted works for a wide range of age groups with addressing to raise awareness and educate young people who frequently use SNS for furthering enhance public awareness and education on copyright because all citizens are involved in copyright on a daily basis due to the spread of social media.

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

- Build a new revenue model for the entire industry for revitalizing of fan community by disseminating contents with diversified revenue channels including virtual live with creating contents that utilize technology to enhances the customer's experience.

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

- Build the ecosystem for the sustainable development of the content industry and promote a healthy business environment for content creators by promoting the development and demonstrating of systems that contribute to streamlining the content production and distribution process, and improving productivity of content production and promoting the distribution from the perspective of the entire supply chain.

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

- Aim to create a new distribution market for content for promoting the utilization of video content that contributes to corporate branding by supporting the business of creating videos with a story (branded content) that evokes customer sympathy for the company's attitude and philosophy for branding of companies and local governments.

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

- Support freelance creators and others who are not necessarily familiar with copyright through the provision of the "Copyright Contract Preparation Support System" that provides a standard model for contracts in order to support agreements for the use of copyrighted works.

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

- Promote initiatives to improve the business environment for people involved in culture and the arts, including freelance artists by creation of a contract template for the purpose of building appropriate contractual relationships in the fields of culture and arts, and conducting its public awareness.

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

- Conduct a compliance survey of guidelines with appropriate transactions in content creation and disseminating of various guidelines and support measures that contribute to improving the working environment. As for the film industry, establish a mechanism for a certification system to ensure proper trade, and conduct a survey on the implementation status of certification and labeling by the producers.

(Short-term, Medium-term) (Cabinet Secretariat (Secretariat for New Capitalism), Japan Fair Trade Commission, Ministry of Health, Labour and Welfare, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry)

- Train of educational programs and management personnel that contribute to improving the skills of creators who support the content industry and staff involved in production and enhance of practical training opportunities in the field, solve the local challenges utilizing game skills and development of DX human resources who contribute to joint digital development with enterprises, and train personnel capable of raising funds and managing content production for overseas markets.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)

- Promote to collaborate and utilize with domestic and foreign human resources and organizations that understand Japanese culture for creating a system that supports everything from human resource discovery to overseas promotion for creating a system to support everything from finding talent to promoting the company overseas in order to promote and develop the appeal of Japanese culture and art to the world for developing top-level human resources globally. Promote the global development of culture-related businesses of as print and music in cooperation with business leaders and operators. Consider further support measures such as collaboration with related organizations for overseas development of copyrighted works other than supporting for increasing profits from the use of copyrighted works overseas through function strengthening of the centralized copyright management organization in the Asia-Pacific region by a contribution project to the World Intellectual Property Organization (WIPO) because the environment for overseas transmission of content has progressed and the opportunity to enter the overseas content market has arrived due to the diversification of distribution channels accompanying digitization.

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

- Support the promotion and localization (translation) of content for overseas development in order to capture growing overseas demand and expand the market for content originating from Japan.

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

- Promote understanding of Japan, foster a sense of pro-Japan sentiment, and lay the groundwork for future commercial overseas expansion by providing broadcast content such as Japanese dramas, animation, documentaries, movies, variety shows for free of charge in countries and regions mainly where Japanese content is not being broadcast (South Asia, Oceania, Latin America, the Middle East, Eastern Europe, Africa, etc.), and broadcasting and distribution of programs in those countries and regions.

(Short-term, Medium-term) (Ministry of Foreign Affairs)

- Promote overseas development of broadcast content utilizing DX effectively with collaborating with local enterprises and human resources of Broadcast Program Export Association of Japan (BEAJ), broadcasters, relevant ministries and agencies, local governments in light of the diversification of the global viewing environment including the video distribution growth.

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

- Provide necessary environmental improvements to exam by relevant ministries and agencies regarding the positioning in relevant institutional and policy areas for the sound development of the e-sports industry.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, relevant ministries and agencies)

- Conduct the value verification of advertising in esports and work for the Awareness and thoroughness of its results regarding the Advertising targeted at Generation Z that has an affinity with e-sports and will be at the center of global trends in the future in order to facilitate the entry of enterprises in the e-sports field.

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

(2) Reforming of copy right systems and related policies in response to the digital age

(Current situation and challenges)

The environment changes in the digital age, as seen in (1) has become an opportunity for industrial development to stimulate people's diverse creative activities, encourage them to exercise their individual creativity, and provide new market creation opportunities for the media content industry. It is also an opportunity to expand mutual benefits through connections with diverse users under the initiative of creators.

For example, in the lives of individuals, secondary creation using other people's content is becoming more widely practiced as part of communication through the Internet. From now on, more content will be uploaded on the metaverse space, with a variety of content being uploaded to events organized by users and it is also expected that NFT transactions with linked content and peer-to-peer transactions will become more widespread, but these activities would require a reasonable rights processing response.

In the content business with the advance of digitization, multifaceted content use is expanding including distribution of content through a variety of channels, cross-disciplinary development of a single content (IP), and fusion of content across disciplines. It is conceivable that secondary use of copyrighted works involving numerous rights holders and the creation of derivative content will be undertaken multidirectionally and the cost required for rights processing for that purpose may increase.

In addition to the Web 3.0 age, creator-led and producer-led content production is expected to expand. In order for diverse production companies and creator groups to produce high-quality works and for the development of the content industry, it is desirable that even small and medium-sized businesses and individual creators can smoothly deal with the handling of a huge and diverse number of copyrights for the development of the content industry.

In light of this situation, it is necessary to promote accelerated growth of the content industry in response to the digital age and to expand the compensation return to creators with creating and using content by individuals peacefully in order to maximize the socioeconomic opportunities presented by digitization by reducing the procedural costs and time costs related to copyright rights processing.

Regarding the right process of copyrights, the Council for Cultural Affairs is considering a simple and centralized rights handling policy in response to the "Intellectual Property Promotion Plan 2021". The Proposals have been made to expedite and facilitate the rights process and it is required to promptly materialize the reform of the system including institutional reforms by establishment of a centralized point of contact that cuts across types and fields of copyrighted works, searching for copyright holders using a cross-disciplinary rights information database, and creating a new rights handling mechanism when the copyright holder is unknown or the copyright holder cannot be contacted due to the lack of a manifestation of intention necessary for rights processing.

Furthermore, in light of the demands for speed in the digital age, we should aim to make it possible to complete the procedures for copyright rights processing digitally as much as possible.³

These are expected to significantly reduce procedural and time costs, and dramatically accelerate the proliferation of value through the cycle of "creation" and "use" of content. In Japan, rich in cultural resources, the establishment of a rights handling mechanism appropriate for the digital age is essential challenges in order to enable diverse individuals and players to make maximum use of these resources and to encourage the fusion of various ideas and the co-creation of content.

³ In the "Priority Plan for the Realization of a Digital Society" approved by the Cabinet in December 2021, the "Digital Completion and Automation Principle" is one of the five principles for structural reform to realize a digital society.

Based on the above, in order to respond to the speed of the digital age and accelerate the cycle of "creation" and "use" of content, it is necessary to promote the necessary reforms of the copyright system and policies from the perspective of legal systems and operations.

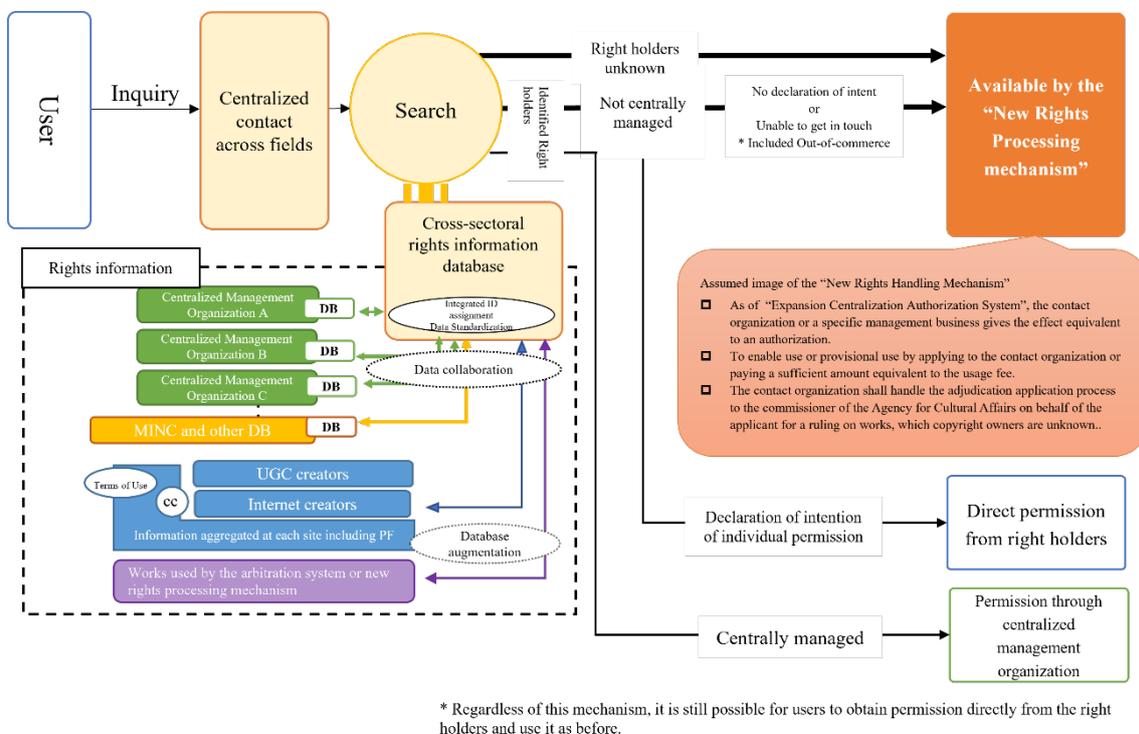


Figure 18: Rights processing and database image utilizing a centralized contact organization that cuts across fields

(Direction of measures)

- Create a work schedule for establishing a copyright system in the digital age.
 - (Short-term, Medium-term) (Cabinet Office, Digital Agency, Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry)
- The Agency for Cultural Affairs will realize a system that enables simple and centralized rights handling for various usage scenarios based on the extended centralized licensing system for a vast and diverse range of works including past content, UGC, works with unknown rights holders, and other works that are not centrally managed by a copyright management business in order to facilitate the use of copyrighted works and return appropriate compensation to rights holders for the vast and varied works, At that time, Aiming for procedures to be completed centrally in digital form to meet the demands of speed in the digital age with the cooperation of Cabinet Office, Ministry of Economy, Trade and Industry, Ministry of Internal Affairs and Communications, and the Digital Agency as follows; (1) realization of a new rights handling mechanism based on an expanded centralized licensing system with a centralized contact organization across fields, (2) examination of the construction of a cross-sectoral rights information database, (3) promotion of centralized management, (4) Improvement of the current

adjudication system for works with unknown copyright holders (speeding up and simplifying procedures), (5) examine specific measures to promote the use of digital content of UGC, submit a bill to amend the Copyright Act to the ordinary Diet session of 2023, and take necessary measures.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, Cabinet Office, Ministry of Economy, Trade and Industry, Ministry of Internal Affairs and Communications, Digital Agency)

- The Agency for Cultural Affairs will examine how to establish a function that enables the confirmation of rights information and the declaration of intent regarding usage licenses (including the presentation of usage methods), and reach a conclusion by the end of 2022 with the cooperation of Cabinet Office, Ministry of Economy, Trade and Industry, Ministry of Internal Affairs and Communications, and the Digital Agency after examination of the business model for sustainable viability in addition to connecting to databases in all fields of need and facilitating the registration of content that is not registered in existing databases such as net creators, online distribution-only contents, and works that are not centrally managed as targeted works in all fields with needs. At the same time, the relevant ministries and agencies will examine the collaboration with databases managed by UGC-related platforms in addition to the collaboration with databases in each field and under a cross-ministerial review system. Furthermore, the committee will examine the enhancement of existing databases, unification of rights holders' information, standardization of formats, and rules regarding IDs and codes necessary for linking databases and reach a conclusion by the end of 2023.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry, Cabinet Office, Ministry of Internal Affairs and Communications, Digital Agency)

- Exam a specific mechanism for new rights processing by a centralized cross-sectoral contact organization or specific management entity with the aiming of completing procedures digitally and centrally, and reach a conclusion by the end of 2022. At that time, exam the expanded centralized licensing and arbitration systems for works with unknown authors by the copyright holder including (1) permission to use and its conditions, (2) declaration of intent to opt out, (3) understanding the status of utilization and compensation return, (4) individual licensing procedures, and (5) when there is no copyright information in the database and centrally managed, and the copyright owner is unknown even in the search by the contact organization, When there is no declaration of intent and it is unreachable, and when there is no response after trying to contact, Expanded collective licensing and arbitration system for works with unknown authors when there is no response.

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

- Discuss the cooperation system and role-sharing framework for telecom-related businesses and reach a conclusion within 2022 while referring to Western systems in order to promote the implementation of a simplified and centralized rights handling system, including a new rights handling mechanism with a cross-sectoral centralized contact organization.

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

- Proceed with consideration based on the understanding of the actual situation regarding the use of

copyrighted works on content distribution platforms and posting sites and the protection of rights holders' interests for new compensation return measures for the digital age and support and training measures for creators that proper compensation is returned to creators leading to the reproduction of content. Execute necessary measures as soon as possible based on the conclusion of the examination by the relevant ministries and agencies regarding the identification of specific target equipment according to the actual situation of private recording as a transitional measure until the new compensation measures are realized for a private recording compensation system.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, Cabinet Office, Ministry of Internal Affairs and Communications, Digital Agency Ministry of Economy, Trade and Industry)

(3) Realization of a digital archive society

(Current situation and challenges)

Digital archives pass on records of society's knowledge and cultural, historical resources to future generations, and serve as a platform for sharing data and content called a source of innovation as well as playing a role in supporting intellectual activities in all aspects of society. The promotion of "building and sharing" and "utilization" of digital archives is an important initiative not only for the creation of knowledge and the preservation, transmission, and development of culture, but also for the promotion of secondary use of contents and the dissemination of information domestically and internationally. From this perspective, it is necessary to position digital archive policy as one of the important pillars of the content strategy in the digital age, and to promote it in collaboration with various related policies.

The goal of a "digital archiving society" is to share various data and contents generated daily with easy access for everyone, to enhance the secondary condition that can be utilized on a daily basis, and to realize a society that everyone can create new content by the digital archive.

While the potential demand for various digital archiving resources has become apparent as a result of the recent new the COVID-19, challenges have also highlighted such as the lack of sufficient use of digital technology on the front lines of education and public services.

In light of these challenges, the 2021 Partial Revision of the Copyright Law has included restrictions rights provisions related to the internet transmission of out-of-print materials by the National Diet Library. The partial revision of the Museum Law has also enacted in the ordinary session of the Diet in 2022 clearly defined the business related to the digital archiving of museum materials as a museum business.

Based on these developments, it is expected that a variety of digital contents will be utilized more and more in various fields such as education, academia, research, tourism, regional revitalization, disaster prevention, healthcare, and business.

As the cross-sectoral platform for the digital archive utilization in Japan, the official version of "Japan Search" that provides functions for searching, browsing, and utilizing metadata of diverse content in one place, was announced in 2020. At the Practitioner Review Committee on Digital Archives, in order for

Japan Search to become the core of digital archive activities in various fields and to further promote the expansion and utilization of digital content, the "Japan Search Strategic Policy 2021-2025" was formulated in September 2021, based on this, the "Japan Search Action Plan 2021-2025" formulated in April 2022.

The further promotion of openness and utilization of archives, human resource development and awareness-raising, and support for archiving institutions is needed in order to realize a prosperous and creative society in which digital archives are integrated into everyday life based on these strategies and plans while working to further enhance digital content in each field.

In the relation to the copyright system, in the "Interim Summary" of the Council for Cultural Affairs Copyright Subcommittee published in December 2021, digital archiving and distribution of past broadcast programs and stage performances were presented as one of the possible usage scenarios for the simple and centralized rights processing system that is being newly aimed for realization. On the other hand, in the same "interim summary", it is said that collaboration with Japan Search may be considered in building a cross-sectoral rights information database for searching copyright holders so that it is necessary to proceed with the necessary considerations regarding collaboration between cross-sectoral rights information databases, Japan Search, and digital archives from the perspective of future promoting the digital archive utilization.

(Direction of measures)

- Expand the further collaboration with archive institutions including expansion of partners for comprehensive navigation of various digital information resources in the Japan Search that is a platform for searching, browsing, and utilizing information on a variety of Japanese content. In particular, promote the collaboration with local cultural resources and other digital archives in unexplored areas.

(Short-term, Medium-term) (Cabinet Office, National Diet Library⁴, relevant ministries)

- Build a utilization model that utilizes Japan Search's collaborative content and work to expand opportunities for utilization and to strengthen overseas communication, such as through multilingualization in the various fields and themes such as education, academia/research, and regional revitalization. Promote easy-to-understand display of secondary use conditions for those contents by each organization for promoting the efficient utilization of digital content held by Japan Search collaborating archival institutions.

(Short-term, Medium-term) (Cabinet Office, National Diet Library, relevant ministries)

- Exam by the Digital Archive Japan Promotion Committee and Practitioner Review Committee and

⁴ Although the National Diet Library is an institution belonging to the legislative branch, policies related to digital archives are undertaken by the entire nation and the library plays an important role.

reflect to concrete initiatives regarding challenges of the building and utilization of digital archives including measures to develop Japan Search as a digital archive utilization infrastructure.

(Short-term, Medium-term) (Cabinet Office, National Diet Library, relevant ministries)

- Exam by the Practitioner Review Committee and take necessary measures to enable the required collaboration by Providing a cross-sectoral rights information database with a portion of content metadata related to digital archives held by Japan Search affiliated archive institutions regarding the collaboration between the cross-sectoral right information database related to copyright and Japan Search.

(Short-term, Medium-term) (Cabinet Office, National Diet Library, relevant ministries)

- Promote future utilization for what is possible by Utilizing the digitally archived content for online distribution and monetizing through overseas expansion with further expansion and publishment of the digital contents in each field and striving for openness to allow free secondary use of digital content.

(Short-term, Medium-term) (Cabinet Office, Digital Agency, Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism, National Diet Library)

- Promote the improvement of information centers, create a place to disseminate contents in cooperation with Japan Search, and promote mutual guidance of users with supporting the preservation and utilization of manga, anime, and game media artworks at various research institutions.

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

- Promote the preparations steadily for smooth implementation including discussions between parties regarding detailed operations and preparation of guidelines based on the enforcement within two years after the promulgation of the revised Copyright Act of 2021 regarding the revision of the provisions on limitation of rights related to libraries. Promote the necessary examinations while giving enough consideration to the protection of the right holders' interests based on the survey results and research on the actual use of copyrighted works and usage needs among researchers in Japan in addition to the creation of a provision restricting rights for research purposes.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, National Diet Library)

(4) Strengthening measures against pirated and counterfeit products

(Current situation and challenges)

When the spread of COVID-19 is prolonged and people are spending more time indoors, the number of accesses to pirated sites has increased significantly. Especially in recent years, the damage caused by gigantic piracy websites that are thought to be based overseas has become more serious and the scale of damage is said to exceed the heyday of "Manga-mura" that was once a problem.

Taking appropriate measures against piracy is to compose an important element for building a content

ecosystem that is making it possible for creators and other content industry workers to receive compensation through the consumption of regular versions by users. DX in the content field is accelerating with the use of e-book and video distribution services grows because of the demand for stay-at-home due to the COVID-19. The anti-piracy measures need to be addressed as an important government issue in order for creators and content providers to enjoy these benefits to the maximum extent possible.

In order to tackle piracy countermeasures as integrated, the government has compiled the "Comprehensive Countermeasures and work schedule Against Piracy on the Internet" (formulated in October 2019 and updated in April 2021) and verified its effects while promoting various initiatives.

Major initiatives including measures against reach sites and illegal downloading of infringing content due to the revision of the Copyright Act in 2020 have been in effect since October 2020 and January 2021, respectively and it has a certain effect on access deterrence for closing the large-scale leech sites and download-type pirated sites and arresting of malicious reach sites.

Regarding the originator disclosures, a partial amendment law to the Provider Liability Limitation Law that creates a new court procedure (non-contentious procedure) has passed in 2021 and it is to take effect by the fall of this year. According to this, in particular, it is expected that the procedures for requesting the disclosure of sender information to overseas companies will be simplified, and more rapid disclosure will be possible.

In addition, strengthening international collaboration and enforcement will become even more important in response to the increasing damage caused by overseas pirate sites. For particularly malicious sites, anti-piracy teams of publishers are working to identify the site operators by collecting information utilizing court evidence collection procedures in other countries, and are taking legal measures of filing criminal complaints, and the government is also promoting support for these initiatives. As a result of these initiatives, while there have been some successes that have led to the closure of some large piracy sites, successor sites have been launched soon shortly after these closures.

The further strengthen countermeasures are required with promoting initiatives to expose operators of pirated websites including preventing the influx of users to succeeding sites. As for examining countermeasures, while paying attention to aspects of the social costs required for their implementation and considering the overall structure that makes up the operation of pirated sites, it is important to pursue approaches that can more efficiently and effectively curb piracy damages.

In the fight against piracy and counterfeiting, with aiming to strengthen initiatives in collaboration with the private sectors, relevant ministries and agencies need to work together to implement countermeasures.

(Direction of measures)

- Proceed the necessary initiatives in collaboration with relevant ministries based on the comprehensive menu of measures and work schedule against Internet piracy updated in April 2021 in order to prevent the spread of damage caused by piracy on the internet, conduct a series of reviews of the damage situation and the effectiveness of countermeasures, and promote future initiatives.

(Short-term, Medium-term) (Cabinet Office, National Police Agency, Ministry of Internal Affairs and Communications, Ministry of Justice, Ministry of Foreign Affairs, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)

- Promote international investigative cooperation toward the detection of operators of overseas pirate sites while utilizing bilateral consultations and international conferences and encouraging to strengthen anti-piracy measures. Strengthen international collaboration and enforcement by promoting initiatives to conduct digital forensic investigations in collaboration with the private sectors. Moreover, exam the further support measures including expansion of support for the exercise of rights by domestic right holders in response to cross-border copyright infringements.

(Short-term, Medium-term) (Cabinet Office, National Police Agency, Ministry of Internal Affairs and Communications, Ministry of Justice, Ministry of Foreign Affairs, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry)

- Facilitate cooperation between those private operators and rights holders for ensuring that necessary countermeasures are taken regarding the operation of pirated sites and the services of various private businesses used to access including suspension of service provision to pirated sites by CDN service providers and deletion or suppression of display of search results related to piracy by search site operators.

(Short-term, Medium-term) (Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry)

- Promote awareness activities by relevant ministries and agencies and relevant institutions in order to ensuring that the public's normative consciousness is rooted in not tolerating pirated or counterfeit products containing infringing content because the viewer unconsciously watches it and benefits the infringer, especially for infringing content in addition to not purchasing pirated or counterfeit products.

(Short-term, Medium-term) (National Police Agency, Consumer Affairs Agency, Ministry of Internal Affairs and Communications, Ministry of Finance, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Agriculture, Forestry and Fisheries, Ministry of Economy, Trade and Industry)

- Continue the strict control of counterfeits and pirated products imported under disguise of personal use in response to coping with increasing inflow of counterfeit and pirated products due to the development of cross-border e-commerce. Take necessary measures to ensure effective waterfront enforcement with striving for sufficient publicity that is not to inflict unforeseen damage on bona fide importers toward the implementation of the amended law by the fall of 2022 because counterfeit goods brought into Japan by mail are subject to crackdown by customs by the revised Trademark Law, Design Law, and Customs Law. Exam other IP rights as necessary.

(Short-term, Medium-term) (Ministry of Finance, Ministry of Economy, Trade and Industry, Ministry of Education, Culture, Sports, Science and Technology)

(5) Support for film productions through the improvements of filming environments

Video works of movies and broadcast programs are to become a cornerstone of content as a comprehensive art that includes various elements such as original manga, novels, and music and it also plays a major role in realizing new values as soft power to deepen empathy with Japanese history, culture, and society for viewers outside of Japan.

In particular, it has pointed out that the location filming of foreign video works contributes to the improvement of the production environment for strengthening the capacity of production sites to improve production-related technical capabilities and planning capabilities with an anticipated international expansion and promoting business practices consistent with international standards for production accounting and written delivery of contracts. In addition, large-scale video works that are released in many countries have high international appeal, and inbound effects through location tourism triggered by video works are expected.

Initiatives have been made to improve the location filming environment, but it has been pointed out that it is necessary to consider drastic support measures beyond these through holding of "Public-Private Liaison Conference on Improving the Environment for Location Filming", formulating "Guidelines for the Smooth Implementation of Location Filming" and conducting surveys under the constraints of the COVID-19.

Various measures have been introduced in other countries including financial support systems and reception support offices, and competition to attract filming locations is intensifying in each country. These effects such as increasing in employment of video-related industries, income increasing, human resource development, advanced production and management, increasing in tourists, and revitalizing of local economy may be expected in Japan, but it is pointed out that the lack of a support system including financial support has resulted in a number of missed opportunities to attract location filming as the effect of attracting filming on location in these countries.

The establishment of global SVOD services and the behavioral changes caused by the COVID-19 enabled the mass and direct delivery of video works to a global audience. This has led to an increase in global demand for more unique and higher quality video works. These global trends are expanding opportunities to bring Japan's natural and cultural attractions directly to viewers around the world through video works originating in Japan and foreign video works filmed in Japan so that an environment must be built to produce video works of global standards that conform to the digital age for taking advantage of these opportunities. In order to realize these goals, filming location enticements should be positioned as a catalyst for strengthening the international competitiveness of the domestic imaging industry, expanding inbound tourism, and revitalizing the local economy. It is important to proceed the initiatives regarding the filming location enticement measures continuously including providing incentive funds with improving filming environment while verifying the effects of film location enticements.

(Direction of measures)

- Follow up and revise the guidelines that summarize the matters to be addressed by FCs, license holders, and producers as necessary, and promote further penetration and mutual understanding among related parties for facilitating and promoting location enticements and location filming. Strengthen further of consolidation of information on filming locations throughout Japan, introduction of franchises in each region, sharing of information on permits and licenses, and dissemination of such information both domestically and internationally with improving including operational aspects of licensing.

(Short-term, Medium-term) (Cabinet Office, National Police Agency, Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Land, Infrastructure, Transport and Tourism)

- Proceed with a verification survey on film location enticements for foreign video works including digital distribution while paying close attention to the impact of the COVID-19 and confirming that the situation is suitable for the film location enticements. Conduct the effectiveness verification of gaining new knowledge, regional revitalization and increasing in inbound regarding the production methods and managements of human resource development and filming industry by enticements and proceed to exam the sustainable filming location enticement measures including financial supports.

(Short-term, Medium-term) (Cabinet Office, Ministry of Internal Affairs and Communications, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism)

- Ensure continuous opportunities for screening of Japanese films by promoting international cultural exchanges through films and organizing Japanese film festivals in overseas by utilizing the online including China, India, and ASEAN. In addition, implement infrastructure improvements to encourage international co-productions including further utilization of the Japan-China film co-production agreement and negotiations with Italy for the international co-production agreement.

(Short-term, Medium-term) (Ministry of Foreign Affairs)

- Support the excellent Japanese film productions in order to contribute to the maintenance of the production and release of a wide variety of films and strengthen initiatives to develop human resources through exchanges with domestic film production sites and overseas film professionals for supporting of Japanese films.

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

6. Enhancing the IP utilization in SMEs, regions (areas), and agricultural sciences

(1) Supporting the IP utilization in SMEs and regional (areas)

(Current situation and challenges)

SMEs represent 99.7% of all firms and are extremely important in the innovation ecosystem in Japan as a source of innovation.

However, the IP activities are not fully implemented due to a lack of information, knowledge, and

human resources related to the IP and a lack of funds. In order to overcome this situation, it is necessary to strengthen the IP utilization support for SMEs, and to revitalize and develop SMEs.

Under these circumstances, the Small and Medium Enterprise Agency, the Japan Patent Office, and INPIT formulated the “Intellectual Property Utilization Action Plan of SMEs and startups” in December 2021 including the management strategy planning supports utilized of the IP for building an environment in response to the business environment changes with leveraging their strengths.

This action plan is to clarify the role of each support including past initiatives and build effective and efficient collaboration among measures from awareness of the importance of intellectual property strategies in business to implementation including initiatives by INPIT toward strengthen the comprehensive IP support desks established in 47 prefectures, accompanying support by a team of the IP and management experts for SMEs, and dispatching of local brand designers to provide advice to shopping districts aiming to revitalize their towns by utilizing local brands.

It is also necessary to create an environment that SMEs with limited financial resources but excellent IP can raise funds by using the IP.

The Japan Patent Office provides support to regional financial institutions for the preparation of "Intellectual Property Business Proposals," that propose resolutions to SMEs management challenges through the IP utilization. In addition, the Japan Patent Office and INPIT have prepared guidelines and templates for the IP evaluation utilization that contribute to utilize the business evaluations of financial institutions and started to provide support to SMEs using the guidelines and templates developed by the IP general support desk.

In order to solve the fund shortage for SMEs to establish the IP strategies, the Japan Patent Office provides foreign application subsidy support for SMEs by uniformly reducing patent examination fees and patent fees and expanding the scope of support to include examination request and interim response fees in addition to the conventional application fees.

Furthermore, the Management Design Sheet, a tool for designing management by accurately evaluating the role that the IP plays in the enterprise's value creation mechanism, is useful for business feasibility evaluations by financial institutions and it is important to aim to promote the use of management design sheets at financial institutions and SMEs in order to expand and accelerate the business succession of SMEs and the financing of the IP by financial institutions.

The above action plan states that more substantial and comprehensive accompany-type support will be provided including the management design sheet and the IP landscape utilization regarding the planning the IP utilization strategies with a clear focus on solving business challenges in the future.

In the “Reconstruction of SME accompany-type support model ~ Aiming to bring out the latent potential of business owners under drastic environmental changes such as COVID-19, decarbonization, and DX~” published by the Small and Medium Enterprise Agency in March 2022, as one of the significance and possibilities of the accompanying support, it is stated that the project will further enhance the growth potential of SMEs, facilitate smooth business succession, and encourage stagnant management reforms so that a management design sheet is exemplified as one of the support tools for this purpose. In this way, it is necessary to further promote focused and accelerated support for SMEs that account for the majority of

Japanese enterprises in order to effectively utilize the IP as a management resource.

In addition to this, the revitalization of local economies is one of the most important challenges in Japan, and it is necessary to strengthen the IP utilization in local regions in order to promote the creation of innovation by local enterprises. For this reason, the Regional Intellectual Property Strategy Headquarters have been established nationwide to provide the IP support tailored to the actual conditions of each region since 2005. In the "Second Regional Intellectual Property Revitalization Action Plan" formulated in July 2020, considering the challenges found of SMEs supports based on the First Action Plan and in the "Basic Survey on Intellectual Property Activities of SMEs" of Japan Patent Office, hands-on supports for regional companies to develop the IP strategies, providing one-stop services at the IP comprehensive support offices established in 47 prefectures, the IP support through collaboration, and integration of support organizations for local companies in the region are conducted with the fact that the stage and awareness of the IP utilization varies depending on the region, industry, and the years of establishment.

In each region, there are SMEs support organizations such as chambers of commerce and industry that focus on the IP support and Yorozu support bases as familiar contact points for SMEs and it is important to make maximum utilization of these support organizations as well as the IP comprehensive support desk. In the "Intellectual Property Utilization Action Plan for SMEs and Startups", INPIT's function as a core institution for the IP management support is to be strengthened through collaboration strengthening such as setting up a network conference on the IP management support with SME support organizations and financial institutions as members other than the organizational collaboration between INPIT and SME support organizations.

In the future, it is necessary to improve the environment in each region to promote the acquisition and utilization of the IP and to create innovations.

(Direction of measures)

- Build the collaboration system in regional blocks for the integration of support measures between INPIT and SME support organizations and strengthen the supports for strengthening the IP management of SMEs and startups, building local brands in shopping malls, and expanding overseas with accompany support by experts based on the direction of the "Intellectual Property Utilization Action Plan for SMEs and Startups" published in December 2021.

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

- Support the IP strategy construction for the IP utilization with cooperating with local governments' voluntary support initiatives for the IP utilization of mid-sized and SMEs based on the "Second Regional Intellectual Property Revitalization Action Plan" (formulated in July 2020). Regarding the above supports, evaluate and verify by the "Perspectives on measuring KPI (output)" and "Perspectives on measuring effectiveness (outcome)". Hold a collaborative meeting between INPIT and each Bureau of Economy, Trade and Industry to expand support for local SMEs in addition to taking necessary measures to strengthen collaboration between the IP comprehensive support desks and SME support organizations.

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

- Conduct useful evaluations and analysis, and promote the SMEs supports by financial institutions by providing the preparation supports of the “Intellectual Property Business Proposals” to regional financial institutions with offering templates and guidelines for preparing the "Intellectual Property Business Evaluation Report" in order to promote the IP utilization in SMEs through the IP-based business feasibility evaluations.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry) [Reposted]

- Utilize the information in responding to business consultations by supporting in the examination of long-term vision through the management design sheet creation at the Yorozu Support Center.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, Cabinet Office)

(2) Ensuring appropriate IP transactions of SMEs

(Current situation and challenges)

Compared to large enterprises, SMEs have fewer management resources. By building-in the IP such as innovative technologies and ideas, designs and brands that is visualized, and increasing the enterprise values with competitiveness in the business market including overseas and fundraising ability, it also leads to securing the ability to build equal partnerships with large enterprises.

On the other hand, some problems have been pointed out while SMEs are promoting collaboration with large enterprises. Specifically, there are clarified cases⁵ that a large enterprise was requested to attribute only the results to the large enterprise despite the fact that the enterprise's contribution to the joint research was almost negligible, the held IP license was requested to provide at no cost from a large enterprise, a free transfer of the IP was requested by suggesting the exercise of appraisal right set in the investment contract for startups. There is a need to improve the environment for SMEs to compete fairly and freely.

Under these circumstances, in February 2022, the Small and Medium Enterprise Agency compiled the "Five Initiatives for Proper Transactions" in order to further optimize transactions between large enterprises and subcontractor SMEs. Based on this initiative, we will create the "Intellectual Property G-Men" that specializes in dealing with the IP related transaction problems and hold an "Intellectual Property Transaction Advisory Board". In addition, the Small and Medium Enterprise Agency published "Guidelines and Model Contracts for Intellectual Property Transactions" (March 31, 2021). In the “Intellectual Property Utilization Action Plan for SMEs and Startups”, as part of INPIT's initiatives to promote the appropriateness of IP transactions, a video explaining the guidelines and contract templates for the IP transactions is now available through INPIT's IP e-learning service (IPePlat) by the mutual cooperation between subcontractor and the counselors of the IP comprehensive support desk and the collaborative support for resolving the IP

⁵ Japan Fair Trade Commission "Comprehensive Survey Report on Abuse of Superior Bargaining Positions Targeting Manufacturers' Know-How and Intellectual Property Rights" (June 2019), "Comprehensive Survey Report on Business Practices of Startups" (November 2020)

transaction problems.

The IP owned by SMEs will be circulated in more active transactions and a foundation will be built for smooth utilization without causing unnecessary disputes when the awareness of the fair IP practices is familiarized and raised through these measures. At the same time, continuing to enhance supports for strategy building and operations is expected to lead to the creation of innovation in Japan.

(Direction of measures)

- Promote the dissemination and utilization of contract templates while requesting compliance with guidelines on the transactions through the partnership building declaration. Understand the actual status of transactions related to the IP by the IP G-men in response to the IP related transaction issues professionally, hold the new “Intellectual Property Advisory Board”, and take necessary measures such as guidance and advice to the parent company.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, Cabinet Office)

(3) Enhancing the IP utilization in agricultural sciences

Japan's agricultural, forestry, fisheries, and food products have unique characteristics and strengths that are unparalleled in other countries by the “Intellectual Property” of the technology and know-how to produce high quality and high valued products and Japan's food culture and traditional culture.

On the other hand, expanding demand in foreign markets has led to an increase in the protection aspect of the IP. There are confirmed cases that counterfeit Japanese brand products has distributed in overseas markets, Japanese products are competing with superior breeds developed in Japan and sold overseas, and Wagyu genetic resources being illegally exported overseas. Not only will the brand value of Japanese products be damaged, and the profits and rights of local agriculture, forestry, and fisheries businesses and research and development organizations that have worked so hard to obtain them be severely impaired, but they may also lose the powerful overseas markets that have been able to secure.

In light of this situation, by implementing the appropriate management of plant varieties based on the revised Plant Variety Protection and Seed Act and supports for variety registration in overseas and protection of the value of livestock genetic resources as the IP under the Prevention of Unfair Competition Related to Livestock Genetic Resources Act forced in October 2020.

In the field of agriculture, forestry and fisheries, there are many tasks that rely on manual labor or can only be done by skilled workers. It is also expected to reduce labor burden and save labor, and to make tacit knowledge into explicit knowledge by utilizing AI and data. However, if the IP of these know-how is leaked abroad against the will of the farmers, some are concerned that competition with export products from our country will further intensify by being combined with other intellectual property such as excellent breeds from Japan taken out without permission. Under these circumstances, in order to protect the IP of excellent cultivation, breeding technology, and other know-how in the agricultural field as trade secrets, the

"Protection of Trade Secrets in the Agricultural Sector Guidelines" was formulated in March 2022 to summarize the management of technology and know-how with the peculiarities of the agricultural sector, handling methods, and notes.

Continuously, it is necessary to promote initiatives for the strategic creation, protection, and utilization of the IP for strengthening the international competitiveness of the agriculture, forestry, fisheries, and food sectors as stated of the "Toward the Creation, Protection and Exploitation of Intellectual Property in the Agriculture, Forestry, Fisheries and Food Sectors" subtitled in the "Ministry of Agriculture, Forestry and Fisheries Intellectual Property Strategy 2025" formulated in April, 2021.

(Direction of measures)

- Promote dissemination and enlightenment to encourage further use of the IP rights system to protect and utilize the IP in the fields of agriculture, forestry and fisheries with initiating to create easy-to-understand teaching materials for protecting and utilizing the IP in the agricultural field for students of agricultural high schools by aiming to develop the next generation of human resources who are bright in the field of the IP in the agricultural sector.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Promote appropriate management of registered varieties by breeders utilizing the revised Plant Variety Protection and Seed Act with preventing the exportation of breeder's right infringing seeds abroad by making the revised Plant Variety Protection and Seed Act known to the public and collaborating with the customs authorities.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Support the information collection and provision by agricultural IP management support organizations, the acquisition of breeder's rights in overseas, and the sophistication of infringement countermeasures of the defensive licensing toward the protection and utilization of Japanese developed varieties in overseas.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Promote the cooperation with overseas breed protection examination authorities to proceed the variety registration early in overseas by the utilization of the results of variety registration examination in Japan for overseas examination and communalization of application forms collaborated with the UPOV's common application system (UPOV Prisma) while promoting the UPOV accession treaty of East Asian countries through the collaboration with the East Asia Plant Variety Protection Forum activities.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Launch the operation of the common variety registration application system (e-PVP Asia) that enables simultaneous filing to multiple countries that has been proceeded the joint development with UPOV and Vietnam for the early breed registration by streamlining the application of Japanese varieties to the East Asian region.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Promote harmonization of Japanese variety registration examination standards with international standards in order to enhance the level of variety registration examination in accordance with the revised Plant Variety Protection and Seed Act. In addition, enhance a research implementation system with promoting internationally harmonized cultivation trials regarding the characteristic research of variety conducted by the National Center for Seed and Seedling Management, National Agriculture and Food Research Organization. Furthermore, research if efficient variety registration examination is able to conduct in Japan based on the international technological development situation regarding the genetic information utilization for variety registration examination.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Exam the establishment of a breeder's right management institution that manages and protects the IP rights of breeder's rights by receiving the trust of breeder rights of new plant varieties in order to effectively implement the prevention of overseas outflow of seeds and seedlings in accordance with the Plant Variety Protection and Seed Act.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Strengthen monitoring of GI violations both domestically and in mutually protectorate countries (e.g., the EU) with building a consistent support system from application for GI registration to follow-up after registration, expansion of applications for a variety of export-oriented items including processed products, supporting for initiatives to expand exports and sales channels for GI products for promoting the Geographical Indications (GI) protection system and expanding exports.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Promote the following initiatives bases on the Act for Improvement and Increased Production of Livestock and Act on Prevention of Unfair Competition in Livestock Genetic Resources (effective on October 1, 2022).

(1) Promote initiatives to prevent unfair competition by promoting contracts through the dissemination of a contract template to be concluded in case of transferring Wagyu genetic resources through implementation of the guidelines (published in March 2021) regarding the operation of Act on Prevention of Unfair Competition in Livestock Genetic Resources.

(2) Strive to ensure through legal compliance by conducting on-site inspections and promote further optimization of distribution management during FY2022 based on the results of on-site inspections of livestock artificial insemination centers nationwide conducted by FY2021 and surveys of compliance with laws and regulations with thoroughly enforcing the Act for Improvement and Increased Production of Livestock by holding workshops for livestock artificial insemination technicians. In addition, promote the computerization by reduction of prefectural administrative work associated with reports from livestock artificial insemination centers, operation of a

nationwide system for information aggregation (starting in April 2021), and enhancement of functions.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Formulate the “Guidelines for Open API Development in the Agricultural Sector”, and based on these guidelines, develop open API for agricultural machinery manufacturers to acquire location information and work hours. In addition, a requirement of the grant was to select those manufacturers that have an open API in place in case of introducing tractors, combine harvesters, and rice transplanters through subsidized project by the Ministry of Agriculture, Forestry and Fisheries regarding the data on location information and working hours acquired by agricultural machinery, in order for farmers can use systems other than the relevant manufacture. Continue to promote the open API development as the above requirements in FY 2022.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Relevant ministries and agencies work together and promote standardization activities with related independent administrative agencies for the standard strategic utilization (smart agricultural technology) in the fields of agriculture, forestry, fisheries, and food. Operate steadily of the communication, information sharing, and consultation system in the vertical linkages between headquarters and branches within related independent administrative agencies and horizontal connections among relevant institutions in the community in order to realize the standardization needs properly.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries, Ministry of Economy, Trade and Industry) [Reposted]

7. Strengthening systems, operations, and human resource foundations that support the IP utilization

(1) Infrastructures for the IP dispute resolution

(Current situation and challenges)

In order to properly protect and utilize the IP, it is essential to develop an infrastructure for the IP dispute resolution. The risk of being involved in the IP disputes is increasing for enterprises that are expanding their business globally and the resolution methods also become more complex as the globalization of intellectual property disputes progresses.

The method of calculating damages was revised to provide appropriate relief for patent infringement (enforced in April 2020) along with the introduction of a inspection system that enables evidence collection by neutral experts in the patent infringement litigation (enforced in October, 2020) for infrastructure development of the IP dispute resolution. In addition, a system for soliciting third-party opinions in patent infringement suits was included (enforced in April 2020).

It will be necessary to the infrastructure development for the IP dispute resolution to be developed based on the specific needs of the market because there are still calls for the enhancement of the damage compensation system to relieve appropriately for those rights have been violated and deter the infringement.

In addition, as a means of solving the IP disputes, the utilization of alternative dispute resolution (ADR) procedures may be effective other than the lawsuits.

Arbitration is a procedure that a third-party arbitrator is selected based on the agreement of the disputants, and the dispute is solved based on the arbitrator's judgment. International arbitration has become the global standard for dispute settlement in international trade because of the benefits that it is easy to enforce in foreign countries under the New York Convention, that professional and neutral arbitrators are selected, that arbitral proceedings are generally quicker than court proceedings, and that confidential information is kept secret as a general rule. However, the use in Japan has been sluggish.

For this reason, the Legislative Council examined the revision of the arbitration law, In October, 2021, “Outline of Amendments to the Arbitration Law” were compiled including granting competing jurisdiction regarding the establishment of rules for provisional measures in the temporary conservation measures and arbitration related case procedures (revocation of arbitral award and procedure for execution decision, etc.) to the Tokyo District Court and Osaka District Court and allowing the omission of attached translation of the arbitration award in certain cases. In addition to the meditation, the “Draft Concerning the Establishment of a System that Can Grant Enforceability to Settlement Agreements Through Meditation has compiled and the preparations are underway to submit a bill in response.”

It is believed that the global IP disputes may increase because of increasing opportunities for overseas transactions and investment by Japanese enterprises. The infrastructure development is also important for vitalizing the international arbitration, in addition to further utilization of the specialized arbitration facility in Toranomon, Tokyo, further promotion of measures for awareness raising and public relations for enterprises and human resource development is required.

In regard to IT implementation for civil cases, a law was enacted to partially revise the Code of Civil Procedure for the full IT implementation of procedures from the filing to the judgment of civil lawsuits in May, 2022. This is expected to speed up and improve the efficiency of the IP litigation. Even in trial procedures at the Japan Patent Office, IT implementation is being promoted that online appearances will be available to the parties via a web conferencing system in the oral proceedings of patent invalidation trials from October 2021.

(Direction of measures)

- Promote public relations and awareness through human resource development and seminars by the industry group and country by the provision of training to a wide range of students, legal apprentices, and young lawyers with promoting service improvements including further ICT adoption of the international arbitration facility in Toranomon, Tokyo. Proceed with preparations for early submission of the bill in response to the revision of the arbitration law that corresponds to the latest international standards and the guidelines for mediation compiled by the Legislative Council.

(Short-term, Medium-term) (Ministry of Justice, relevant ministries)

- Proceed with preparation for the enforcement of a law to partially revise the Code of Civil Procedure that will fully IT the procedures from filing to judgment in civil cases in order to further speed up and improve the efficiency of the IP litigation.

(Short-term, Medium-term) (Ministry of Justice)

- Promote necessary preparations to enable online submission of documents in party-related trial procedures.

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

- Organize international conferences and follow-up seminars on the IP-related disputes with judicial officials in the Asian region with improving the dispute resolution capacity throughout the Asian region, organize the international conferences with judicial officials in Western countries with the international collaboration in the IP dispute resolution, and provide the information on the IP dispute resolution to Japanese legal professionals and private enterprises.

(Short-term, Medium-term) (Ministry of Justice, Ministry of Economy, Trade and Industry)

- Promote Online Dispute Resolution (ODR), which utilizes digital technology to conduct ADR online, and provide a variety of dispute resolution methods for the IP, and expand further and revitalize of ADR and ODR by disseminating and publicizing ADR/ODR and promoting initiatives to strengthen collaboration between certified ADR operators and related organizations.

(Short-term, Medium-term) (Ministry of Justice)

- Promote the development of a system for the rapid release of translations including the utilizing of machine translation (AI translation), and actively disseminate translations overseas for expanding the high-quality English translation provision of Japanese laws and regulations.

(Short-term, Medium-term) (Ministry of Justice)

- Support the development of the IP judicial personnel in order to establish an effective judicial process by providing trainings to judicial officials in emerging countries in order to establish an effective judicial process with supporting the development and operation of legal systems for the exercise of the IP rights in emerging countries.

(Short-term, Medium-term) (Ministry of Justice, Ministry of Foreign Affairs)

(2) Reinforcement of examination infrastructure for the IP rights

(Current situation and challenges)

At the meetings of Financial Review Subcommittee, Intellectual Property Committee, Industrial Structure Council, discussions were held on the stable management of the Patent Special Account of the Japan Patent Office. As for the ideal fee structure, the subcommittee concluded that it was necessary to see the transition if the necessary investment expenses could be secured after securing a certain amount of surplus.

Based on this, the “Act to Partially Revise the Patent Act” and “Cabinet Order on the Development of Related Cabinet Orders Accompanying the Enforcement of the Act to Partially Revise the Patent Act” came into effect on April 1, 2022, and the patent-related fees, trademark-related fees, and international search fees for international applications were revised.

Regarding patent examination, in addition to the severe constraints on financial and human resources of examiners at the JPO, the workload of patent examiners is increasing by responding to the recent increase in PCT applications and the rapidly increasing number of foreign-language patent documents. In addition, user needs for patent examination are also changing in response to the diversification of the enterprise’s IP strategy.

In light of this situation, the JPO has been taking various measures to promote "patent examination innovation" since FY2021 for pursuing further efficiency and improving quality to fill the gap between the amount of work and examination processing, and transforming into the patent examination that can provide new value to users. We have been enhancing communication with applicants and promoting measures relating to examination that are in line with the business strategies of the companies, such as Collective Examinations for IP Portfolio Supporting Business Strategy, and will continue to review the provided value and consider the necessary examination practices from the viewpoint of co-creation of patent rights with users.

In design examination, there are challenges such as the severe manpower situation, the increasing number of prior arts year by year, and the sluggish growth in the number of applications. We will continue to make initiatives to further improve convenience based on user needs by strengthening awareness of the

importance of design, how to use design rights strategically and communicate with design system users for initiatives to improve examination quality and establishment of useful design rights.

Furthermore, regarding the trademark examination, the burden of examination processing on trademark examiners is increasing as the number of applications for trademark registration increasing in recent years. Under these circumstances, the JPO promotes “fast-track examination” and streamlines the examination process of trademark applications such as promotion of filing non-defective applications, as well as enhances the examination system such as increase in the number of examiners and utilization of cross-sectoral search scheme. In addition to these, we will consider improving the environment for promoting international trademark applications toward the computerization of international trademark applications.

In order to obtain the IP rights for the commercialization by the applicant, the roles of not only examiners but also attorneys and patent agents who handle the examination application procedures and dispute resolution are extremely important. In this context, some of users such as applicants have asked for advice other than the patent application procedure, for advice on options other than filing an application, for appropriate opinions on examiner's decisions, and for obtaining a patent that suits their business. In light of this situation, patent agents are required to provide new value that goes beyond draft of the description, such as helping them succeed in their business by proactively communicating with applicants for obtaining patents that can be a powerful weapon for SMEs and startups.

In the future, it is necessary to strengthen the examination infrastructure, which is the fundamental infrastructure for promoting innovation.

(Direction of measures)

- Review of the provision value according to the applicants’ needs regarding the quality and convenience of examination, streamlining patent examination process to improve efficiency and optimize the burden of examination process and take necessary actions for promoting the patent examination innovation with enhancing the examination system to provide world’s fastest and highest quality examinations.

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

- Continue to make initiatives to further improve convenience based on user needs by strengthening awareness of the importance of design, how to use design rights strategically and communicate with design system users for initiatives to improve examination quality and establishment of useful design rights.

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

- Proceed the “fast-track examination”, promote the application without grounds for refusal, utilize cross-sectoral search scheme, improve the efficiency of the examination process of trademark applications and streamlining the examination system and consider the environmental enhancement for international application promotion of trademarks.

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

- Aim to disseminate and permeate Japan's examination guidelines and examination practices with supporting the development of the IP systems in emerging countries by providing trainings that include instructors of Japanese examiner experts for the IP human resources in emerging countries in order to support the global expansion of Japanese enterprises in the emerging markets that are expected to expand further in the future with utilizing online trainings.

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

(3) Developing human resources for the IP creation and utilization

(Current situation and challenges)

Knowledge of intellectual property is indispensable for the social implementation of innovation in Japan. It is important to continuously foster human resources who can create and utilize intellectual property from primary to higher, and adult education.

As a systematized index of practical competence in the IP, there is the IP human resource skill standards that was formulated by the Ministry of Economy, Trade and Industry in 2007 and it was revised as the version 2.0 by the Patent Office in 2017. The Intellectual Property Management Proficiency Test, which is a national test conforming to the IP human resource skill standards, is utilized to train the IP human resources in enterprises.

In the IP education at universities, Yamaguchi University, which has been certified by the Ministry of Education, Culture, Sports, Science and Technology as an “Educational Joint Usage Center” related to the IP education, is expanding the introduction of the IP education curriculums to other universities. In addition, the Osaka Institute of Technology was designated by the Minister of Health, Labour and Welfare as a recipient of the Specialized Practical Education and Training Benefit System for its courses at the Graduate School of Intellectual Property Specialization. “Reference Standards for Curriculum Development in Intellectual Property Study” was created and published in February 2022 for the purpose of reference in case of organizing a curriculum for the “Intellectual Property Study”.

At elementary, junior high and high schools and technical colleges, In March 2021, a concrete action plan was compiled for those involved in the IP creation education in the "Intellectual Property Creativity Education Promotion Consortium" for aiming to spread "Intellectual Property Creativity Education", which is an education to learn and nurture in a fun way of "creating something new" and "respecting what has been created". The full-scale operation of a regionally-led regional consortium has begun since FY 2021, it is expected that each regional consortium will play a leading role in the spread and practice of intellectual property creation education in the future.

(Direction of measures)

- Promote the smooth introduction of the IP education into the curricula of the university by sharing the IP education curriculum and introduction process of universities certified as “Education Related Joint

Use Center” regarding the IP education for the universities that is examining the introduction of the IP education.

(Short-term, Medium-term) (Cabinet Office, Ministry of Education, Culture, Sports, Science and Technology)

- Research on the IP-related content of high school textbooks following the revision of the Courses of Study and exam the specific measures to introduce the IP creation education into everyday classes.

(Short-term, Medium-term) (Cabinet Office)

- Provide supports to spread and promote the IP creative education through the collaboration between schools and teachers who engage in the IP creative education and the IP creative education promotion consortium and regional consortiums.

(Short-term, Medium-term) (Cabinet Office)

- Encourage to acquire the IP related qualifications of the Intellectual Property management skill test in order to raise awareness of the IP in enterprises and schools.

(Short-term, Medium-term) (Cabinet Office, Ministry of Economy, Trade, and Industry)

- Renewal of the copyright Q&A book to provide basic knowledge of the copyright system and provide effective dissemination and awareness.

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

- Support universities that conduct advanced and practical lectures and research as well as identifying and fostering human resources with the ability to have the original ideas by utilizing the global science campus and mechanism of exploratory projects.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)

- Create and disseminate the utilization examples the online teaching material platform STEAM library at schools for STEM education that is collaborated and developed with enterprises and research institutions for realizing the individually optimized learning and interdisciplinary and exploratory learning that nurtures creativity. In addition, promote awareness of the IP education programs developed in FY2021 by posting in the STEAM library among educational sites.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, Cabinet Office)

8. Restarting the Cool Japan (CJ) in anticipation of post-COVID

More than two years since the COVID-19 began to rage, but while the vaccine has become more widely available worldwide, the Omicron strain and others have spread, and the disease has yet to be terminated. CJ-related sectors such as food and beverage, tourism, culture and arts, events and entertainment have been hit hard by the prolonged COVID-19, and some of them are in jeopardy of their survival. The CJ-related sector is a source of Japan's rich culture and charm and one of the pillars of the Japanese economy. It has also been a source of inspiration, entertainment, and comforting to people, especially those who are facing difficulties. In order to keep the light of Japanese culture and art alive, further develop, and to maintain the foundation for economic development, it is important to ensure the survival of CJ-related fields and the continuation of activities and job opportunities for those who work there. The government has taken various support measures in cooperation with related industries, it is important that the public and private sectors continue to work together to steadily implement necessary measures from now on.

Under these circumstances, the "Intellectual Property Strategic Program 2021", by understanding the impact of the COVID-19 on the behavior patterns of people around the world, while maintaining the idea of "strengthening Japan's soft power by increasing the number of foreigners who are fans of Japan," which is the outline of CJ's strategy so far, we rebuilt the CJ strategy by strengthening the two "transmission power" and "foundation for supporting CJ", and adding three of "Responding to changes in values", "Building a virtuous cycle between exports and inbound" and "Establishing a new business model utilizing digital technology".

From July to September last year, the Tokyo 2020 Olympic Games and Tokyo Paralympic Games were held under strict restrictions to prevent the COVID-19. At that time, Japanese people rediscover the attractiveness of Japan according to the beaming of Japanese food and lifestyle widely all over the world through SNS of Olympians and affiliate and it became a major legacy for future CJ initiatives. It is also desirable to actively promote Japan's safety, security, hygiene, hospitality, and cutting-edge technologies (face recognition, robots, security systems) used at the conference to the world including from the perspective of CJ.

Expo 2025 Osaka, Kansai, Japan to be held in 2025 under the theme of the "Designing Future Society for Our Lives" where co-creation, demonstration, and communication will take place in the fields such as tourism, food, culture, health, medicine, science, and technology. CJ is widely involved in these fields, Expo 2025 Osaka, Kansai, Japan, which is attracting a great deal of attention from around the world, should be seen as an excellent opportunity for CJ to further strengthen its communications.

Recent trends in various fields such as art, sports, and games, businesses by NFT are emerging. It is important for the future of CJ that the abundant content in Japan including anime, manga, art, and games by loved to a wide range of people around the world through active utilization of digital technology of NFT, so that public and private sectors need to work together to provide supports.

The tough battle against the COVID-19 still continues. On the other hand, a number of countries have already announced the elimination or relaxation of border control measures. Japan has also announced a policy of further relaxation of border measures and just announced the resumption of foreign tourist acceptance on package tours with tour conductors from June 10 this year. In the future, we will continue to monitor the infection situation and aim to gradually accept people as usual. With a view to the coming full resumption of the international human flow, CJ-related sectors are required to immediately implement the concept of reconstruction in anticipation of the post-COVID to "restart" the CJ strategy.

(Direction of measures)

- Secure the survival of CJ-related fields that have been severely damaged for securing the employment opportunities for people who are active there and the continuation of activities, implement steadily of emergency economic measures related to the COVID-19, and devise easy-to-understand dissemination of the contents and procedures of economic measures in order to ensure that necessary support measures are taken at the appropriate time for those in need.

(Short-term, Medium-term) (relevant ministries)

- Establish new business models using the digital technology, review business practices including contractual relationships and accounting procedures, and devise measures to strengthen CJ-related fields through examination of safety nets at the implementation of business measures.

(Short-term, Medium-term) (relevant ministries)

- Listen carefully of needs and exam with the industry characteristics regarding the necessary measures to ensure the survival and further development of CJ-related fields.

(Short-term, Medium-term) (Cabinet Office, relevant ministries)

- Promote initiatives that contribute to business model innovation and strengthen the earnings foundation through diversification of revenue channels and expansion of customer experience regarding the performances in Japan with post-COVID.

(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, relevant ministries)

- Ensure opportunities for artists to develop and present their work, reinforce the ongoing activity foundation, and support the initiatives to acquire of viewers through ICT.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, relevant ministries)

- Proceed the initiatives to improve the business environment for people involved in culture and the arts including freelance artists by creating a model contract for the purpose of establishing appropriate contractual relationships in the field of culture and the arts to spread awareness.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology) [Reposted]

- Conduct a public-private sector campaign to stimulate demand while monitoring the status of the convergence of infectious disease outbreaks in the events related to culture, arts, and sports severely affected by the COVID-19. In addition to the events, disseminate and establish a “New Way of Event” in the society through campaigns.

(Short-term) (Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Agriculture, Forestry and Fisheries, Ministry of Education, Culture, Sports, Science and Technology)

- Support for disinfection, temperature measurement, and ventilation at event venues to prevent transmission of the COVID-19 while conducting the event.

(Short-term) (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade, and Industry)

- Support the development and dissemination of evidence-based guidelines to prevent the spread of infection for holding the events continuously.

(Short-term) (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry, Ministry of Health, Labour and Welfare, relevant ministries)

- Review restrictions at appropriate times with the domestic and international infection situation of the COVID-19 regarding the new entries of foreign nationals including foreign event and entertainment professionals who wish to enter Japan for performances and simplify procedures by operating an online application system (Entrants, Returnees Follow-up System (ERFS)).

(Short-term) (Cabinet Secretariat, Ministry of Justice, Ministry of Foreign Affairs, Ministry of Health, Labor, and Welfare)

(1) The three methods for restarting the CJ strategy

As mentioned above, in the "Intellectual Property Strategic Program 2021", rebuild the CJ strategy, there are three items to focus on: "responding to value changes," "building a virtuous cycle of exports and inbound business," and "establishing new business models utilizing the digital technology" as a new matter to be emphasized, two items to strengthen on "transmitting power" and "foundation supporting CJ". Among these, regarding the "Building a virtuous cycle between exports and inbound", the export value of agricultural products in 2021 will hit a record high, and the economy will remain strong despite the COVID-19. In the "Establishing a new business model utilizing digital technology," initiatives are accelerating by spreading the online distribution rapidly in various fields (refer to the "(2) Initiatives of the relevant ministries and agencies in regard to restructuring the CJ strategy"). On the other hand, in the "Responding to changes in values", "transmission power" and "foundation for supporting CJ", it is difficult to quantify progress because the issues are abstract and diverse. In this plan, it was decided to encourage further initiatives by presenting concretely as "three methods for restarting the CJ strategy".

① Refining from a sustainable perspective

(Current situation and challenges)

In recent years, the idea of sustainable (or sustainability) and the SDGs have become a global trend. In September 2015, in the "2030 Agenda for Sustainable Development" was adopted by all 193 member states of the United Nations, the "SDGs (Sustainable Development Goals)" was established by 17 goals and 169 targets. In May 2016, the "Sustainable Development Goals Promotion Headquarters" headed by the Prime Minister was established, and since then initiatives by local governments and enterprises have accelerated. The impact of the COVID-19 has brought a major shift in the attitudes and values of people around the world including an emphasis on human relationships and consideration for the local and global environment, and a growing behavioral pattern that strongly avoids goods and services that are based on someone else's "sacrifice". This trend is particularly noticeable among Generation Z, who are not only emphasizing the idea of sustainability in their daily consumption activities but are also increasingly taking proactive actions to disseminate the information on social media for resolving social challenges.

The culture, behavioral norms, and lifestyle that have been handed down in Japan since ancient times are represented by such phrases as "otagaisama (to be kind to one another), omoiyari (to care for one another), mottainai (do not waste), and sampo yoshi (three way satisfaction)". There are many things that have an extremely high affinity with the idea of sustainability that respects others. CJ is the totality of Japan's soft power, which is broadly rooted in Japan's history, culture, tradition, nature, and lifestyle, and is also thought to have a high affinity with the idea of sustainability. In addition to the excellence of the products and contents, if CJ could promote the idea of sustainability that is rooted in the products and contents in its future initiatives, we can gain the sympathy from many people around the world and there will be a big trend that Japan and the world will work together to create the future. For example, Japanese food is made from a variety of seafood and mountain delicacies, since it is excellent not only in terms of nutritional balance but also in the environmental impact, it may be possible to appeal that "eating Japanese food will lead to a sustainable future".

However, the attitude that "Japanese culture and lifestyle have always been sustainable" will not gain sympathy from the rest of the world. It is necessary to check whether the current CJ contains anything that is incompatible with sustainability. A service that is thoughtful to the Japanese may appear excessively packaged or disposable to foreigners. Even if a product is excellent, if the manufacturing, distribution, and consumption processes involve issues such as human rights (child labor, diversity), biodiversity, animal welfare, food loss, and climate change, it may invite international condemnation and require urgent correspondence.

It is said that focusing on the idea of sustainability enhances "co-creation power". In other words, the use of sustainable ideas will increase the ability to communicate, gain empathy from others who share the same values, and create new value by building bridges of cooperation and collaboration. Due to the prolongation of the new corona, CJ's initiatives are facing a big crisis.

On the other hand, this period is also a suitable opportunity to reconsider the essence of Japan's charm and rediscover its splendor and depth. In anticipation of the post-COVID, we will refine the appeal of each CJ based on the idea of sustainability, which should be said to be the common language of the world from now on, in other words, it is necessary to reconfirm and rediscover its appeal, and to begin the work of spinning it into a story that can gain the sympathy of people around the world.

It is also necessary to devise ways to convey to foreigners that Japanese culture and lifestyle are sustainable with an easy-to-understand manner. Japanese culture has evolved in various ways over its long history, and there are subtle differences depending on the region. Sometimes it has a religious background and it is difficult to translate this into other languages. In such cases, the 17 goals and 169 targets of the SDGs are useful. For example, the village of Shirakawa-go in Gifu Prefecture is built on "yui" which is the mutual assistance of individual families, and it will be possible to guide foreigners to the correct understanding by raising and explaining the SDGs "Goal 17: Partnerships for the goals". Furthermore, it is necessary to firmly recognize the "value" created by being sustainable. For example, products and foods made by craftsmen using natural materials are not only sustainable, but also have various added values such as "beauty", "functionality", "durability", "deliciousness", and "health". In order to appeal to people around the world, it is necessary to first show that CJ is sustainable and let many people have interests in it, and then build a story to appeal to people about the deep value of CJ. Furthermore, if new values of "technology" and "data" can be combined, it will be possible to expand globally as a business.

More and more foreigners say they love rural life in Japan and find it "cool" on a daily basis. Now that telecommuting has become widespread in rural areas, it is necessary to reaffirm the value of daily life in an affluent environment. It is sustainable to revitalize the entire region by utilizing the latest technology and involving foreigners living in the region with the charms of each region, as a core of seasonal nature, rich food ingredients, and culture and traditions nurtured over a long history. Furthermore, if the appeal of CJ is communicated to the world through foreigners, CJ will become a destination that people all over the world are longing to visit, and the frontage of CJ will be expanded. If CJ as a whole is polished from a sustainable point of view while keeping these things in mind, our lives around us and society as a whole will be transformed. Polishing from a sustainable perspective is not something that only certain people work on.

With CJ as the starting point, it is necessary for everyone to work together while having repeated dialogues with all people, including foreigners. It is also necessary to appeal to each person's consciousness so that they can work on it as their own matter, instead of working on it because they are told by others. If we can make this series of processes open and transmit them to the world, we are able to demonstrate the significance of CJ's existence in creating the future together with the people of the world.

(Direction of measures)

- In light of changing values in the world, proceed to rebuild CJ-related measures by refinement from a sustainable and SDGs perspective, incorporation of elements and perspectives of nature, environment, safety and security, hygiene, health, etc.

(Short-term, Medium-term) (relevant ministries)

② Sharing experiences and impressions through the community formation

(Current situation and challenges)

In recent years, business through co-creation with "community" has been attracting attention. This is generally organized as a marketing method that utilizes a community by fans of enterprises or brands. Recently, the relationship between communities and enterprises has been diversifying and a wide range of online activities have been developed, and more and more CJ-related enterprises and persons are also utilizing this method. The digital shift in the entire society is one of the reasons why the community is attracting attention. In today's society, there are variety of products and information that are inundated, and enterprises and consumers are connected directly through digital, and the two-way communication is now possible instead of one-way. The traditional emphasis on "competition" to beat rivals has now shifted to "co-creation" to build cooperative relationships with consumers and other enterprises, and the new relationship among the community, enterprises and brands is building.

Especially in the coming Web 3.0 age, it is said that a "token economy" will emerge in which consumers around the world will be connected through tokens (cryptocurrency) based on blockchain technology. In the future, if the "token economy " based on the contents of Japanese anime, manga, and games that are popular in the world emerges, at the same time, this is also a worldwide community related to CJ, the value of the content will further increase, and the token economy and CJ circle will expand, and it is expected to be a way community in the future through the various economic activities and the interaction with people.

An example of co-creation with communities in CJ-related fields is IKEUCHI ORGANIC, which manufactures and sells Imabari towels, and its initiatives are highly suggestive. This company weaves its own 100% organic cotton towels, which are internationally certified as safe for babies to eat, and is known to have many ardent fans.

The starting point for the company's community initiatives is "products and contents that make people want to talk about". Believing that fans cannot be created unless the products and contents themselves are appealing, the company has worked to refine its "management philosophy, development stories, product details, functionality, the richness of life that products bring, the philosophy of the people who make them, and staffs with a love of products.

Next, they are working on "connecting fans through experiences". The continuous holding of events at the actual stores and the annual factory events that attract fans from all over the country have led to the formation of a fan community connecting each other. Through online, the company is striving to enrich the content that fans want such as posting interviews with towel craftsmen and live broadcasting from Tanzania of a cotton production area. After the spread of the COVID-19, they are also focusing on online customer service and online factory tours. Through these initiatives, the connection between the company and its fans and among fans has been further deepened, and word-of-mouth information has been spontaneously transmitted through SNS.

In addition, they are also working on the "expand through the community". Business partners in restaurants, beauty salons, and hotels have come to resonate with the company's towels, its values, and voluntarily send information to their communities for expanding the circle of co-creation from community to community.

The above is just one example of one enterprise, but many others involved in CJ are engaged in co-creation initiatives with the community.

CJ is the totality of things and products that are perceived as "cool" by foreigners, behind the scenes, the essence (depth) of Japan's charm exists in its history, traditions, culture, nature, and lifestyle, so that there must be many foreigners who will resonate with its value and become ardent fans. Japanese food is popular among foreigners because of its deliciousness and beauty. If we can convey the value of helping people's mental and physical health and improving their quality of life, it is possible to make more foreigners as fans. By reaching out to these fans on a regular and ongoing basis both in real life and online, they can connect with each other and form a community. Furthermore, by sharing experiences and impressions, deepening the relationships, and increasing the "heat" of the community, people will voluntarily use SNS to spread how wonderful things and products are.

It should be noted here that the relationship between the community, and companies and brands is "equal" and the activities of the community are "voluntary". Although PR activities by contract also exist and are not denied, in order to expand the circle of impression and sympathy to the world from CJ people who run businesses all over the country, the viewpoint of co-creation with the "spontaneous" and "equal" community will become indispensable from the enterprise's trigger.

It should also be noted that if the community is confined to a close group between fans, it will be difficult for the circle to expand from there. By viewing community members loosely as "friends" who share a single goal, rather than "enclosing" them, the community is constantly renewed, and sustainable development and long-term activities are possible. If foreigners in Japan participate in the community, they will bring awareness from their perspective, which will activate the activities, and the circle of co-creation will spread overseas with these foreigners as the starting point.

In addition, it is important to have a viewpoint of co-creation with other communities, rather than closing oneself off to a single community. Even if the industries and regions are different, but the values behind each community are the same, it is possible for both communities to be connected, and the circle of impression and sympathy will be further expanded. If sophisticated Japanese food is loved by wealthy people around the world who love gourmet food and a new community is formed, it will open the way for global business development.

As the community develops further and the relationship with the enterprise matures, the community may propose product updates or move beyond the boundaries of the enterprise to solve social challenges, such as environmental, health, and human rights challenges.

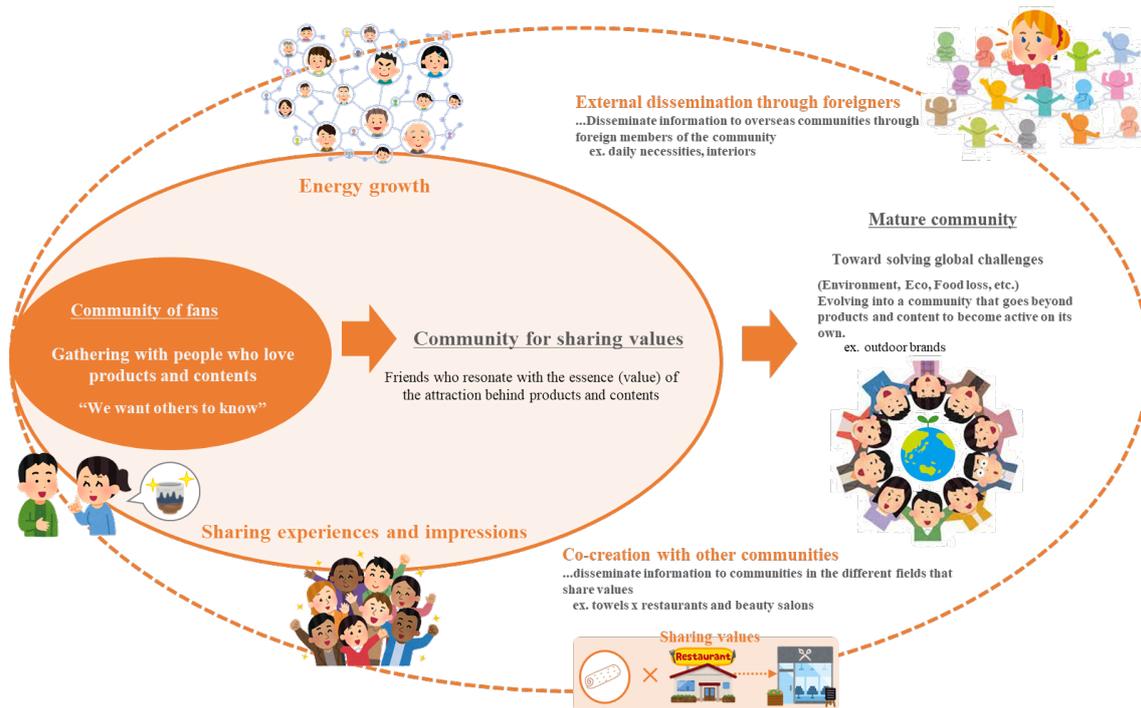


Figure 19: Gradual development and expansion of the community

In order to promote co-creation initiatives between the community and CJ-related affiliates, it is necessary to share know-how by awarding advanced cases, and to create opportunities for exchange of ideas and opinions among communities that are actively engaged in activities in the CJ Public-Private Partnership Platform.

In the ①, it was stated that life in rural areas is "cool" and "sustainable". In order to spread the charm of the region to the world and make foreigners "want to go there", it is important to create a unique attraction by mobilizing not only one content but also nature, culture, industry, food, lodging, and experiences (entertainment) in the local area by bringing together all the players in the region. Looking at this from the perspective of "community," each content of nature, culture, industry, and food has its own community of fans, the region will become a destination (travel destination) that is coveted by people all over the world by collaborating with other communities and expanding the circle of communities. This co-creation initiatives, the creation of unique local attractions by local CJ leaders working together, and the expansion of the community circle and its transmission to the world, can only be realized by connecting through digital. These are in line with the Digital Garden City Nation Concept, which aims to "solve local challenges in region and enrich people's lives through digital implementation," and should be supported.

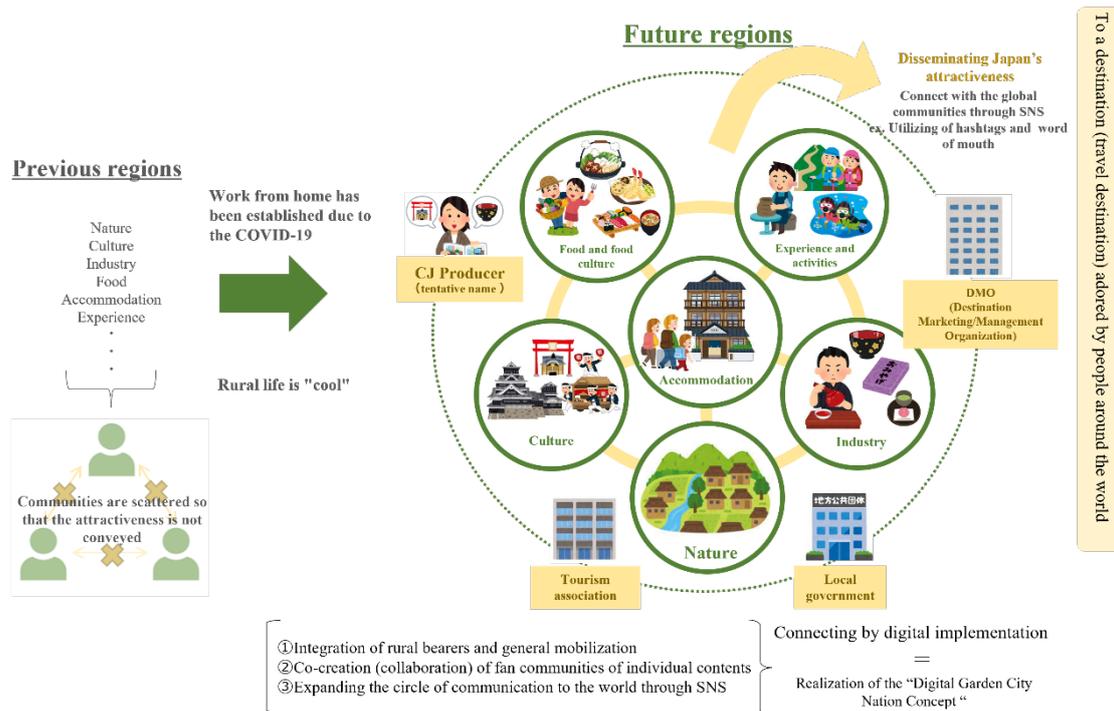


Figure 20: Local community co-creation and dissemination to the world through digital

(Direction of measures)

- Share the know-how through awards for advanced cases, provide a forum for interaction and exchange of ideas among communities that are actively involved in the project for promoting co-creation with communities in CJ-related fields.

(Short-term, Medium-term) (Cabinet Office, relevant ministries)

- Promote collaboration with CJ affiliates and initiatives to disseminate information to the world by utilizing digital technology in regions based on the Digital Garden City Nation Concept.

(Short-term, Medium-term) (Cabinet Office, Cabinet Secretariat, Ministry of Internal Affairs and Communications, Ministry of Foreign Affairs, relevant ministries)

③ Participation in a place where CJ affiliates can connect and mutually improve each other's work

(Current situation and challenges)

Cool Japan Public-Private Partnership Platform (CJPF) was established in 2015 with the goal of bringing the public and private sectors together to deepen the CJ strategy. Under the leadership of the co-chairmen, the members are about 140 organization and individuals including relevant ministries and institutions, private enterprises, institutions, organizations, local governments, and individuals as well as the Advisory Board, CJ Ambassadors, and CJ Regional Producers, and it has been working on information sharing, various events, and information dissemination domestically and internationally to promote mutual cooperation among members. As an activity example, the "Cool Japan Matching Award" has held since 2016. The award is given to advanced private-sector examples of cross-industry matching in a wide range

of fields including animation, music, art, food, and IT for promoting the attractiveness of Japan to the world in a new way. There are also initiatives among CJ affiliates to commend excellent matches, for example, the Ministry of Agriculture, Forestry and Fisheries' "Eat! Meet! Japan" and the "Ani-Monozukuri Award" by the private business sector. The CJPF is expected to play a role in building a loose network that transcends fields and regions by incorporating and organically linking a wide range of members and CJ affiliates in Japan and overseas.

However, according to CJ affiliates, the activities of the CJPF have been generally sluggish and pointed out that the amount of information provided is limited because of the one-direction. CJ is an activity to increase the number of Japanese fans by providing a wide variety of "entrances" of "animation" and "food" by showing the "depth" of the history and culture behind them. For ensuring the sustainability of CJ, we must continue to discover and refine the "entrances" and "depths" that will become new Japanese attractions. Thus, given the wide variety of CJ fields and the fact that many of the CJ players are SMEs and sole proprietors, it would be difficult to rely solely on their initiatives to further improve the attractiveness of CJ, and the CJPF should play a major role as a place for collaboration and co-creation. For this reason, the CJPF is required to support for the matching of CJ affiliates to complement each other's strengths and weaknesses by disseminating mutual information because CJ affiliates cannot do independently. Matching and collaboration among CJ affiliates with a variety of ideas will bring new value by expanding and deepening not only their own fields but also those for others. Horizontal collaboration through matching will strengthen the "individual" and lead to further strengthening of the whole.

Based on the above, the future CJPF is required to focus on the following four points.

The first is the mutual dissemination and sharing information. In order to build a network that includes a wide range of affiliates with the CJPF at its core, it is important to have "information" to link each of these affiliates together. Various entities will provide information from time to time on the latest status of each CJ-related field, trends in cutting-edge technologies, issues of interest to countries around the world, and expectations for Japan. The CJPF itself needs to develop basic information, such as collection and accumulation of information necessary for CJ initiatives, and analysis and sharing of results.

The second is the mutual complementation of the strengths and weaknesses of CJ affiliates. The functions that CJ affiliates need include (1) overseas marketing, (2) regional collaboration, (3) branding, and (4) digital technology. In the CJPF, it is necessary to receive consultations from CJ affiliates and introduce partner companies as necessary by reorganizing "CJ Producer (tentative name)" with expertise in the field by functions and providing information on the latest trends in these areas regularly.

The third is to support matching between CJ affiliates. Online events with members of the Advisory Board and CJ Producers (tentative name) with a wide range of insights will be held, conducting the interactive discussions with participating members on topics such as "Food and Technology" and "The Metaverse and Japanese Anime," for example, it may be possible that matching that has not existed before will be performed. By widely disseminating information about the event through SNS, it may be also possible to induce further new matching.

The fourth is the active utilization of foreigners who love Japan. Many foreigners who are attracted to and love Japanese culture reside in Japan and are closely connected with the foreign community outside of Japan who also love Japan. In the CJPF, it is required to bring new awareness from the perspective of foreigners, and to widely disseminate the charm of Japan to the world through the foreign community by conducting these online events by foreigners and dialogues with CJ affiliates.

From FY2021, the CJPF is working on various activities starting from "food and food culture". "Food and food culture" is rooted in the rich nature and diverse climates of each region in Japan, it has a wide range of contacts from the food industry of ingredients and seasonings, tableware and etiquette culture to the food service industry and technology so that synergistic effects from collaboration with other fields are expected. In the future, centering on the CJPF, starting with "food and food culture", in cooperation with various regions and affiliates, we will shed light on the resources and creators in the region, and polish them into attractive contents unique to Japan, which will lead to the revitalization of entire CJ and inbound tourism after the COVID-19.

(Direction of measures)

- Focus activities on four points in the CJPF for strengthening the role CJ as a place for collaboration and co-creation by widely incorporating members and CJ affiliates both domestic and international; (1) the mutual dissemination and sharing information, (2) the mutual complementation of the strengths and weaknesses of CJ affiliates, (3) support matching between CJ affiliates, and (4) the active utilization of foreigners who love Japan.

(Short-term, Medium-term) (Cabinet Office)

(2) Efforts of the relevant ministries and agencies in regard to restructuring the CJ strategy

Following the rebuilding of the CJ strategy in the "Intellectual Property Strategic Program 2021", in September 2021, the "CJ Strategy Council" was held, the Minister in charge of CJ strategy directed to rebuild the measures of relevant ministries and agencies based fully on the philosophy of restructuring the CJ strategy to the vice ministers of relevant ministries and agencies. Regarding the five points related to

the reconstruction of the CJ strategy, the current status and future direction of measures taken by relevant ministries and agencies are as follows.

① Responding to changing values

(Current situation and challenges)

The "Intellectual Property Strategic Program 2021" has pointed out that people's values around the world are changing dramatically due to the impact of the COVID-19 regarding the growing interest in social challenges of nature, ecology, SDGs, etc. as well as safety, security, hygiene, health awareness, etc., and these should be actively incorporated into the discovery and refinement of attractiveness in CJ-related fields and dissemination through storytelling.

This program focuses on the idea of sustainable (sustainability), which is now strongly recognized by many people around the world and has mentioned regarding the significance, effects, and points to keep in mind when actively incorporating CJ-related fields in the "(1) ① Refining from a sustainable perspective".

Relevant ministries and institutions are already implementing measures that incorporate sustainable values as examples of [A: investment and awards for sustainable tourist destination development] and [B: environmental consideration and sustainability initiatives]. In order to increase the attractiveness of entire Japan and make it appealing to the world, it is necessary to further develop businesses that are in line with these values.

(Direction of measures)

- In light of changing values in the world, proceed to rebuild CJ-related measures by refinement from a sustainable and SDGs perspective, incorporation of elements and perspectives of nature, environment, safety and security, hygiene, health, etc.

(Short-term, Medium-term) (relevant ministries) [Reposted]

- Conduct the "Eat! Meet! Japan" that reinforces collaboration between "food" and other industries and regions while being conscious of ensuring sustainability and taking into consideration the changing values of the world and perspectives that are valued as attractive to Japan in order to utilize the high appealing power of "food" to attract visitors from around the world to various fields in Japan, and to bring sustainable benefits to a wide range of fields and regions.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Promote the food culture with refining its appeal regarding "food" has great potential for regional revitalization with its diversity reflecting local history and characteristics. Ensure that food culture is widely recognized both domestically and internationally as a source of pride for Japan and support initiatives to effectively communicate the Japanese brand, which integrates "food and food culture", to overseas markets in response to the digital age.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries, Ministry of Education, Culture, Sports, Science and Technology)

- Support for the development of accommodation facilities utilizing old private homes, dining menus and experience and exchange programs that utilize local resources and promote domestically and internationally using videos that match the target audience for promoting the "Nouhaku" that is a type of trip to stay in rural areas farming village.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries, Ministry of Land, Infrastructure, Transport and Tourism)

- Clearly recognize Japan's strengths in areas such as disaster prevention, super-aging society, and recycling-oriented economy, and work to support the development of overseas demand among the various social challenges that the world will face in the future at the Cool Japan Fund Inc. while importance of SDGs and ESG investment is increasing due to changes in the society and people's values.

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

- Create of sustainable tourism contents and promote the visit to Japan in order for Japan to be chosen as a tourist destination by travelers from all over the world with growing worldwide interest in sustainable tourism.

(Short-term, Medium-term) (Ministry of Land, Infrastructure, Transport and Tourism)

- Develop an environment for the promotion of a new lifestyle of workcation and promote sustainable tourism both domestically and internationally regarding the National Parks. Position the areas where carbon neutrality is being worked on ahead as "Zero Carbon Parks" and provide escort support in order to accelerate decarbonization in harmony with the preservation of the natural environment.

(Short-term, Medium-term) (Ministry of the Environment)

②Build a virtuous cycle between exports and inbound

(Current situation and challenges)

Exports and inbound are two wheels in CJ. Before the COVID-19, as an example, a virtuous circle was built for leading to new inbound tourism because people from all over the world who were interested in Japan through anime and manga visited Japan as inbound tourists, and after returning home, they continued to purchase Japanese products and promoted the attractiveness of Japan, leading to new inbound tourism. However, this cycle was collapsed due to the influence of the COVID-19.

As for inbound travel, a survey shows that Japan is the No. 1 country that people would like to visit after the end of the COVID-19. A number of countries have already announced the elimination or relaxation of border control measures. Japan has also announced a policy of further relaxation of border measures and just announced the resumption of foreign tourist acceptance on package tours with tour conductors from June 10 this year. In the future, we will continue to monitor the infection situation and aim to gradually accept people as usual. In anticipation of the upcoming full resumption of inbound tourism, we will quickly develop a high-value-added reception system that fully utilizes Japanese culture and attractions, and it is

necessary to rebuild a virtuous cycle of export expansion starting from inbound.

Exports have been strong during the COVID-19. In 2021, exports of agricultural, forestry, and fishery and food products will exceed 1 trillion yen for the first time and the demand for Japanese alcoholic beverages will exceed 100 billion yen. At the same time, it is important to build a virtuous cycle with inbound tourism starting from exports.

(Direction of measures)

- Execute the item group acknowledgement of the Revised Export Promotion Law, enhance the IP measures, strengthen the GPF (Global Farmers / Fishermen / Foresters / Food Manufacturers Project) functions based on the “Export Expansion Strategy of Agricultural, Forestry, Fishery and Food Products” compiled in May 2022.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Implement initiatives to comprehensively disseminate information to overseas such as searching of “Japanese food supporter”, Japanese food chefs in overseas, and recipes that utilize Japanese food ingredients by supporting for businesses working to expand and strengthen "Japanese food supporters" where people from around the world interested in Japan and those who have visited Japan can experience Japanese food for expanding the number of bases for disseminating Japanese food and food culture overseas and further increasing exports of Japanese agricultural, forestry, fishery and food products.

(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)

- Work proactively on improving awareness by promoting of the international promotion and Sake brewery tourism, supporting for participation in large-scale overseas exhibitions, and expansion of sales channels through matching support between export trading companies and wholesalers and alcoholic beverage manufactures based on the “Export Expansion Strategy of Agricultural, Forestry, Fishery and Food Products”. In addition, promote initiatives for branding by alcoholic beverage businesses to differentiate and add high values to products, and implement the dissemination and utilization of Geographical Indications (GI) and technical supports.

(Short-term, Medium-term) (Ministry of Finance, Ministry of Land, Infrastructure, Transport and Tourism)

- Promote the overseas development of broadcast contents by utilizing of DX effectively in collaboration with the Broadcast Program Export Association of Japan (BEAJ), broadcasters, relevant ministries, local governments, local enterprises and human resources based on the growth of video distribution and the diversification of the global viewing environment for promoting the attractiveness of Japan's regions and strengthening the soft power.

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

- Support for overseas expansion of content through promotion and localization (translation) for acquiring overseas demand and expanding the content market originated from Japan.

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

- Promote strategic translation and dissemination based on the structure of the publishing industry in the world of printed word culture for improving the presence of Japanese printed word works and enhancing the overseas expansion of Japanese books.

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

- Proceed the environment and system maintenance for attracting the international art fairs and auctions to Japan and customers of overseas markets toward the realization of an internationalization and revitalization of the Japanese art market.

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

- Conduct the visit to Japan promotion in response to changes in travel demand after the COVID-19 while dispelling concerns about travel to Japan by disseminating information regarding Japan's safety and security initiatives through the digital marketing by Japan National Tourism Organization (JNTO) and diplomatic missions abroad.

(Short-term, Medium-term) (Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Foreign Affairs)

- Improve tourism spots and regions as a core of cultural resources for promoting the development of cultural tourism spots, enhancing the attractiveness of cultural resources of Japanese heritage, and strengthening the dissemination based on the Cultural Tourism Promotion Act. Moreover, promote the high added-value as cultural tourism resources.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Land, Infrastructure, Transport and Tourism, Cabinet Office)

- Promote the development of high value-added accommodations, the discovery and refinement of tourism resources, and the cultivation of human resources toward the creation of high value-added inbound tourism destinations in rural areas.

(Short-term, Medium-term) (Ministry of Land, Infrastructure, Transport and Tourism)

- Expand the initiatives of the national park enjoyment project to national parks and quasi-national parks throughout Japan. Improve the accommodation environment and provide visitors with unique and emotional experience by promoting the natural experience activities under the revised Natural Parks Law, improving the landscape to remove the abandoned houses, promoting the workcation, and increasing the sustainability including the decarbonization.

(Short-term, Medium-term) (Ministry of the Environment)

③ Establish new business models utilizing digital technology

(Current situation and challenges)

While the COVID-19 restricts movement and gatherings, in CJ-related fields, new initiatives utilizing digital technology including the online distribution of events and concerts, online delivery services,

business meeting utilizing VR, and avatar utilization are spreading.

On the other hand, it is sad that the value of real events and experiences will increase as a progress of online events. For example, develop business targeting a wide range of people at online live events and core fans at real events. It is important to establish a sustainable business model by appropriately combining real and online operations to increase overall profitability and customer satisfaction.

(Direction of measures)

- Combine local characteristics and strengths with digital technology and support for demonstration projects undertaken by local enterprises to build new business models (creation of new businesses).
(Short-term, Medium-term) (Ministry of Economy, Trade and Industry)
- Proceed the strengthening of dissemination, creation of elaborate replicas, and content creations from the precise data measurement by digital technology for the cultural property utilization.
(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, Cabinet Office)
- Promote the creation of new tourism contents by combining the technology of XR and 5G with local tourism resources for strengthening of digital collaboration between the digital implementation of tourism fields and various fields.
(Short-term, Medium-term) (Ministry of Land, Infrastructure, Transport and Tourism)
- Conduct online simulated travel experiences (virtual trips) subjected areas that certified as “SAVOR JAPAN” for the purpose of attracting foreign visitors to Japan.
(Short-term, Medium-term) (Ministry of Agriculture, Forestry and Fisheries)
- Promote initiatives that contribute to business model innovation and strengthen the earnings foundation through diversification of revenue channels and expansion of customer experience regarding the performances in Japan with post-COVID.
(Short-term, Medium-term) (Ministry of Economy, Trade and Industry, relevant ministries) [Reposted]
- Support for disinfection, temperature measurement and ventilation at event venues to prevent transmission of the COVID-19 while conducting the event.
(Short-term) (Ministry of Education, Culture, Sports, Science and Technology, Ministry of Economy, Trade and Industry) [Reposted]
- Promote standardization and system development for the management of artworks and cultural properties to promote DX in art galleries and museums. In addition, support the introduction of blockchain technology to ensure traceability for the transparency improvement of art transactions and active market creations.
(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology)

④ Strengthening the ability of dissemination

(Current situation and challenges)

The CJ Strategy (2019) points out the importance of strengthening the ability of dissemination including storytelling, devising "entrances" based on the interests of others, and preparing "depths" based on the essence of Japanese culture.

Based on the change in values due to the COVID-19, it is conceivable to select and disseminate high-quality attractions that match the tastes and preferences of the other party, such as sustainability, nature, safety and security, and the environment while utilizing digital marketing methods in the private sector. In addition, based on the indication that Japanese culture is high-context and difficult to understand for foreigners, it is necessary to make continuous efforts to review the essence of Japanese culture and edit it in an easy-to-understand manner from the other's point of view in case of storytelling.

It is important to increase the ability of dissemination throughout the country. In addition to online distribution through paid subscription services and SNS, it is necessary to take a multifaceted approach such as actively utilizing the networks of people who have visited and studied in Japan and the human networks of diplomatic missions abroad, and strengthening overseas development by developing human resources who are familiar with foreign business practices and languages. In particular, international students love Japan and often remain in Japan after graduation or continue to be avid fans of Japan after returning to their home countries, and are expected to be strong partners in Cool Japan initiatives.

(Direction of measures)

- Promote collaboration with CJ affiliates and initiatives to disseminate information to the world by utilizing digital technology in regions based on the Digital Garden City Nation Concept.

(Short-term, Medium-term) (Cabinet Office, Cabinet Secretariat, Ministry of Internal Affairs and Communications, Ministry of Foreign Affairs, relevant ministries) [Reposted]

- Support initiatives by local governments to create and disseminate "food culture stories", which is easy to understand the cultural background and clarify cultural values, and to form model cases regarding the distinctive food culture inherited in the region and traditional Kaiseki cuisine that is said to have its origins in the tea ceremony.

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

- Aim to register the traditional Japanese sake brewing technique using koji mold as a UNESCO Intangible Cultural Heritage. This will pass on the technology to the next generation and increase the global recognition of the technology.

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

- Grow and raise the level of entire Japanese society by the cultural power by developing the large-scale project "Japan Cultural Expo", which is disseminating Japan's beauty and mind including the dissemination utilizing the digital content and virtual experience toward the Expo 2025 Osaka, Kansai, Japan, throughout the country.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, relevant ministries)

- Disseminate the attractiveness of national parks with utilizing new digital technology of VR based on the characteristic of individual national parks. Strengthen the ability to disseminate by enhancing the environment that allows national park users to disseminate on their own along with disseminating the appeal of national parks domestically and internationally through a website linked to the JNTO website and SNS.

(Short-term, Medium-term) (Ministry of the Environment, Ministry of Land, Infrastructure, Transport and Tourism)

- Promote understanding of Japan, foster a sense of pro-Japan sentiment, and lay the groundwork for future commercial overseas expansion by providing broadcast content such as Japanese dramas, animation, documentaries, movies, variety shows for free of charge in countries and regions mainly where Japanese content is not being broadcast (South Asia, Oceania, Latin America, the Middle East, Eastern Europe, Africa, etc.), and broadcasting and distribution of programs in those countries and regions.

(Short-term, Medium-term) (Ministry of Foreign Affairs)

- Provide videos of video contest held by relevant ministries to the Ministry of Foreign Affairs and try to disseminate as the Japan's attractiveness at diplomatic missions abroad. At that time, consideration should be given to the handling of copyrights as to enable flexible utilization at diplomatic mission abroad.

(Short-term, Medium-term) (Cabinet Office, Ministry of Foreign Affairs, relevant ministries)

- Utilize more of the ability to disseminate of Japan House. At that time, pay attention not only to the dissemination aspect but also to the commercial distribution aspect so that the dissemination at Japan House will lead to business.

(Short-term, Medium-term) (Ministry of Foreign Affairs, Cabinet Office)

- Promote inter-industry collaboration in CJ-related fields to recognize and introduce outstanding initiatives in accordance with supporting the initiatives for the matching of various industries related to CJ.

(Short-term, Medium-term) (Cabinet Office)

- Strengthen the environment of film location enticements by cooperation with local governments and collaboration with film commissions in order to connect to visit to Japan promotion by utilizing the successful works and local revitalization of film location enticements.

(Short-term, Medium-term) (Cabinet Office, Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Economy, Trade and Industry)

- Promote the internationalization of universities, which is a foundation to accept excellent students, and enhance the environment to accept international students because international students play a significant role in promoting mutual understanding and friendship with other countries, and disseminating the various attractions of Japan to foreign countries.

(Short-term, Medium-term) (Ministry of Education, Culture, Sports, Science and Technology, relevant ministries)

⑤ Strengthening the foundation to support CJ

(Current situation and challenges)

The CJPF is working on information sharing, various events, and information dissemination both domestically and internationally for promoting the mutual collaboration among members across various regions and fields. It is necessary to focus on strengthening the network between affiliates in the future (refer to the “(1)③Participation in a place where CJ affiliates can connect and mutually improve each other's work”).

Many of Japan's attractiveness exists in the rural areas. In order to strengthen CJ initiatives, it is essential to strengthen collaboration with local governments and further utilize the attractiveness of local regions.

CJ Fund Inc.'s extensive network and knowledge through the investments is an important asset to all CJ affiliates so that it is necessary to strengthen collaboration between relevant ministries and agencies and CJ Fund Inc. by utilizing these. In addition, the collaboration among CJ, relevant ministries and agencies, and related organizations needs to strengthen to build a virtuous circle in CJ's initiatives by disseminating information regarding the Japan's attractiveness that CJ affiliates have and utilizing the network and knowledge that diplomatic missions abroad have.

(Direction of measures)

- Focus activities on four points in the CJPF for strengthening the role as a place for collaboration and co-creation by widely incorporating members and CJ affiliates both domestic and international; (1) the mutual dissemination and sharing information, (2) the mutual complementation of the strengths and weaknesses of CJ affiliates, (3) support matching between CJ affiliates, and (4) the active utilization of foreigners who love Japan.

(Short-term, Medium-term) (Cabinet Office) [Reposted]

- Share the know-how through awards for advanced cases, provide a forum for interaction and exchange of ideas among communities that are actively involved in the project for promoting co-creation with communities in CJ-related fields.

(Short-term, Medium-term) (Cabinet Office, relevant ministries) [Reposted]

- Provide information regarding the global perspectives and new initiatives to CJ Fund Inc., share information with members who participate for CJPF, and support collaboration for deepening the collaboration among CJ Fund Inc., relevant ministries, and related organizations while utilizing the CJPF.

(Short-term, Medium-term) (Cabinet Office, Ministry of Economy, Trade and Industry)

- Disseminate actively and continuously Japan's diverse attractiveness to the world by conducting lectures, performances, and exhibitions regarding the wide range of fields including the traditional culture, pop culture, rural attractions, and Japanese food while utilizing online according to the needs of each country by diplomatic missions abroad and the Japan Foundation (JF).

(Short-term, Medium-term) (Ministry of Foreign Affairs)

9. Work Schedule