Provisional Translation

New International Standards Strategy

(Japan's international standardization strategy for solving challenges in the international community)

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Intellectual Property Strategy Headquarters

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Introduction

(Challenges facing the international community and Japan)

In recent years, the international community and Japan have faced diverse challenges that cannot be adequately addressed within conventional frameworks.

For example, norms such as climate change countermeasures and respect for human rights require the international community to collaborate and tackle them over the medium to long term; however, sustainability of such initiatives has become a challenge in the short term.

As each country faces the necessity of addressing both the challenge of complying with norms and strengthening its economy, it is also confronted with the risk of disruption to global supply chains due to the increasing complexity of the international situation and changes in socio-economic structures.

Furthermore, it is becoming increasingly clear that traditional regulations and systems are insufficient to provide a sufficient and rapid response to the impacts of rapid technological innovation, including generative AI.

Looking domestically, there are a multitude of challenges: population decline and aging, reduced purchasing power due to prolonged economic stagnation, and the need to adapt to rapid technological innovations like generative AI.

(The role of international standards)

The strategic use of international standards is a powerful option for achieving transitions toward realizing social and environmental goals pursued under the consensus of the international community, strengthening supply chains through global collaboration, and enabling societies and industries to adapt to rapid technological innovations.

With innovation diversifying and accelerating, it is increasingly important to strengthen engagement with international standards developing organizations like ISO, IEC, and ITU, while also actively utilizing sector-specific forum standards and regional standards.

The importance of “economic security” – safeguarding national interests such as Japan’s peace, security, and economic prosperity through economic measures – is also increasing. It has become crucial to ensure autonomy and to secure, maintain, and strengthen advantages and indispensability through international standards.

(Resolution of social issues and market creation through international standards)

Against this backdrop, Japan's newly formulated International Standards Strategy (the “New International Standards Strategy,” hereinafter referred to as “this Strategy”) serves as the fundamental policy to lead the resolution of social issues and market creation through international standards activities. It aims to contribute to solving challenges faced by the international community and Japan, as well as to Japan's economic security.

Following this strategy, in fields that are deeply relevant to solving challenges in the international community and where Japan possesses strengths such as disaster prevention, energy, and quantum technology, the public and private sectors will collaborate to lead the development of standards and utilization of the standards for solving issues, aiming to create markets.

To achieve this purpose, discussions encompassing the entire socio-industrial system are required, including not only traditional, specific standardization related to product and service specifications and quality requirements, but also the definition of new values and norms.

(Reinforcement of the standard ecosystem)

To further enhance Japan's centripetal force in international standards activities, it is essential not only to foster awareness reform and behavioral change within the industry and academic community, but also to strengthen domestic human resource development in related fields, reinforcing supporting institutions such as standards development, certification bodies, testing institutions. Additionally, it is indispensable to establish a headquarters function that connects diverse stakeholders involved in international standards and articulates a future vision.

This strategy aims to communicate Japan's contributions to solving social challenges both domestically and internationally, while also calling for collaboration with like-minded nations in related standardization activities. It is expected that cooperation with countries and regions at diverse social and industrial stages will pave the way for new solutions to global challenges.

By advancing this strategy as a unified effort, each entity is expected to promote the dissemination and expansion of industrial and business strategies that effectively utilize international standards. This will also accelerate the swift and safe societal implementation of high-added-value new technologies, thereby contributing to solving social challenges within Japan and enhancing the international competitiveness of Japanese industries.

Chapter 1: Initiatives by Government and Private Sector to Date and Trends in Japan and Abroad

(1) Japan's contributions to international standards

In Japan, the Japanese Industrial Standards Committee (JISC) holds a position as one of the standing directors within international standardization bodies such as the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Furthermore, the Ministry of Internal Affairs and Communications (MIC) has for many years consistently occupied a significant proportion of key positions, including Chairman and Vice Chairman within the International Telecommunication Union (ITU), thereby making substantial contributions to their activities.

Japan's international standardization efforts, based on its industrial competitiveness and technological capabilities, have been advanced through the collaboration of the Ministry of Economy, Trade and Industry (METI), the Ministry of Internal Affairs and Communications (MIC), other concerned government ministries, industry, the academic community, and related organizations. Among these, the long-standing and active participation of Japan's international standardization community—comprising thousands of corporate experts, researchers from academics and national research and development agencies—has been fundamental to supporting Japan's international standardization activities.

In particular, Japan holds 84 posts (4th globally) in ISO and 24 posts (3rd globally) in IEC for the position of “International Secretary,” which plays a crucial role in issuing international standards. This demonstrates that Japan's expertise and outreach capabilities are highly valued within the international community. In addition, Mr. Seizo Onoe (former Chief Standardization Strategy Officer, Nippon Telegraph and Telephone Corporation) assumed the position of Director of the Telecommunication Standardization Bureau at the ITU in January 2023.

Furthermore, with the recent acceleration of initiatives aimed at solving global challenges such as climate change countermeasures, biodiversity conservation, and respect for human rights, the development of international standards has become a crucial means to promote behavioral change toward advancing sustainability.

Japan has also actively participated in international consensus-building through the promotion of renewable energy and the standardization of environmental impact reduction technologies.

For example, Japan has a proven track record of playing a leading role in the drafting and proposal stages of International Standards, through efforts such as systematizing evaluation methods for environmental impact assessments and promoting standardization regarding the reliability and safety of solar power systems.

Furthermore, in cutting-edge fields such as AI, digital technology, IoT, and next-generation communications, other nations including Europe, the United States, China, and Asian countries are also advancing international standardization efforts due to their critical importance.

Leveraging the industry-academia-government collaborations framework cultivated to date, Japan is also pursuing initiatives in several fields that emphasize the importance of standardization from the research and development phase.

For example, Japan has actively participated in standard development from the R&D phase in areas such as smart manufacturing, collision avoidance methods, and operation management systems for Beyond Visual Line of Sight (BVLOS) flights of unmanned aerial vehicles, automated driving technology in the mobility sector, and the development and operation of smart cities-related infrastructure.

Therefore, Japan has consistently played a significant role in international standards activities, leveraging its expertise and advanced technological capabilities across various fields. Moving forward, Japan is expected to leverage its accumulated experience to spearhead discussions within the international community on topics such as sustainability and advanced technology, thereby contributing its technological prowess and insights to the global community.

In an era where the formation of international standards influences each nation's competitiveness and global influence, Japan’s public and private sectors will closely work together to advance strategic standardization, playing a pioneering role in solving global challenges and creating new markets.

(2) Progress and achievements of public-private initiatives and status overseas

(Review of public and private sector initiatives)

Japan has achieved progress in many areas based on the “International Standards Comprehensive Strategy” formulated in 2006. This progress has been made through the coordinated efforts of government ministries and private organizations to advance necessary measures.

Specifically, we have incorporated its technologies and expertise into the international standards-setting process through unified public-private initiatives, including active participation in international conferences and promoting alignment with domestic standards.

Efforts have also been made to strengthen the foundation for advancing standardization activities through public-private collaboration, including revisions to the Industrial Standardization Act, the establishment of the “Standardization System for Creating New Markets”, and the promotion of standardization activities by companies and industry associations.

Furthermore, the “Japanese Standard Acceleration Model” compiled by JISC in 2023,

as well as policy documents from concerned ministries and agencies, state that strategic activities encompassing standardization and certification must be implemented from the R&D stage, thereby requiring efforts to strengthen industry-academia-government collaborations.

As part of science, technology, and innovation policy, Japan has also outlined a policy to promote international standardization, focusing on key areas directly linked to solving societal challenges (e.g., AI, quantum).

However, some have pointed out that Japan's international standardization efforts still rely heavily on the personal activities of researchers and others.

At the same time, there is still room for improvement in several areas: enhancing corporate management's understanding of international standards; establishing frameworks to integrate international standardization activities with academia from the R&D phase; evaluating academia's standardization activities; strategically cultivating international standardization human resources; and promoting the adoption and dissemination of standards.

From the holistic perspective, it is also necessary to strengthen frameworks to sustainably follow up on the formulated international standardization strategy and ensure the PDCA cycle functions effectively.

(Overseas situation)

The field of international standards has seen a growing expansion in cross-disciplinary areas in recent years. These areas—such as innovative technologies like digital and generative AI, responses to societal challenges like climate change, and economic security—cannot be addressed by individual companies alone, nor by a single industry or organization.

Today, for example, the scope of international standardization extends beyond traditional products and services to include entire systems, as well as integrated systems of systems. Developing various standards, including interfaces, is essential for ensuring interoperability and system integration across entire value chains, as well as for creating new services. Failing to respond appropriately to this trend could result in missed opportunities for market creation and reduced competitiveness.

Looking at trends in other countries, Europe, the United States, and China have established national strategies for international standards activities, strategically advancing these efforts through collaboration between government agencies and industry.

For example, in Europe, the “New Approach” and similar initiatives have established

a framework [1] organically linking regulations with international standards and certification systems. These efforts aim to secure leadership not only in the European single market but also in international markets, thereby maintaining global influence.

The United States promotes market-driven standardization while reflecting market characteristics based on diversity. From a security perspective, it also advances a national-level standardization strategy concerning critical and emerging technologies.

Meanwhile, China positions standardization as central to its national strategy, seeking to expand its influence in international standardization through government-led initiatives. Particularly in key areas like digital and communications technologies, it is accelerating collaboration with companies and research institutions to promote its own standards and secure leadership at international conferences.

In this way, each nation is placing standardization activities at the core of its policy, promoting national-level standardization strategies to address challenges that transcend traditional single areas—such as the digital sphere, generative AI, green technologies like climate change countermeasures, and economic security against the backdrop of geopolitical risk.

(Direction of Japan's initiatives)

Japan faces risks such as market contraction due to population decline and aging, delayed adoption of technological innovations like DX and generative AI, and intensifying geopolitical conflicts.

Under these circumstances, active participation in international standards activities is essential to ensure the safety of our citizens while simultaneously expanding our presence in global markets.

Against this backdrop, it is necessary to create new markets through international standards activities, enhance the competitiveness of companies and research institutions, and promote social implementation. It is particularly important to strengthen efforts that consider implementation, including standardization and certification, from the early phase of R&D, and to deepen industry involvement, including management. Furthermore, public-private collaboration is required to rebuild frameworks for human resource development and follow-up, ensuring the continuous functioning of the PDCA cycle.

Through the strategic use of international standards, it aims to simultaneously achieve

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[1] In this strategy, it refers to the European regulatory framework based on the “New Approach Directives on technical harmonization and standards” following the 1985 European Council Resolution, and the “Global Approach Directives on certification and testing” following the 1989 Council Resolution, which complement them.

sustainable economic growth and ensure security while flexibly addressing structural challenges such as domestic population decline and geopolitical shifts, thereby contributing to solving issues facing the international community.

Chapter 2: Strengthening Japan's Initiatives to Solve Challenges through International Standards

(1) Directions for strengthening foundation to realize the future vision

As outlined in the "Introduction", Japan's desired state can be achieved by solving domestic and international challenges and creating markets through International Standard[2] with public-private partnership. As shown in Figure 1, these efforts involve the following:

"Strategy and Governance", "Standard Ecosystem" and "Initiatives by Industry, Academia, Government, and Finance" as domestic efforts, while also combining "International Collaboration", "Selection and Support of Key Domains and Strategic Domains" and "Monitoring and Follow-up" to implement these initiatives effectively.

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[2] For the purposes of this strategy, the terms "standard and specifications," "international standards," "standardization," "international standardization," and "international standards activities" are organized as follows. Note that this organization may not align with definitions established by ISO/IEC or JIS; it is solely a convenient classification for the purposes of this strategy document.

① Standard/Specification: In JIS, a "standard" is defined as "an arrangement established for the purpose of unifying or simplifying things and non-things, so that benefits or convenience may be fairly obtained among relevant parties." while "specification" is defined as "a document that establishes rules, guidelines, or characteristics for activities or their results, intended for common and repeated use to achieve optimum order in a given situation, established by consensus and approved by a generally recognized body." Specifically, "specification" denotes a documented standard; however, this strategy does not make a specific distinction between "standard" and "specification."

② International Standards: Standards developed by the International Organization for Standardization (De jure standards, Forum standards) and De facto standards that emerge when specific products or services become widely adopted worldwide (regardless of consensus).

③ Standardization: According to JIS, "the activity of establishing descriptions for common and repeated use, aimed at achieving optimal order in a given situation concerning existing or potential problems." It is further defined as "comprising the process of creating, publishing, and implementing standards." In addition to this content, this term in this strategy also includes the formation of De facto standards.

④ International Standardization: According to JIS, this refers to "standardization in which organizations directly related to standardization in all countries can participate." However, this strategy broadly encompasses the creation, publication, and implementation of standards for the aforementioned "International Standards".

⑤ International Standards Activities: This includes activities that pursue international standardization, as well as activities that do not ultimately pursue international standardization, from perspectives such as management, marketing, and social implementation.

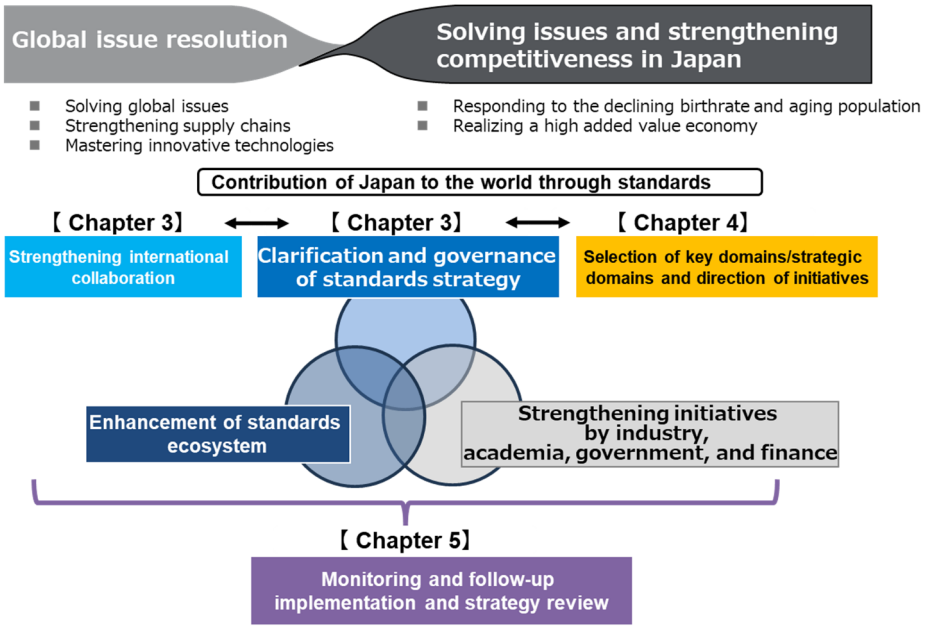

Figure 1: Overview of initiatives under this strategy

While continuing to actively promote compliance with de jure standards in international standardization bodies[3] like ISO/IEC/ITU, where Japan has been actively engaged and where various initiatives are expected going forward, we will also pay attention to various forum standards, proprietary standards, and de facto standards, whose activities have intensified in recent years. We will advocate for an effective combination of these approaches to contribute globally.[4]

Additionally, it is essential to recognize that international standardization is not an end in itself, but rather a tool for solving problems and creating markets. Based on this

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[3] The international standardization bodies are also referred to as Standards Developing Organization (SDO). However, this strategy broadly encompasses not only organizations like ISO that develop De jure standards, as described later, but also organizations that develop Forum standards, including the Institute of Electrical and Electronics Engineers (IEEE). Note that this classification is solely for the convenience of this strategy document.

[4] Regarding "De jure standards," "Forum standards," and "De facto standards," this strategy classifies them as follows. Note that these classifications do not necessarily correspond to uniquely standardized definitions.

① De jure standards: These are established through consensus among the government, nations, or standard-setting institutions and possess a public character.

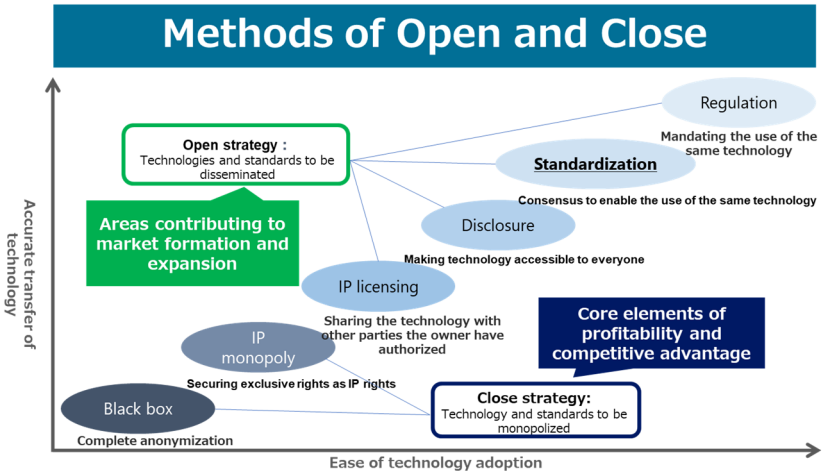
② Forum standards: These are established through consensus among companies and experts involved in specific technologies or product fields and function as loose common rules.

③ De facto standards: These emerge when specific products or services become widely adopted globally without consensus.

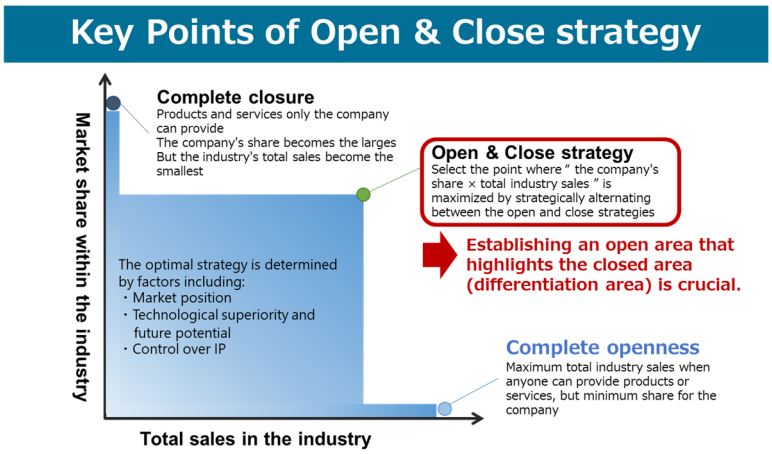
understanding, a comprehensive international standards strategy is indispensable across various areas and sectors that includes the deliberate choice not to pursue international standardization. This strategy must incorporate the building of international partners and the perspective of economic security, which will be discussed later.

For example, based on the Open & Close Strategy, it is necessary to combine or appropriately differentiate various elements such as regulatory compliance, standardization activities, intellectual property management, and know-how confidentiality. Utilizing standards can be considered as a powerful tool for this purpose (see Figures 2[a] and [b]).

Furthermore, when considering standardization, a framework for conformity assessment (certification) of that standard should be examined simultaneously, with an eye toward its dissemination and implementation, while also seeking cooperation from specialized services.



[Figure 2(a): the Open & Close Strategy as a strategic tool for market creation (Source: METI)]



[Figure 2(b): the Open & Close Strategy as a strategic tool for market creation (Source: METI)]

To propose international standards from Japan, it is desirable that the proposed standard has been thoroughly discussed and standardized as a domestic standard. On the other hand, when interoperability is ensured for Japan, international standardization will be promoted not only for standards established domestically in Japan but also for standards established in other countries, while paying attention to interoperability. Additionally, in specific fields where the convenience for Japanese companies is recognized, measures enabling the acquisition of certifications from various countries domestically (utilizing international mutual recognition systems)[5] will also be encouraged.

(2) Perspectives on economic security

Regarding efforts to advance international standards, measures will be taken based on the perspectives of ensuring autonomy, securing, maintaining, and strengthening superiority and indispensability, and maintaining and strengthening a free, fair, and equitable international economic order.

For example, from the perspective of ensuring autonomy and strengthening supply chain resilience, collaboration with allied countries through the utilization of international standards could contribute to the stable supply of critical materials.

In addition, concerns regarding information leakage through overseas testing of Japan's products and services, as well as risks of malicious interference and information leakage posed by digital architecture, goods, and services entering Japan, can be mitigated by fostering and strengthening domestic certification authorities, collaborating with and

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[5] Mutual recognition refers to participating organizations establishing specific conditions and mutually recognizing the results of conformity assessment (certification). In the context of international mutual recognition under this strategy, it includes the following:

① Mutual Recognition Agreement (MRA) between governments: This involves the government mutually recognizing and accepting the results of conformity assessments conducted in the partner country as equivalent to those conducted domestically, provided they meet the technical standards of the domestic mandatory regulations (e.g., the Japan-EU MRA [Agreement between Japan and the European Community on Mutual Recognition of Conformity Assessment]).

② MRA or Multilateral Recognition Agreement between accreditation bodies: This involves accreditation bodies mutually confirming the technical equivalence of each other's accreditation activities and accepting each other's conformity assessment results (e.g., the International Laboratory Accreditation Cooperation [ILAC], MRA, International Accreditation Forum [IAF] MLA).

③ Mutual Recognition among conformity assessment bodies: This involves conformity assessment (certification) bodies mutually confirming the technical equivalence of testing and certification, and accepting conformity assessment (certification) results (e.g., IECEE/CB Scheme, IQNet)

utilizing reliable institutions, and leveraging regulatory and certification systems. Furthermore, in the context of the relationship between standards and patents, such as the Standard-Essential Patent (SEP) and patent pools, patent policies can significantly impact the adoption and competitiveness of standards. Therefore, the relationship between standards and patents, including the implementation status of FRAND terms, will be closely monitored.

(3) Strengthening the basic roles of stakeholders and headquarters functions

Regarding the promotion of international standards activities, the government will focus on establishing foundational frameworks while engaging primarily with specialized organizations such as businesses, universities, etc., a national research and development agency, standards development organizations, accreditation bodies, certification bodies, and testing institutions. Through collaboration with financial institutions, citizens, and NPOs, synergistic effects are expected to be achieved that surpass the impact of individual efforts by each entity.

However, as area-crossing standardization activities expand and to effectively engage in international standards activities from new perspectives such as economic security, it is essential to advance these activities as an all-Japan effort. This requires moving beyond traditional collaboration among stakeholders to achieve unified cooperation between the government and the private sector, including leadership by the government when necessary.

Therefore, monitoring and follow-up will be conducted through public-private collaboration. At the same time, the headquarters function will be strengthened to discuss revisions to the measures, key domains, and strategic domains of this strategy, incorporating economic security perspectives, through a centralized information platform for international standards activities.

（Business operators and industry organizations）

Business operators and industry organizations, as key players in international standards activities, are expected to thoroughly instill the awareness that standards and certifications are essential tools for management and marketing. They should strategically leverage these tools and allocate resources such as human resources and funding to international standards activities.

In doing so, to sustain International standards activities over the medium to long term, efforts are expected to focus on developing and securing a continuous supply of standardization human resources within organizations (e.g., personnel who consider how to utilize standards as part of corporate business strategy, personnel who draft standards proposals and negotiate at international conferences, personnel who work to promote established standard) – including the development of young

professionals and the clarification of appropriate personnel evaluation and career paths within the organization.

In addition, it is expected that the appropriate utilization of specialized services such as testing and certification will contribute to strengthening the competitiveness of the Japanese industry.

It is also expected that proactive disclosure of information regarding international standards activities will promote investment in companies engaged in such activities.

Particularly for startups, including Deep Tech,[6] proactive involvement in international standards activities is expected, as international standardization can create entirely new markets.

(Universities, etc./National research and development agencies)

Universities, etc. and national research and development agencies are expected to serve as key players in international standards activities by integrating them with R&D.

To sustain these activities over the medium to long term, they are expected to move beyond relying on voluntary efforts by individual researchers, instead implementing appropriate organizational evaluation of standards activities, cultivating standards human resources, including young researchers, and providing broad educational opportunities.

National research and development agencies, in particular, should actively lead international standards activities, given their public nature, while also fostering human resources and providing educational opportunities.

[6] This technology is based on scientific discoveries made through research in specific natural science fields. If its commercialization and social implementation can be realized, it has the potential to impact society by solving economic and social challenges that require resolution at the national and global levels.

（Specialized services）[7]

Specialized services for standardization, certification, testing, and related activities are expected to enhance Japan's international standards activities. As specialized organizations for standards, certification, testing, and related matters, they are expected not only to provide advice to business operators and industry organizations and offer certification and testing services, but also to contribute through human resources provision and solution functions.

In this case, they are expected to function as a source of highly versatile and specialized standardization personnel through measures such as securing human resources.

In particular, accredited industrial standards developing organizations should play a role in the swift formulation of national standards. It is also expected that proprietary standards, to serve as a bridge to international standardization through proprietary standards, such as JSA standards by The Japanese Standards Association (JSA).

(Financial Institutions and Investors)

Financial institutions and investors are expected to support the international standards activities of operating companies through investment and financing activities that evaluate such activities as part of business strategy, based on appropriate disclosure of information regarding these activities and, in particular, the story of medium- to long-term value creation resulting from them.

Given the inherent difficulty for financial institutions and investors to assess the business strategy value of a company's international standards activities, the evaluation is expected to be conducted based on comparable standards, in

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[7] The term “specialized services” as used in this strategy refers to organizations and institutions that conduct the following types of testing, inspection, certification, and accreditation:

① Testing: The determination of conformity to one or more specified requirements of conformity assessment (certification) in accordance with procedures (ISO/IEC 17000)

② Inspection: The examination of product design, products, processes, or fittings, and the determination of conformity to specified requirements or conformity to general requirements based on professional judgment (ISO/IEC 17000).

③ Certification (conformity assessment): Third-party attestation regarding products, processes, systems, or personnel (ISO/IEC 17000)

④ Accreditation: Third-party attestation indicating that a conformity assessment body has been formally demonstrated to be competent to carry out specific conformity assessment activities (ISO/IEC 17011)

cooperation with governments and companies.

Furthermore, recognizing that finance acts as a gatekeeper for all industries and can contribute to the international standardization of non-financial disclosures, financial institutions and investors themselves are expected to proactively engage in collaborative efforts with relevant stakeholders.

(Citizens)

Based on an understanding of the significance and purpose of standards and certification, Japanese citizens are expected to promote the international standards activities of businesses and other entities through their consumption of goods and services that utilize such standards and certification.

(Government)

Upon thoroughly recognizing that standards serve as a tool for advancing various policies, the government will support the efforts of the aforementioned entities in international standards activities and promote collaboration among them to enable each to fulfill the expected roles. It will also implement foundational infrastructure development, awareness campaigns, and international collaboration that private entities find difficult to undertake.

The government will also enhance its own expertise and organizational framework for international standards activities. It will also ensure that standardization strategies are considered from the R&D phase in government-led research and development projects. In public procurement, it will actively procure goods and services that utilize international standards and certifications, thereby promoting their use. Furthermore, the government will take the lead in international standards activities when entrusting activities to the private sector could lead to falling behind in international competition or putting economic security at risk.

Additionally, appropriate monitoring and follow-up based on this strategy will be implemented to facilitate Japan's overall international standards activities.

Chapter 3: Specific Measures (See appended table for details)

(1) Strengthening initiatives by industry, academia, government, and finance

(a) Encouraging the business, academic, and financial communities

To widely disseminate the significance of international standards activities to the business community, academic community, and financial community, and to integrate corporate business strategy and academic research and development with international standards activities, an outline of this strategy will be created, disseminated through public-private seminars, as well as efforts will be made to incorporate the content of this strategy into national strategies and other initiatives undertaken by various ministries and agencies.

Additionally, further encouragement will be given for companies to establish Chief Standardization Officers (CSO) and include information in integrated reports, while also promoting the proliferation of understanding among companies and investors.

Furthermore, in specific fields such as agriculture, forestry, fisheries, and food; geographic information; quantum technology; perovskite solar cells; hydrogen and ammonia; bio-based manufacturing; and the data collaboration infrastructure, strategies will be formulated and networks will be built.

(b) Shifting the perspective of corporations, research institutions, and the government.

There is significant potential for integrating international standards activities with corporate business strategy. Through public-private partnerships and digital platforms, the government will promote diverse success cases, cost-effectiveness data, and other information. Regarding successful cases in particular, the government will highlight actual examples in which the industry adopted international standards led by Japan, contributing to market creation and other outcomes.

In addition, efforts will be made to promote appropriate evaluation of international standards activities by staff at national research and development agencies. Universities will also be encouraged to integrate research and development with international standardization activities at an early stage and to evaluate them appropriately. Meanwhile, educational programs will be developed based on dissemination and demonstration activities at various academic societies related to standardization.

Additionally, based on the accreditation system for the Specific New Demand Development Project Activity Plan established under the revised Industrial Competitiveness Enhancement Act passed during the 2024 ordinary session of the National Diet, the government will support private companies, universities, and academia in formulating the Open & Close Strategy from the R&D stage; it will also

undertake awareness-raising activities concerning the consideration of the Open & Close Strategy from the R&D stage.

Moreover, awards recognizing human resources and organizations with outstanding achievements in standardization activities will continue. Support for surveys leading to standardization and awards will also continue to be promoted in specific sectors such as the telecommunications field, medical devices, agriculture, forestry, fisheries, and food, as well as services.

Meanwhile, the government itself will thoroughly recognize that international and domestic standards are effective tools for implementing various policies. To this end, the government will share successful cases and select areas in which to take the lead proactively.

(c) Utilizing standards in public procurement and subsidies.

Based on provisions such as the respect clause[8] for Japanese Industrial Standards (JIS) stipulated in the Industrial Standardization Act, and to encourage standard development and certification acquisition through public procurement and subsidies, the government will assess the utilization status of standards and certifications—including those from international organizations—in public procurement and subsidies both domestically and internationally. It will also ensure thorough implementation across ministries and agencies of the use of national standards such as JIS and JAS, as well as international standards, in procurement and related activities, while monitoring the progress and achievements.

(d) Incorporating standardization from the R&D stage.

Since it may be premature to begin considering standardization only after R&D is complete, government ministries and agencies should be urged to incorporate standardization at an early stage within their R&D support programs, and the progress and achievements on this should be monitored.

Furthermore, in specific fields such as Beyond 5G, the Green Innovation Funding, and maritime, port, and airline technologies, where standardization efforts have already been undertaken from the R&D stage with market creation in mind, these

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[8] Article 69 of the Industrial Standardization Act (Act No. 185 of 1949) stipulates that "When the national government and local government bodies establish technical standards concerning mining and industry, specify specifications for industrial products they procure, or otherwise establish certain standards concerning the matters listed in each item of Article 2, Paragraph 1 in the course of performing their duties, they shall do so with due regard to Japanese Industrial Standards."

initiatives will continue to be promoted.

(e) Enhancing the effectiveness of support from the government.

For projects where international standardization is the primary or partial objective, analysis of their effectiveness will be conducted to maximize cost-effectiveness by efficiently utilizing limited resources (wise spending) from the government and private resources in international standards activities.

(2) Enhancing the standard ecosystem

(a) Reinforcing the human resource development system.

The development of various types of standardization human resources and the formation of teams with diverse talent are critical for sustained International standards activities. Therefore, the government will facilitate the development of standardization human resources through a cross-cutting digital platform.

Additionally, efforts will be made to deploy the Standardization Human Resources Directory (STANDirectory), expand it horizontally starting from model projects at universities, etc., provide training for standardization personnel, and establish frameworks to evaluate standardization activities within academia.

Furthermore, in specific fields such as the telecommunications field, medical devices and regenerative medicine products, agriculture, forestry, fisheries, and food, BIM/CIM and construction, and airline decarbonization, the creation and education of the required skill sets and programs/curricula for standardization human resources will be pursued.

(b) Developing and strengthening specialized services and increasing their utilization.

Developing and strengthening specialized organizations involved in standards, such as standards development, certification, and testing, provides options for utilizing external human resources and services beyond their own organizations. This applies not only to large corporations but also to SMEs, startups, and others pursuing domestic and international standardization. Ultimately, these efforts are expected to enhance Japan's overall international standards activities.

Specifically, for SMEs and startups to engage in international standardization, they must be able to readily access specialized human resources and specialized services. Furthermore, even large corporations can enhance the credibility of their products and services by adding transparency through external certification and accreditation processes.

Therefore, through the creation of a platform that makes these specialized services

more visible, standards development, including domestic and proprietary standards, as well as the utilization of certification and testing services will be promoted. This will also facilitate collaboration across areas among specialized service providers. Furthermore, in collaboration with specialized organizations, support for standardization utilization by medium-sized companies, SMEs, and startups will be sustained and strengthened. Additionally, efforts will be made to enhance domestic certification authorities and testing institutions' compliance with overseas regulations through promoting collaboration with and acquisitions of foreign certification bodies. Concurrently, strengthening will be pursued through human resource development for GX-ETS Phase 2 readiness and fundamental efficiency improvements in certification operations. Further efforts will be made to expand the potential possibility of utilization of certification authorities. Support will also be provided to promote the use of international mutual recognition and enhance domestic testing facilities.

Moreover, from an economic security perspective, the possibility of utilization of domestic certification and testing institutions will be analyzed.

(c) Promoting regulations, standards, and certifications in an integrated manner.

The integrated promotion of regulations, standards, and certifications in Europe (known as “New Approach”) can enhance the effectiveness of standards, enable flexible regulatory reviews, reduce government enforcement costs, and contribute to strengthening international competitiveness. Meanwhile, the benefits of non-legally binding standards should also be fully leveraged.

Therefore, regarding the New Approach, the advantages and disadvantages should be systematically analyzed, and integrated promotion should be encouraged in areas where the benefits are significant.[9]

[9] For example, there is a case where, in conjunction with international standardization related to the quality of care services, consideration of a risk-based certification scheme has begun, based on the current law framework.

(3) Clarification and governance of standards strategy

(a) Establishing a public-private partnership platform to perform headquarters functions.

In addition to the collaboration between relevant industries and concerned government ministries in pursuing activities across various areas of international standards, a public-private partnership forum will be established. This forum will undertake cross-disciplinary monitoring and follow-up, including evaluation, analysis, and information sharing, as well as strategic review, to ensure swift and appropriate responses to issues with strong externalities—such as cross-disciplinary fields, emerging areas, or economic security—that are difficult for individual industries to address alone. At the same time, public-private networks at the government and private overseas offices and overseas diplomatic establishments will also be strengthened.

In addition, public-private partnerships will be sustained and strengthened in specific fields such as the telecommunications field, fusion, agriculture, forestry, fisheries, and food, quantum technology, perovskite solar cells, hydrogen and ammonia, bio-based manufacturing, the data collaboration infrastructure, construction machinery and architecture, ports, airline decarbonization, water and sewage, and climate change, circular economy, and nature positive initiatives.

(b) Building frameworks for sharing and matching knowledge, expertise, and human resource information.

In addition to relevant industries and concerned government ministries sharing knowledge, expertise, and human resources information regarding international standards activities across various areas, a framework, such as a digital platform, will be established. This platform will centrally aggregate information on international standards activities across diverse fields and details on specific international standards, including contact points for inquiries. It will facilitate cross-sectoral sharing of expertise and matching of personnel as needed, enabling a unified All-Japan approach.

Furthermore, information sharing between the public and private sectors will be pursued in specific fields such as the telecommunication field, fusion, agriculture, forestry, fisheries, and food, as well as airline decarbonization.

(c) Reinforcing coordination among ministries and agencies, and among national and local governments.

Through bodies such as the “Task Force for Promoting the Utilization of Standards,” composed of ministries and agencies advancing international standards strategies, information sharing will be facilitated regarding international standards activities within each ministry and agency, as well as measures to promote them. This

will foster collaboration toward the implementation of effective, government-wide policies concerning international standards.

(4) Enhancing international collaboration

(a) Working to develop human resources for international standardization and foster networking.

To foster international partnerships through human resource development, in addition to cultivating international standardization professionals in each field, a framework for collaboration will be established to develop cross-disciplinary standardization expertise.

In addition, beyond international standardization organizations like ISO, active participation in UN agencies and international organizations (including MDBs [multilateral development banks]) and international conferences that influence international standardization, such as the Forum Standard, as well as securing key positions in such organizations, will be pursued. Collaboration and cooperation with Japanese nationals stationed overseas will also be promoted.

(b) Facilitating the use of international mutual recognition arrangements, regulatory harmonization, and the adoption of standards.

Concerning certifications and regulatory procedures required by partner countries when exporting Japanese products and services, from the perspectives of enhancing convenience and safety for Japanese companies, fostering certification authorities, promoting international standards established through Japan's own initiatives, and incorporating domestic standards as national standards in other countries, we will promote the use of international mutual recognition, regulatory harmonization, and the adoption of standards. Particular emphasis is placed on the telecommunications field, fusion, pharmaceuticals, and medical devices, agriculture, forestry, fisheries, and food sectors, smart farming, airline decarbonization, ports, automobiles, logistics, urban models, water disaster prevention, urban digital twins, trade, and eco-labels;

(c) Strengthening cooperation with ASEAN countries and other countries.

Building on the strengths Japan has accumulated over time, a cross-sectional cooperation framework will be established to strengthen collaboration with ASEAN countries and allied countries.

Efforts will also include cooperation with ISO Regional Coordinators, IEC Regional Offices, and standard-setting institutions, as well as participation in relevant ASEAN meetings, the APEC Standards and Conformity Subcommittee (SCSC), the Northeast Asia Standards Cooperation (NEAS) Forum, and the Pacific Area Standards Conference (PASC).

Moreover, in specific sectors such as the telecommunications field (Asia-Pacific Telecommunity [APT]), pharmaceuticals and medical devices (Asian Training Center for Pharmaceuticals and Medical Devices), smart farming, GHG reduction and absorption technologies, smart cities, ports, automobiles, microplastics, and the circular economy, regional frameworks and technical cooperation and collaboration with individual countries will be reinforced.

(d) Holding an international conference on international standards in Japan.

By hosting international conferences on international standards in Japan or placing international standards on the agenda of conferences held in Japan, we hope to enhance Japan's presence in international standards activities while fostering awareness within industry and the academic community and building international networks.

In addition to steadily advancing pioneering initiatives in the telecommunications field (ITU-R), international conferences on standards will also be hosted in other specific fields.

Furthermore, while promoting the hosting of international conferences in specific fields within ISO and IEC, specific preparations will be advanced for inviting the 2029 IEC General Meeting to Japan.

Chapter 4: Selection of Key Domains and Strategic Domains and Direction of Initiatives

(1) General overview

From Japan's perspective, we must concentrate our limited international standardization resources by selecting domains that are important to the international community and where international standards are a key solution. This is to achieve the resolution of international social issues and the creation of new markets through collaborative international standardization activities, ultimately leading to the resolution of domestic social issues and the strengthening of Japan's competitiveness. Examples of such domains include the following;

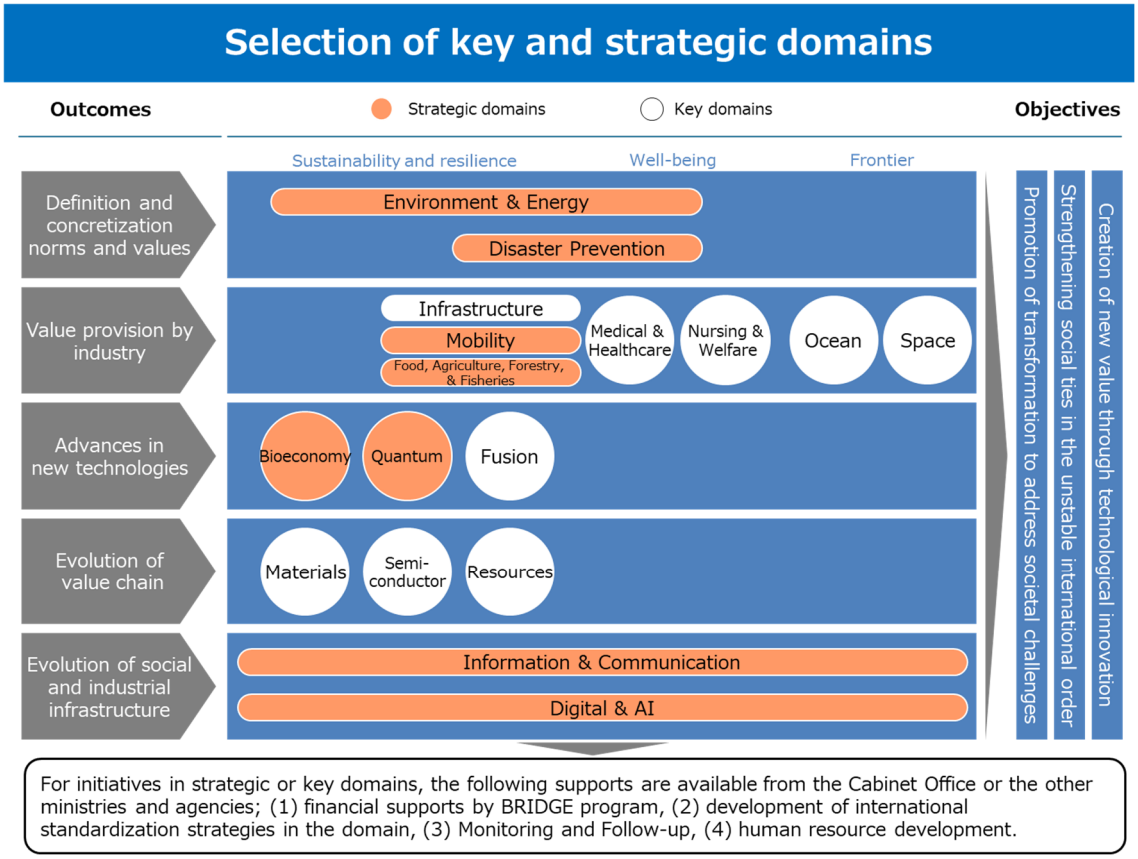
- A field requiring transformation from the current situation
- A field where strengthened cooperation through international standards is needed due to instability in the global order
- A field where technological innovation creates new value that transcends existing industry boundaries

Based on opinions from government ministries, experts, private companies, and other stakeholders, we selected 17 key areas as shown in Figure 3, (2) and (3). Furthermore, from these key domains, based on their maturity and the urgency of response, we selected eight “Strategic Domains” including “Environment and Energy,” “Digital and AI,” and “Information and Communication.”

Going forward, in these key domains and strategic domains, both the public and private sectors will strengthen international standards activities (immediately for strategic domains and over the medium to long term for key domains), aiming to develop and promote domestic and international standards. To this end, more detailed international standardization strategies will be formulated and implemented for each domains, and appropriate monitoring and follow-up will be conducted. Efforts will also be made to cultivate human resources responsible for international standardization activities and to actively participate in international meetings. For example, in specific fields within key and strategic domains characterized by high uncertainty (e.g., GX, DX), the government will take the lead in strategic standardization activities. In addition, for each strategic and key domain, appropriate KPIs (Key Performance Indicators) will be set based on the specific circumstances of each field, such as securing key positions and the number of international standards proposals to achieve the desired goals. These selected key and strategic domains for international standards is provisional and highly flexible; the currently selected domains are not fixed. And the domains will undergo appropriate additions, deletions, revisions, and version upgrades through ongoing monitoring of international standards activities by both public and private sectors, annual follow-ups, and interim and final reviews of this strategy.

Going forward, we will verify whether international standardization activities in these key and strategic domains contribute to solving challenges of the international community and creating markets, and whether they ultimately contribute to Japan's economy, including GDP, and support Japan's growth strategy. In addition to analyses by individual key and strategic domains, consideration and analysis of cross-area international standards will also be advanced, anticipating the interconnection and linkage between domains such as “Digital and AI,” “Environment and Energy,” and “Information and Communications,” as exemplified by the Watt-Bit collaboration[10].

[10] It is the effective integration of power and communications through the establishment of efficient power and communications infrastructure.



[Figure 3: Selection of key and strategic domains]

(2) Strategic domains

(a) Environment & Energy (climate change, energy, GX)

- The 2050 net-zero target is a goal that remains unwavering in the medium to long term, despite current setbacks such as stalled efforts due to geopolitical factors and increased energy consumption driven by generative AI. In the future, expanding innovation and investment toward a stable energy supply and economic growth through decarbonization by the international community and Japan will be essential.
- At this time, Japan will contribute to each country's transition by presenting realistic solutions for decarbonization, tailored to each nation's circumstances, while leveraging Japan's technology and expertise.
- Therefore, Japan will advance international standardization regarding concept and management for transition, evaluation methods at the manufacturing process and product level, GHG emissions calculation and reporting, and rules for credit utilization.

(※Potential target for initiatives: Renewable energy, fuel resources [e.g., hydrogen, ammonia], renewable energy-related products [e.g., solar panels, storage batteries (lithium-ion batteries, redox flow batteries, sodium-sulfur batteries, etc.)],nuclear

power, energy management systems [e.g., smart grids], energy-saving technologies [e.g., inverters], regional/building energy utilization [e.g., ZEB/ZEH, CES], CO_2 reduction in manufacturing processes [e.g., CO_2 reduction in steelmaking processes], negative emissions [e.g.,CO_2 storage/sequestration in the ocean, CCS/CCUS], CO_2 utilization(e.g., methanol, methanation, synthetic fuels, artificial photosynthesis, concrete], sustainable finance, carbon pricing, carbon credits, and methodologies/protocols for estimating or calculating GHG [greenhouse gas] emissions.

[Cabinet Office (Secretariat of Science, Technology and Innovation Policy), MEXT, MAFF, METI, MLIT, MOE]

(b) Environment & Energy (symbiosis with nature)

- Given that much economic activity depends on natural capital, the situation of accelerating biodiversity loss poses a clear risk to the sustainability of our economies and societies.
  Consequently, international discussions on transitioning to a Nature Positive economy are intensifying. This is an economy that achieves the global goal of halting and reversing biodiversity loss by 2030. There are ongoing discussions regarding disclosure frameworks and target setting, such as those proposed by the Taskforce on Nature-related Financial Disclosures (hereinafter "TNFD"). However, datasets on natural capital reflecting the unique characteristics of regional ecosystems remain underdeveloped. Challenges also exist in monitoring methodologies, indicator setting, and utilization; thus, establishing a framework to pursue synergies in the transition towards Nature Positive, Carbon Neutral, and a Circular Economy is essential.
- In this context, Japan will contribute to an effective transition to nature positive, collaborating with other countries while taking into account each nation's regional specificities and aligning with international trends such as the Convention on Biodiversity and TNFD.

- For this purpose, international standardization will be advanced for: concept and management for symbiosis with nature; unique indicators and datasets for information disclosure; evaluation methods at the product level to promote nature-positive products and services; and valuation and trading rules for natural capital and biodiversity.

(※Potential target for initiatives: Biodiversity conservation and restoration [e.g., OECMs], protection and restoration of natural capital [e.g., ceramic membrane

treatment, UV-LED treatment, nitrogen-phosphorus recycling systems for water resources], biotechnology, environmentally conscious primary industries, green infrastructure, NbS, Eco-DRR, monitoring, measurement, and visualization protocols for ecosystems and biodiversity [observation, assessment (including indicator development), and prediction of ecosystems and biodiversity], sustainable finance, biodiversity value transactions, and others)

【MAFF, METI, MLIT, MOE】

(c) Environment & Energy (circular economy)

- Resource procurement risks are increasing due to resource hoarding and other factors driven by rising demand. Additionally, environmental challenges such as climate change, carbon neutrality, waste management, and plastic pollution require continued response. The concept of a "circular economy," which addresses these challenges through resource efficiency and resource circulation approaches while creating opportunities for success, is gaining global traction. However, efforts to quantify impacts, collect data, and develop business models for various resources remain in progress.
- In doing so, along with developing circular economy businesses related to resource recycling derived from Japan's advanced technological capabilities and services utilizing goods history data, we will contribute to the transition toward a global circular economy. This will be achieved through developing circulation indicators aimed at appropriately evaluating circular performance and disclosing information on corporate circular economy initiatives, while also ensuring autonomous resources.
- Therefore, international standardization will be advanced for resource recycling technologies such as 3R, management of corporate partnerships, data management for product environmental information, eco-design tailored to each product's actual characteristics, regulations and systems related to the circular economy, circulation indicators, and information disclosure schemes, and others

(※Potential target for initiatives: resource recycling technologies and equipment [e.g., 3R (reduce, reuse, recycle technologies and equipment, incineration technologies and) equipment], circular economy businesses [e.g., value networks, eco-design, remake, upcycling, remanufacturing businesses], Utilization of renewable and underutilized resources [e.g., utilization of biomass resources, biomanufacturing, SAF production from waste cooking oil], resource recycling data management, data platforms, circularity measurement methods, indexing, protocols, circularity information disclosure scheme, and others)

【Cabinet Office (Secretariat of Science, Technology and Innovation Policy), CAA, MAFF, METI, MLIT, MOE】

(d) Food, Agriculture, Forestry & Fisheries

- Against the backdrop of growing global food demand, increasing instability in food production, and accelerating movements prioritizing SDGs and the environment, both productivity enhancement and sustainability in food, agriculture, forestry, and fisheries are essential. Additionally, the international food market is expanding, increasing the potential customer for Japanese agricultural, forestry and fishery products and food. Simultaneously, diverse values regarding food are emerging, such as growing health consciousness in various countries. It is necessary to respond appropriately to these trends and enhance the productivity and added value of the global food, agriculture, forestry, and fisheries industries.
- In this regard, Japan will contribute to the sustainable food supply, food safety, and nutritional improvement globally and domestically. This will be achieved through the overseas deployment of technologies related to smart and environmentally friendly agriculture, as well as the international promotion of high-quality, high added value products and diverse, nutritionally balanced diets.
- To achieve this, international standardization will be advanced for technical requirements for smart and environmentally friendly agriculture, definitions and testing methods for high-quality, high added value agricultural, forestry and fishery products and food, and concepts for evaluating nutrition across entire meals.

(※Potential target for initiatives: high-quality, high added value agricultural, forestry and fishery products and foods [e.g., products targeting overseas markets, high-functionality bio-materials], sustainable agriculture, forestry, fisheries and food industries [e.g., smart farming, food tech/food chain, sustainable aquaculture, nutritional evaluation of foods], GHG reduction and absorption [e.g., forest absorption, paddy field management, soil carbon sequestration])

【CAA, MOFA, MHLW, MAFF】

(e) Disaster Prevention

- Amid increasing threats from natural disasters caused by global climate change and other factors, discussions and plans to reduce disaster risk are being advanced through initiatives including the “Sendai Framework for Disaster Risk Reduction

2015–2030" and the "G20 Disaster Risk Reduction (DRR) Working Group." While the international community faces the challenge of continuously developing infrastructure to prepare for natural disasters, sharing disaster information, and ensuring thorough preparedness, Japan's international contribution to disaster prevention measures using its own technologies is still in its early stages.

- Japan aims to reduce disaster risks and losses to lives, livelihoods, health, and assets worldwide by sharing our disaster prevention expertise and technologies internationally. We will also continue to advocate for the importance of disaster prevention in international arena, in coordination with these efforts.
- To this end, international standardization will be pursued for disaster risk finance to induce investment in pre-disaster preparedness, for defining requirements for high-quality infrastructure, and for data standards to share disaster information.

(※Potential target for initiatives: high-quality infrastructure development and maintenance technologies [e.g., seismic resistance and vibration isolation technologies for buildings, disaster-resilient infrastructure construction and methods, diagnostic technologies for aging infrastructure and life extension technologies], water disaster prevention and related services [e.g., resilience, sensors (observation), risk assessment, simulation, warning systems, data integration, disaster countermeasure supplies, insurance services], and others)

【Cabinet Office (Director general for policy planning [Disaster Managemen]), METI, MLIT】

(f) Digital & AI (digital)

- While digitalization is essential for enhancing societal productivity and economic growth, ensuring security against increasing cyberattacks is indispensable. As each nation advances digital technology innovation andrulemaking, fundamental frameworks concerning reliability, such as unified formats for data integration, identity certification, and data authenticity, remain unestablished.
- To this end, Japan will aim for the free cross-border data flow under the principle of Data Free Flow with Trust (hereinafter referred to as "DFFT"). We will also promote data utilization, improve the data utilization environment, build the foundation for secure data flow, accumulate use cases in specific fields where Japan possesses expertise, enhance the productivity of society at large, as well as promote support and cooperation for developing countries and others facing data disparities.

- To achieve this, initiatives will be advanced that lead to international standardization, including the development of interoperable digital identities. Furthermore, international standardization will be pursued for data space specifications and the interconnection with overseas data spaces, ensuring secure data flow within the data integration platform.

  (※Potential target for initiatives: digital public infrastructure, data spaces [e.g., Ouranos Ecosystem], robotics and smart manufacturing, computer architecture [including the data integration platform and IoT], cybersecurity and trust [including DFFT], and others)

  【Digital Agency, MIC, METI】

(g) Digital & AI (AI)

- AI is a technology that could fundamentally transform competitive environments across all fields. While rapid technological innovation progresses internationally, challenges concerning safety standards, copyright protection, and privacy protection are becoming increasingly apparent. Making international rules that facilitate coordinated AI utilization among nations and adopting an international contribution perspective that enables developing countries to benefit from AI technology are crucial. Under Japan's presidency, the 2023 G7 Hiroshima Summit launched the Hiroshima AI Process to explore international rules for generative AI. To realize safe, secure, and trustworthy AI, we led international discussions, including the development of "International Guidelines for All AI Stakeholders" and an "International Code of Conduct for Organizations Developing Advanced AI Systems." In February 2025, the reporting framework for the International Code of Conduct began operation. Currently, the Hiroshima AI Process Friends Group is also being utilized to enhance AI governance in countries and regions, including developing nations, working toward the global realization of safe, secure, and trustworthy AI.
- In doing so, we will expand markets to advance social acceptance and technological development, promote AI utilization in new fields such as robotics, and contribute to solving international social challenges.
- Accordingly, international standardization will be promoted concerning AI safety requirements, data quality, structure, and format necessary for data analysis and machine learning, area-specific AI, and safety and operational standards contributing to the widespread adoption of robots that collaborate with humans.

(※Potential target for initiatives: generative AI, AI safety)

【Cabinet Office (Secretariat of Science, Technology and Innovation Policy), Digital Agency, MIC, METI】

(h) Mobility

- In the mobility sector, innovation is advancing through proactive DX-related investments alongside efforts toward carbon neutrality. Meanwhile, in Japan, against the backdrop of mobility refugees due to aging and labor shortages in logistics, demonstrations for social implementation is progressing. In addition to the technological implementation of next-generation mobility (airline, vessels and vehicles), establishing regulations for the data integration platform and emerging technologies is essential.
- Japan must pursue enhanced safety, compatibility, and environmental performance in next-generation mobility to accelerate technology adoption. At the same time, we will build a foundation supporting global economic growth through technological development, creating use cases, data preparation, and reducing environmental impact.
- To this end, international standardization will be advanced for logistics data formats, enabling inter-vendor and inter-system integration, safety and environmental performance requirements for next-generation aircraft and ship, performance evaluation for railways and ports, as well as safety testing standards for onboard batteries in next-generation vehicles.

(※Potential target for initiatives: next-generation vehicles [e.g., SDVs, autonomous driving, EVs, all-solid-state batteries], next-generation aircrafts, next-generation ships, drones, railways and ports, MaaS, logistics systems, and others)

【Cabinet Secretariat (Infrastructure Export and Economic Cooperation), MLIT, METI】

(i) Information & Communication

- Regarding Beyond 5G, the next-generation information and communications infrastructure, various international initiatives surrounding R&D and international standardization have expanded in recent years. Concurrently, new environmental changes have emerged, including international trends concerning the autonomy of information and communication networks and technological

supremacy, structural changes within the information and communication industry, as well as the explosive proliferation of AI.

- AI, as it is increasingly utilized across various societal domains, will generate and facilitate the distribution of the data necessary for its learning and advancement. As a result, this could accelerate the growth of communication traffic and increase power consumption. It is crucial to realize Beyond 5G with low latency, high reliability, and low power consumption, which will support the AI society of the 2030s, at an early stage within information and communication networks.
- Therefore, international standardization will be advanced in areas where Japan possesses strengths, including all-optical networks, non-terrestrial networks (NTN), and radio access networks (RAN).

(※Potential target for initiatives: Beyond 5G [e.g., all-optical networks, NTN, RAN] and others)

【MIC】

(j) Quantum

- Quantum technology is expected to develop to solve societal challenges such as the SDGs and decarbonization. Internationally, efforts by private companies, including startups, for R&D and industrialization of quantum computers, quantum sensing and materials, and quantum cryptography communications are accelerating. Meanwhile, quantum computers feature complex architectures, which makes international collaboration, including patent handling, a challenge.
- As for Japan, in the quantum computer market, efforts will focus on applications (manufacturing), hardware (component/material development), and high-added value software (algorithms). For quantum cryptography, the development of quantum key distribution (QKD) technology will advance. In quantum sensing, the enhancement and strengthening of the technological infrastructure supporting utilization will be pursued.
- To this end, international standardization will be promoted: for quantum computers, in areas such as algorithm performance evaluation and component material standardization; for quantum cryptography, in areas such as network protocols and implementation security certification for QKD devices; and for quantum sensing, in areas such as component material performance evaluation.

(※Potential target for initiatives: quantum computing [e.g., applications, software, hardware], quantum security and quantum networks [e.g., quantum cryptography],

quantum sensing and materials)

【Cabinet Office (Secretariat of Science, Technology and Innovation Policy), MIC, METI】

(k) Bioeconomy[11]

- Investment and rulemaking related to the bioeconomy are accelerating worldwide as a means to contribute to solving various social challenges, including GX, the circular economy, nature-positive initiatives, and food security. On the other hand, there are concerns that biomanufacturing currently faces limited market potential, posing risks of insufficient investment and technological development.
- Accordingly, Japan will contribute to building the global bioeconomy by enhancing microbial improvement and manufacturing technologies for biomanufacturing, while also raising awareness of bio-derived products.
- To this end, international standardization will be advanced regarding the conceptualization of added value in biomanufacturing, safety standards for biomanufacturing, the establishment of biomanufacturing technologies, and quality requirements and certification for bio-based products.

(※Potential target for initiatives: biomanufacturing and bio-derived products, including microbial and cell engineering platform technologies, large-scale microbial cultivation, fermentation and other production technologies, related measurement technologies, and evaluation methods for environmental impact reduction effects, among others)

【Cabinet Office (Secretariat of Science, Technology and Innovation Policy), MEXT, MAFF (Forestry Agency), METI, MOE】

(3) Key Domains

(l)Nursing care and welfare

- As aging populations advance in developed countries and increasingly in developing countries, Japan stands at the forefront of the “100-year life era,”

[11] This section primarily focuses on biomanufacturing and bio-derived products. Sustainable agricultural production systems are covered under food, agriculture, forestry, and fisheries, while biopharmaceuticals fall under medical and healthcare.

facing challenges ahead of the world. It is expected to contribute to the international community through its insights and technologies. The demand for nursing care services is also rising, making the balance between quantity and quality of care a critical issue. Furthermore, as the demand for care is projected to grow globally, resolving the shortage of care human resources is essential.

- Accordingly, Japan will contribute to the international community's response to aging societies and disability welfare by raising awareness of the importance of healthy life expectancy, sharing expertise in welfare equipment and care, as well as disseminating welfare equipment, among others.
- Therefore, Japan will advance international standardization in areas such as high-quality care services through quality and safety criteria, guidelines for using welfare equipment, and safety and quality assessments for care technologies including service robots.

*In this domain, it should be noted that internationally, efforts should begin with fostering awareness regarding the quality of care services.

(※Potential target areas for initiatives: nursing care services, assistive devices for persons with disabilities, nursing care technology, and others)

【Children and Families Agency, MHLW, METI】

(m) Infrastructure

- Regarding infrastructure, which serves as a vital foundation for national lives and economic activities, environment-conscious green infrastructure and data-driven infrastructure management have been advanced worldwide in recent years. To achieve sustainable and efficient infrastructure development, it is essential to address challenges such as shortages of resources, know-how, legal frameworks, and human resources for infrastructure maintenance and management.
- At this point, Japan aims to develop efficient global infrastructure by providing infrastructure services tailored to each country's circumstances, including long-term initiatives such as Operation and Maintenance (O&M).[12]
- Therefore, Japan will advance international standardization in area such as regarding Building/Construction Information Modeling and Management

[12] Operation and Maintenance

(BIM/CIM[13]) standards and guidelines, 3D city models,[14] and other related technologies. These are initiatives toward to establish data formats and usage guidelines suitable for utilizing Japanese technologies, constructing disaster-resilient smart cities through the integration of infrastructure systems with disaster prevention technologies, and undertaking efficiency improvement measures for construction production and management systems.

(※Potential target areas for initiatives: location and geospatial information, infrastructure [e.g., roads, ports, water and sewage systems], construction machinery, BIM/CIM, smart cities and urban development, regional revitalization [related to infrastructure development], and others)

【Cabinet Secretariat (Infrastructure Export and Economic Cooperation), Cabinet Office (Secretariat of Science, Technology and Innovation Policy), MOFA, MLIT】

(n) Fusion[15]

- Fusion energy is gaining global attention as a solution that addresses both climate change and energy stable supply simultaneously. While each country is pursuing development through the government's strategies and international collaborations like ITER, the complex architecture presents high technical challenges, making the development and manufacturing of efficient reactors, improving power generation efficiency, as well as establishing safety standards key challenges.
- Japan will contribute to the implementation of fusion energy by starting with component manufacturing and material supply, while also engaging in the development of diverse reactor types and ensuring safety.
- Accordingly, we will promote international standardization concerning conceptual frameworks and safety standards related to the safety and utility of fusion energy, design and construction specifications of fusion reactors,

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[13] Building/Construction Information Modeling, Management

[14] Regarding the field of 3D city models, which are being developed and utilized domestically, in collaboration with international standards organizations working on the standardization of geospatial information, efforts are being made to cooperate in the formulation of new standards.

[15] In this case, it refers to the area concerning the utilization of energy released by nuclear fusion (fusion energy), such as for electricity generation.

material standards of components, welding standards and quality testing standards, as well as tritium management, measurement equipment, and safety management systems.

(※Potential target areas for initiatives: fusion energy [plasma physics, radiation, blankets; fuel cycle; heat transport and power generation; superconductivity and magnetic field technology; materials and components])

【Cabinet Office (Secretariat of Science, Technology and Innovation Policy), MEXT】

(o) Space

- As humanity's area of activity expands into space, the potential applications, such as disaster prevention using space systems and next-generation communications, have broadened the scope of space activity leaders from government-led initiatives to public-private collaboration, resulting in the global surge of commercial space activities. Furthermore, this sector holds critical importance from a security perspective. To expand the space industry infrastructure and address challenges on Earth, technological innovation in space and the development of a supportive business environment are crucial.
- Japan will contribute to space development through international cooperation by expanding its space industry infrastructure, centered on satellite manufacturing technology, know-how, and the provision of space solution services.
- Therefore, international standardization will be advanced for norms, of safety standards for cooperative space development, and measures to prevent space debris generation.

(※Potential target areas for initiatives: space equipment [including small satellites], satellite data, new services [e.g., resources development, transportation, space debris recovery])

【Cabinet Office (National Space Policy Secretariat), MEXT, METI】

(p) Semiconductor

- In the modern age where digitalization has advanced, semiconductors have become essential core components for all industries, with the importance of semiconductors expected to continue growing. Furthermore, the dramatic expansion of information processing through generative AI and quantum

computers is projected to further increase semiconductor demand. Under these circumstances, supply chain risks from a geopolitical perspective, along with energy and resource conservation to reduce environmental impact, also pose significant challenges.

- Japan will strengthen the semiconductor production infrastructure while advancing both performance improvements and environmental impact reduction in areas where Japan possesses technological strengths, including power semiconductors, components and materials, and manufacturing equipment, thereby contributing to the stable global supply of semiconductors.
- To this end, international standardization will be promoted for semiconductor performance and manufacturing requirements that prioritize energy efficiency and environmental considerations, as well as for semiconductor testing and evaluation methods and authenticity assurance.

(※Potential target areas for initiatives: logic semiconductor, memory semiconductor, power semiconductor, etc.; component material, manufacturing equipment, and others)

【METI】

(q) Materials

- As awareness of the SDGs grows, material innovation is essential for realizing a sustainable society. At the same time, meeting the diversifying global material needs requires efficient manufacturing in a short timeframe, making it necessary to improve data-driven development efficiency and environmentally conscious business flow for sustainable and efficient manufacturing.
- Japan will enable the enhancement of material performance and the fulfillment of diverse needs through the optimization of R&D efficiency and environmentally conscious manufacturing processes, as well as support globally environmentally conscious manufacturing, thereby contributing to solving global social issues.
- To this end, international standardization will be advanced for specifications related to sustainable manufacturing, measurement methods and quality evaluation for functional materials, and data standards anticipating the transition to data-driven R&D.

(※Potential target areas for initiatives: Innovative materials [e.g., carbon fiber, ultra-high-performance ceramics, cellulose nanofibers, permanent magnets,

next-generation elements, rare metal/rare earth-free materials], materials informatics and process informatics [including operando measurements], and others)

【MEXT, METI】

(r) Resources

- In recent years, global demand for green products has expanded alongside progress in carbon neutrality initiatives, and mineral resources are essential for their manufacture. Meanwhile, each country demands "responsible procurement," strengthening management and traceability of supplier. Furthermore, the supply chains for many mineral resources are concentrated in specific countries, making a secure supply a challenge. For the sustainable use of mineral resources going forward, the advancement of mining and recycling technologies, along with the development of environment-conscious technologies for resource development, is indispensable.
- Japan will promote the stable procurement of mineral resources while aiming for the sustainable utilization of mineral resources in each country through sustainability-conscious manufacturing.
- To achieve this, international standardization will be advanced for sustainable manufacturing standards and for quality evaluation of components using resource-saving and alternative materials.

(※Potential target areas for initiatives: rare earths, rare metals, base metals, sustainable raw materials and supply chains)

【METI】

(s) Ocean

- As demand for green energy and related technologies grows, the development of ocean resources is gaining attention worldwide. To ensure a stable supply of resources going forward, cooperation with countries along sea lanes in the field of maritime security, for example, will be necessary.
- We will promote active development and utilization, taking into consideration the possibility of sustainable development and use of ocean resources.
- Furthermore, by introducing more advanced navigation equipment, maritime safety and economic security will be enhanced. To this end, international standardization will be promoted regarding VDES performance and technical standards, particularly concerning the assurance of navigational safety.

(※Potential target areas for initiatives: marine resources [e.g., production technologies, survey technologies, autonomous underwater vehicles [e.g., AUVs], navigation safety [e.g., VDES])

[Cabinet Office (Secretariat of the Integrated Ocean Policy Headquarters, Secretariat of Science, Technology and Innovation Policy), METI, MLIT]

(t) Medical and healthcare

- With the aging of populations and expanding demand for medical services both in Japan and around the world, extending healthy life expectancy through medical and healthcare services is indispensable from the perspectives of sustainable social security and economic viability. In the medical field, there are challenges in the international deployment and cooperation of medical systems because pharmaceuticals, test codes, data standards, and other elements are not compatible with international standardization.
- Japan will establish a foundation that enables the effective utilization of medical data while protecting personal information through medical DX, as well as the advancement of Japan's drug discovery tools and processes, and sharing of medical technologies and devices, aiming to improve healthcare services and extend healthy life expectancy in various countries.
- To achieve this, international standardization will be promoted for the interoperability of medical data, secondary use of data, and performance standards for medical technologies and devices such as wearable devices. Concurrently, guidance and regulations concerning pharmaceuticals and medical technologies, including biodrug development, will be harmonized.

(※Potential target areas for initiatives: medical technology [including regenerative medicine, neurotech, and brain tech], pharmaceuticals [including biopharmaceuticals], medical devices, digital health [e.g., personalized medicine, precision medicine, data integration], and others)

【Cabinet Office (Secretariat of Science, Technology and Innovation Policy, National Healthcare Policy Secretariat), MEXT, MHLW, METI】

Chapter 5: Implementing Monitoring and Follow-up and Reviewing the Strategy

(1) Monitoring international standardization activities and appropriate sharing and response between the government and private sectors

In international standardization activities, matters that significantly impact the international community or Japan will be monitored regularly. The results will be shared appropriately between the public and private sectors to ensure timely and appropriate responses.

Specifically, the following measures will be implemented:

- The government, private sector, and the Secretariat of Intellectual Property Strategy Headquarters under the Cabinet Office (hereinafter referred to as the "Secretariat") will promote the identification of domestic needs and seeds expected to become international standards, in consideration of science, technology, innovation, and policy trends.
- The government, private sector, and the Secretariat will promote efforts to understand the actual state of international standards activities in key domains and strategic domains defined by this strategy, both domestically and internationally, as well as their global implementation.
- In light of domestic and international economic and social trends, the government, private sector, and the Secretariat entities will seek new international standards activities that Japan should pursue going forward, extending beyond existing key domains and strategic domains.
- From the perspective of collaboration and cooperation in international standards activities, the government and private sectors, and the Secretariat will identify the actual status of initiatives in leading standards regions and countries such as Europe, China, and the United States, and understand the challenges and needs of regions and countries that could become future partners, including the Global South.
- Additionally, request the sharing of information collected by the private sector regarding the implementation of international standardization and certification, while exercising sufficient caution in its handling.
- The Secretariat will continuously advance efforts to identify needs and seeds for international standardization and explore methodologies and information gathering frameworks for identifying new international standards activities that Japan should pursue.

The results of this monitoring will be appropriately shared with relevant public and private sector stakeholders, taking full care in their handling, through public-private collaboration forums and digital information sharing platforms; they will be utilized for

agile public-private initiatives such as proactive responses to international conferences and human resources exchanges.

(2) Measures and follow-up on key domains and strategic domains

Regarding the measures, key domains and strategic domains compiled by each ministry and agency in this compilation, progress will be monitored through annual follow-up (PDCA cycle). For these measures, KPIs will be pursued for early achievement, and conversely, if efforts are insufficient, deeper implementation of KPIs or initiatives will be required.

Specifically, the following measures will be implemented:

- Regarding the measures outlined in this strategy, a report on the progress and achievements will be requested from the ministries and agencies responsible based on KPIs and other metrics, and experts will conduct an evaluation. In such cases, if the responsible ministry or agency is already conducting a separate follow-up, the results of that follow-up will be utilized to the fullest extent possible. In addition, the responsible ministries and agencies will continuously consider setting and quantifying KPIs to the greatest extent possible for the measures under their responsibility.
- For key domains and strategic domains, the Secretariat will report on the progress and achievements, with the cooperation of concerned government ministries and industries, regarding players in international standards activities that could become the key success factor (KSF) in those domains, as well as their main issues and initiatives, specific actions, expected deliverables, and timelines.
- Additionally, in cases where activity reports on international standards activities in the private sector are available, requests will be made to share these reports, taking full care of their handling.
- The Secretariat will continue to examine methodologies for setting the KPI for companies and industries from perspectives including market creation, competitiveness enhancement, and social implementation.

The progress and achievements on these measures will be reported at public-private partnership forums and expert meetings, where quantitative and qualitative evaluations will be conducted. Based on these evaluations, stakeholders will be requested to implement corresponding initiatives.

Furthermore, regarding Japan's international standards activities aimed at solving global challenges, the results of the above reporting and evaluation will be incorporated into the annual Intellectual Property Strategic Program and other measures to ensure external communication.

(3) Monitoring and follow-up structure

To ensure appropriate monitoring and follow-up through public-private collaboration, as part of the headquarters outlined in Chapter 3. (3)(a), a meeting group of public and private entities will be established to coordinate responses. Specifically, based on this strategy, a cross-disciplinary forum will be established to advance international standards activities through public-private collaboration, with this forum also incorporating functions for monitoring and follow-up implementation. We will consider participation from a wide range of stakeholders, including industry and academic community, national research institutes, specialized services, and government ministries and agencies.

Additionally, consideration will be given to establishing and promoting a digital platform as an information-sharing infrastructure that facilitates appropriate monitoring and follow-up, the sharing of know-how, the strengthening of Japan's international standards-related ecosystem, and the promotion of industry, academia, and government initiatives.

(4) Reviewing the strategy

Regarding the policies and key domains and strategic domains of each ministry and agency, based on the results of annual follow-up reports and evaluations, an interim review will be conducted in FY 2027 and a final review in FY 2029 so that the policies and key domains and strategic domains within this strategy will be reviewed agilely and the strategy itself will be revised.

Appendix

Measures List of "The New International Standards Strategy"

To realize "The New International Standards Strategy", the individual measures implementing by each ministry and agency classified with the premise to set KPI wherever possible. Every measure will be followed-up by the subcommittee of the international standards strategy and other relevant bodies. The results of this follow-up report to Intellectual Property Strategic Subcommittee, and the measures as needed will be revised appropriately.

*The KPI is to be set for the period from FY 2025 to FY 2029.

(1) Strengthening initiatives by industry, academia, government, and finance

Sub-category of measures	Ministries	Measures and policies	KPIs
① Engage with the business, academic, and financial community.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Preparation, distribution, and dissemination of this strategy summary (including the English version).	By July 2025: Prepare an overview and post it on the website/Distribute and disseminate it within FY2025/Hold public-private seminars in collaboration with concerned government ministries and agencies/Continue disseminating information thereafter.
		Encourage relevant ministries and agencies to incorporate the content of this strategy into other national strategies and systems.	The number of strategies and plans of the government that incorporate descriptions of international standardization activities while taking this strategy into account.
		Through public-private partnerships and digital platforms, share diverse successful case studies	During FY2025, establish a public-private partnership forum to collect information and

		and cost-effectiveness data while leveraging cases of Initiatives in specific fields as well as fostering a shift in perspective among companies and research institutions, and contributing to human resource development.	case studies on the sales growth effects and cost-effectiveness of standardization activities, as well as career paths for standardization human resources and disseminate this information through the public-private partnership forum and digital platforms for information dissemination.
	MAFF	Formulate an international standards strategy for agriculture, forestry and fisheries products, and food sectors.	Expand the export value of agriculture, forestry and fisheries products, and food .(5 trillion yen by 2030)
		Establish a domestic network for international standardization activities in agriculture, forestry and fisheries products, and food sectors.	Expand the export value of agricultural, forestry and fisheries products, and food. (5 trillion yen by 2030)
	METI	Promote the appointment of Chief Standardization Officers (CSO) in private companies, further encourage disclosure in integrated reports, accelerate the proliferation of understanding among companies and investors, and work to improve market formation capability indicators.	By the end of FY2025, utilize findings obtained through surveys in policy deliberations.

		The government will lead strategic standardization activities in the pilot fields of quantum technologies, perovskite solar cells, hydrogen and ammonia, bio-based manufacturing, and the data collaboration infrastructure.	Progress in the consideration of international standardization strategies in each field.
	MLIT	Trends in international standards in ISO/TC211 (geographic information) and investigation for domestic application. (continued)	JPGIS public site view count.
② Shift the perspective of companies, research institutions, and the government.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Through public-private partnership forums and digital platforms, share diverse success stories and cost-effectiveness data while leveraging cases of Initiatives in specific fields as well as contributing to fostering a shift in perspective among companies and research institutions, and to human resource development. (reprinted)	Establish a public-private partnership forum during FY2025 to compile information and case studies on sales growth effects through standardization, cost-effectiveness, and career paths for standardization human resources. Disseminate findings through the partnership forum and digital platforms.
		The ministries and agencies will encourage the National Research Institute to appropriately evaluate the international standardization activities of its personnel.	The number of National Research Institute for introducing evaluations of standardization activities for personnel/Compilation of exemplary cases for evaluating standardization human resources

			domestically and internationally.
		Through monitoring needs, seeds, and other factors, the government will identify areas where it should take the lead proactively.	Conduct annual monitoring and share the results with the concerned government ministries.
	MIC	Provides awards to individuals and organizations that have contributed to international standardization activities in the information and communication field.	—
	MHLW	Support research projects at universities, etc. to develop and establish evaluation methods for the efficacy and safety of innovative medical devices developed in Japan. Additionally, provide funding for survey expenses related to engaging with participating countries for a domestic Bodies such as ISO/IEC, which undertake standardization activities, including projects supported by this initiative.	Support at least five new projects at universities, etc. by FY 2029. Support at least ten domestic review organizations and other entities by FY 2029.
	MAFF	Formulate the International Standardization Strategy for the agriculture,	Expand the export value of agriculture, forestry and fishery products, and food. (5 trillion yen by

		forestry and fisheries products, and food sectors. (reprinted)	2030)
		Establish a domestic network for international standardization activities in the agriculture, forestry and fisheries products, and food sectors. (reprinted)	Expand the export value of agriculture, forestry and fishery products, and food. (5 trillion yen by 2030)
	METI	Establish the Chief Standardization Officer (CSO) position within private companies, further encourage disclosure in integrated reports, accelerate the proliferation of understanding among companies and investors, and improve market formation capability indicators. (reprinted)	Utilize findings obtained through surveys by the end of FY 2025 in policy deliberations.
		Advance the Open & Close strategy through initiatives such as follow-up on Standardization strategies for the Green Innovation Funding R&D projects and the accreditation system for specific new demand development business activity plans.	The status of formulating standardization strategies and other measures among project participants, the status of establishing organizational frameworks, accreditation under the Industrial Competition Act, and the implementation of demonstration projects.
		Work on the Industrial Standardization Project Awards, which recognize	—

		human resources and organizations that have made outstanding contributions through standardization activities and other efforts.	
		To strategically leverage the standardization strategy in the service sector, promote new project development and environmental preparation.	Hold a discussion session on service standardization.
③ Utilize standards in public procurement and subsidies.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	After assessing the current status of standards utilization in public procurement and subsidies both domestically and internationally, promote the use of standards in public procurement.	Survey utilization status in public procurement and subsidies during FY2025/grasp procurement status across ministries.
	MHLW	Establish an environment that efficiently and effectively aligns with international standards to facilitate the seamless utilization of medical information from primary to secondary use and patient benefit. This will be achieved through the construction of a national medical information platform (including the development of an electronic medical records information sharing	—

		service and a standard electronic medical record system) and the promotion of secondary use of medical and related information.	
④ Incorporate standardization from the R&D stage.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Based on previous cases such as Green Innovation funding, promote standardization support during the R&D phase across ministries and agencies.	During FY2025, compile best practices of competitive funding programs that incorporate international standardization activities as requirements/Number of competitive funding programs across ministries and agencies that incorporate international standardization activities as requirements.
	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarter, Council for Science, Technology and Innovation, Director general for policy planning [State Minister in Charge of Economic Security]), MIC, METI, concerned ministries and agencies..	Require private sector entities to clearly present social implementation strategy, international competitiveness strategy, and international standards strategy, along with management-level commitment to achieving them, and introduce frameworks for business operations and follow-up. Efforts will continue to be promoted, including pilot operations, and the scope of implementation expanded across concerned government	—

		ministries and agencies, using the following R&D projects as previous cases. Furthermore, the know-how gained during these initiatives will be leveraged, utilizing systems and practices related to technology evaluation within concerned government ministries, to facilitate lateral development beyond the scope of the following R&D projects. ➢ Green Innovation Fund Project ➢ Innovative Information and Communications Technology (Beyond 5G (6G)) funding project. ➢ Post-5G Information and Communication System Infrastructure Enhancement Research and Development Project. ➢ SIP (Strategic Innovation Promotion Program) Phase 3 Project. ➢ Economic Security	

		Important Technology Development Program Project. ➢ Bio Manufacturing Revolution Promotion Project. ➢ National Research and Development Agency New Energy and Industrial Technology Development Organization (NEDO) for R&D projects.	
	MIC	The Innovative Information and Communications Technology (Beyond 5G (6G)) Funding Project provides support for R&D and international standardization activities by private-sector entities strategically pursuing social implementation and overseas expansion.	Number of projects recognized as making steady progress following stage-gate evaluation.
	MEXT	Preliminary efforts toward international standardization of measurement techniques in the materials field (pre-standardization) conducted by the National Institute for Materials Science (NIMS) and	—

		relevant organization.	
		As an initiative to generate insights contributing to the standardization of data for international standardization strategy, promote the systematic collection, accumulation, and utilization of material data integrally.	—
	MEXT, METI	In the field of high-temperature gas-cooled reactors, enhance international standardization activities through International Collaboration with the Japan Atomic Energy Agency (JAEA).	—
	MHLW	In the medical and healthcare field, take the initiative alongside the Department of Medical Informatics at Kyushu University in establishing international standardization for linking medical information exchange and data representation held by healthcare institutions with medical data held by individuals, ultimately aiming to establish a business model.	①Draft completion with major global automaker (FY2025), pilot implementation (FY2028); ②Draft completion of technical specifications in ISO/TC215 (FY2027); ③Set and internationalize PHR items for two disease areas in CDISC (FY2027); ④Twenty training participants, 2 OJT participants (FY2028).

	METI	Advance the Open & Close strategy through initiatives such as follow-up on Standardization strategies for the Green Innovation Funding R&D projects and the accreditation system for specific new demand development business activity plans. (reprinted)	The status of formulating standardization strategies and other measures among project participants, the status of establishing organizational frameworks, accreditation under the Industrial Competition Act, and the implementation of demonstration projects.
	MLIT	Support the formulation of strategies for establishing international standards for transportation technologies by the startups and other entities, thereby strengthening international standardization activities.	—
		The National Institute of Maritime, Port and Aviation Technology conducts research with international standards and standardization in mind from the planning stage of research projects. It also contributes to international standardization activities by participating in the preparation of proposals for international standards to organizations including the International Maritime	Number of meetings attended for international standards.

		Organization (IMO), the International Civil Aviation Organization (ICAO), the International Organization for Standardization (ISO), and the Permanent International Association of Navigation Congresses. (PIANC)	
	MOE	Develop the Arctic Black Carbon (BC) reference dataset spanning 30 years approximately, calibrated to the concentration scale of the BC measuring instrument COSMOS, and make it widely available internationally. Furthermore, improve COSMOS and establish a long-term stable observation network at four representative Arctic observation sites within the framework of international collaborative research.	For Arctic black carbon (BC) data obtained over the past 30 years using BC measuring instruments other than COSMOS, normalization and standardization to values based on COSMOS will be completed by the end of FY 2028.
⑤ Enhance the effectiveness of support from the government	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Analyze the effectiveness of government support measures where international standardization activities form part of their requirements or objectives.	—
		Examine systems to support international	—

		standardization activities in Japan with drawing on examples from other countries.	
	MHLW	In the medical and healthcare field, take the initiative in international standardization for linking medical information exchange and data representation held by healthcare institutions with medical data held by individuals, ultimately aiming to establish a business model. (reprinted)	Through strengthening support for travel expenses and other costs associated with attending international conferences ① Draft completion of technical specifications in ISO/TC215 (FY2027); (2) Set and internationalize PHR items for two disease areas in CDISC (FY2027); (3) Twenty training participants, 2 OJT participants (FY2028).

(2) Enhancing the standard ecosystem

Sub-category of measures	Ministries	Measures and policies	KPIs
① Strengthen the human resources development system.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Through public-private partnerships and digital platforms, utilize initiatives in specific fields to enlighten companies and research institutions on shifting perspectives and contribute to human resources development. (reprinted)	During FY2025, establish a public-private partnership forum to collect information and case studies on the sales growth effects and cost-effectiveness of standardization activities, as well as career paths for standardization human resources and disseminate this information through the public-private partnership forum and digital platforms for information

			dissemination.
		The ministries and agencies will encourage the National Research Institute to appropriately evaluate the International Standardization activities of its personnel. (reprinted)	Number of National Research Institutes for introducing evaluations of standardization activities for personnel / Compilation of exemplary cases for evaluating standardization human resources domestically and internationally.
	MIC	Strengthen the human resource base supporting the sustained promotion of international standardization activities in the information and communications field, undertake human resource development through educational programs utilizing the skill sets required of standardization personnel.	Development of “standardization personnel skill sets”, prototype creation of educational methods (training curricula, etc.), and design of business models.
		Strengthen the human resource base to sustainably promote international standardization activities in the information and communication field.	・Strengthen the private-sector human resource base at ITU: Number of investigators, number of times investigators participated in related meetings, number of documents investigators edited or authored ・Strengthen the private-sector human resource base at universities,

			startups, small and medium-sized enterprises, and among young professionals: Number of new investigators dispatched, number of new proposals for international standardization.
	MHLW	Support research projects at universities, etc., to develop and establish evaluation methods for the efficacy and safety of innovative medical devices developed in Japan. Additionally, provide funding for survey expenses related to engaging with participating countries for a domestic bodies such as ISO/IEC, which undertake standardization activities, including projects supported by this initiative. (reprinted)	Support at least five new projects at universities, etc., by FY 2029. Support at least ten a domestic bodies and other organizations by FY 2029.
	MAFF	Develop human resources capable of participating in international standardization activities within the agriculture, forestry and fisheries product, and food sectors.	Expand the export value of agriculture, forestry, and fishery products, and food. (5 trillion yen [by 2030])
		Establish a domestic network for international standardization activities in agriculture, forestry	Expand the export value of agriculture, forestry and fishery products, and food. (5 trillion yen [by

		and fisheries products, and food sectors. (reprinted)	2030])
	METI	Deployment of the Standardization Human Resources Directory (STANDirectory), the lateral deployment starting from university and academic society standardization model projects, and the organization of standardization training.	Utilize STANDirectory, host standardization-related symposiums and seminars at academic conferences, and conduct training programs to cultivate standardizations of human resources.
	MLIT	Through training programs for Building/Construction Information Modeling and Management (BIM/CIM) and associated international standards, promote the development of human resources capablility of managing, overseeing, and executing tasks utilizing BIM/CIM.	Conduct training to acquire fundamental knowledge of BIM/CIM, understanding the aim and effectiveness of utilizing digital data in the phasing for design, construction, and maintenance, and enhance expertise and technical skills to leverage software as a tool for business transformation (FY2026 target: 3,400 participants annually)
		In the field of architecture, promote R&D with taking into account the international standardization by the National Institute for Land and Infrastructure	Participation in draft preparation of ISO and the other activities by specialized human resources who support sustainably international standardization activities

		Management and the National Research and Development Agency of Building Research Institute collaborating with companies, universities, etc., strengthening the human resource base to supports the sustained promotion of international standards activities.	in the field of architecture. (participation in TC/SC/WG and National Standardization committees)
		By Industry-government-academia partnership (“Public-Private Committee on New Technologies toward Decarbonization of Aircraft”), promote international standardization of new environmental technologies for decarbonization of aircraft (electrification, hydrogenation, weight-saving, and efficiency improvement), and establishing a domestic body as the central domestic coordination and strengthen human resources.	Establishment of a domestic body in the aircraft and equipment industry by the end of FY2025, the number of participating companies in the above domestic body, and the number of participants in committees of the International Organization of standardization.
② Develop and strengthen specialized institutions and expand their utilization.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	To resolve the mismatch between companies and the service support organization of standards,	During FY 2025, conduct surveys of existing platforms and other activities to identify

		certification and testing, and to consider establishing a platform to visualize and match the services provided by these organizations.	needs, and initiate platform construction.
		Promote cross-disciplinary collaboration among a service support organizations of standards, certification, and testing with leveraging existing initiatives.	During FY 2025, survey the needs of specialized institutions, companies, and other relevant entities to identify appropriate forms of partnership.
		From the perspective on economic security, consider the potential for utilizing certification authorities and testing institutions for services entering the country.	—
	MAFF	Establishment of an internationally recognized certification framework (Conclusion of international mutual recognition agreements between JASaff, IAF, and APAC)	Expand the export value of agricultural, forestry and fishery products, and food. (5 trillion yen by 2030)
	METI	Work to further expand the potential utilization of certification authorities and promote the use of certification within companies.	Organize a forum to discuss approaches to utilizing certification.
		Regarding domestic certification authorities,	Organize a forum to discuss approaches to

		advance compliance with overseas regulations through collaboration with overseas certification bodies, while also strengthening capabilities through human resources development for GX-ETS Phase 2 readiness and fundamental efficiency improvements in certification operations.	utilizing certification.
		Continue and strengthen support for standardization utilization by Small and medium-sized Enterprises and startup company (Standardization Utilization Partnership Program, Standardization System for Creating New Markets)	Hold a seminar.
③ Promote regulations, standards, and certifications in an integrated manner.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Identify the advantages and disadvantages of integrated promotion of standards development, regulatory adoption, and certification. Present areas of the significant advantages and encourage the integrated promotion.	Number and percentage of national standards cited in Japan's laws
	MHLW	In the Technical Committee 249 (Traditional Medicine) for “Chinese herbal medicine and acupuncture” derived from ancient Chinese	—

		medicine leading by China in the International Organization for Standardization (ISO), compile achievements and data about the collection of scientific evidence and the generation of insights on international standards to date, while undertaking deliberations to contribute to future international standardization.	

(3) Clarification and governance of standards strategy

Sub-category of measures	Ministries	Measures and policies	KPIs
① Establish a public-private partnership platform to serve as a headquarters.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Establish a "public-private partnership platform" to provide support and serve as a headquarters for follow-up and monitoring, while coordinating with existing initiatives and the private sector. Simultaneously, build a network of overseas offices for both public and private entities.	Establish a public-private partnership platform and commence follow-up/monitoring during FY2025. Establish a network of public and private overseas offices during FY2025.
	Cabinet Office (Director general for policy planning [State Minister in Charge of Economic Security])	Based on the "Act on the Promotion of Ensuring National Security through Integrated Implementation of Economic Measures", the councils established under this Act (including any	—

		councils subsequently established), taking into account the status of individual projects and council discussions, international standardization, and support measures will be studied as necessary.	
	MIC	The Beyond 5G New Business Strategy Center, established to strategically advance Beyond 5G intellectual property and standardization activities under private-sector business strategies, will promote industry-academia-government collaborations in international standardization and intellectual property within the information and communication field. It will also undertake activities related to awareness raising and information dissemination.	Implement industry-academia-government collaborations initiatives / Conduct information dissemination through seminars and other activities
	MEXT	In the fusion energy field, strengthen international standardization activities through industry-government-academia collaboration and international partnerships,	(KPIs) Regarding international standardization in the fusion energy field, the following achievements are targeted by FY 2026: a) Complete the outline of

		in cooperation with the National Institutes for Quantum Science and Technology (QST).	the international standards draft. b) Develop streamlining and optimization proposals for standards based on ITER equipment design/manufacturing experience and the latest knowledge. c) Begin deliberations on international standardization for the structural specifications of superconducting coils (key equipment) and initiate drafting of the structural specifications for the vacuum vessel. d) Establish a human resources development program utilizing webinars, technical experience/training sessions, academic conferences/seminars, exchanges with international organizations, and media. e) Establish a human resource development scheme and dispatch human resources to international organizations. f) Develop an environmental preparation plan, including a testing plan and testing

			implementation system, to acquire the necessary supporting data for establishing international standards. Simultaneously, advance the acquisition of supporting data using existing equipment. (KPI) Based on the above achievements, FY 2027 to R2029 will advance the international standardization of construction standards for major equipment such as superconducting coils and reflect them in fusion energy system construction activities. Continue the human resource development program to cultivate management personnel with international experience who can drive international standardization from a holistic perspective, in addition to researchers and engineers. Continue acquiring data serving as the technical basis for international standardization using existing testing facilities, while also developing new testing facilities and

			other infrastructure to accelerate the acquisition of supporting data and engineering data.
	MAFF	Establish a domestic network for international standardization activities in agriculture, forestry and fisheries products, and food sectors (reprinted).	Expand the export value of agricultural, forestry and fishery product and food (5 trillion yen by 2030)
	METI	The government will lead strategic standardization activities in the pilot fields of quantum technology, perovskite solar cells, hydrogen and ammonia, bio-based manufacturing, and the data collaboration infrastructure (reprinted).	Progress in the consideration of international standardization strategies in each field.
	MLIT	In the construction machinery field, work with domestic bodies to comprehensively promote the strengthening of Japan's industry, academia, and government collaborative framework for DX and GX in construction machinery, and enhance international standardization activities.	Formulate a standardization strategy for DX and GX in construction machinery by FY 2026.
		In the architectural field, promote R&D with taking into account the international	Participation in the draft preparation of ISO and the other activities by specialized human

		standardization by the National Institute for Land and Infrastructure Management and the National Research and Development Agency of Building Research Institute collaborating with companies, universities, etc., thereby strengthening the human resource base to supports the sustained promotion of international standardization activities.	resources who support sustainably international standards activities in the architectural field (participation in TC/SC/WG and domestic committees)
		Based on international trends in port and terminal international standardization, develop a domestic review framework for Japan's port sector and cultivate international standardization human resources.	Participation of specialized human resources in the port field in the creation of ISO drafts (participation in TC/SC/WG and domestic committees)
		By Industry-government-academia partnership (“Public-Private Committee on New Technologies toward Decarbonization of Aircraft”), promote international standardization of new environmental technologies for decarbonization of aircraft (electrification,	Establishment of a domestic body in the aircraft and equipment industry by the end of FY 2025, the number of participating companies in the above domestic body, and the number of participants in committees of the International Organization for Standardization.

		hydrogenation, weight-saving, and efficiency improvement), and establishing a domestic body as the central domestic coordination and strengthen human resources.	
		Industry, academia, and government collaborations will work together in the water and sewage sector to strategically pursue international standardization for technologies related to core Japanese corporate technologies.	Number of ISO-related meetings attended by Japanese experts in the field of water and sewage
	MOE	Propose specifications for manually loaded garbage collection vehicles in collaboration with concerned government agencies and industry associations. For SRF, a fuel resource contributing to the circular economy and decarbonization, define its fuel quality and product safety. Work to ensure Japan's mainstream RPF (“solid waste fuel" primarily made from waste paper and plastic”) is included in ISO standards, while also sharing the approach	Aim to establish an ISO standard for the testing method of bulk density for SRF by around October 2025.

		to JIS standards concerning RPF.	
		Given the growing importance of rulemaking in environmental fields such as climate change countermeasures, the circular economy, and nature restoration, the government, business community, and research institutions will advance international standards activities in a unified manner.	(KPIs) Climate Change ・Include GOSAT-based national absorption and emission estimation technology in the IPCC guidelines that define greenhouse gas calculation methods by country. ・By FY2025, prepare for and conduct one evaluation of emission reduction projects' effectiveness. ・Expand Japan's environmental infrastructure export market and secure a competitive advantage through market rule development. (KPIs) Circular Economy ・ Based on the development of the disclosure scheme and contributions to GCP ver.1.0 development, develop draft sector-specific disclosure guidance while advocating to the WBCSD for its formulation.

			・Complete circulation indicators and environmental impact reduction estimation methods for the target value-chain, and collaborate with concerned government ministries and agencies to pursue standardization activities for international standards. (KPIs) Nature Restoration ・Formulate multiple (approx. 2-3 items) Japan-specific strategies by FY 2026, both cross-disciplinary and for specific areas, anticipating rulemaking and market creation in the nature positive field.・Convene the domestic deliberative committee corresponding to ISO/TC331 at least once a year.
		Considering the growing importance of rulemaking in environmental fields such as climate change countermeasures, the circular economy, and nature restoration, develop foundational frameworks to promote behavioral change among companies, foster human	(KPIs) Climate Change ・Include the national absorption and emission estimation technology using GOSAT in the IPCC Guidelines. ・By FY2025, prepare for and conduct one evaluation of emission reduction projects' effectiveness.

		resources development, and advance standardization activities in each field.	・Expand Japan's environmental infrastructure export market and secure a competitive advantage through the development of market rules. (KPIs) Circular Economy ・As part of development beyond GCP ver. 1.0, encourage the WBCSD to establish sector-specific disclosure guidance while working to incorporate the proposed guidance into GCP ver. 2.0. ・Complete the circulation indicators and environmental impact reduction estimation methods for the target value-chain, and collaborate with concerned government ministries to advance standardization activities for international standards and establish supporting frameworks including certification systems. (KPI) Nature Restoration ・Develop an internationally competitive and innovative environmental impact visualization tool by FY 2025.

② Establish frameworks for sharing and matching knowledge, expertise, and human resources information.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	In coordination with existing initiatives, establish a centralized consultation service alongside a platform for sharing and matching expertise, know-how, and human resources information.	During FY 2025, investigate domestic and international circumstances while advancing needs assessment, and begin establishing contact windows and venues.
	MAFF	Formulate an International Standardization Strategy in agriculture, forestry andfisheries products, and Food sector (Reprinted)	Expand the export value of agricultural, forestry and fishery products, and food (5 trillion yen by 2030)
		Build a domestic network for international standardization activities in agriculture, forestry and fisheries products, and food sectors (reprinted).	Expand the export value of agricultural, forestry and fishery products, and food (5 trillion yen by 2030)
	MLIT	By Industry-government--academia partnership (“Public-Private Committee on New Technologies toward Decarbonization of Aircraft”), promote international standardization of new environmental technologies for the decarbonization aircraft (electrification, hydrogenation, weight saving, and efficiency improvement), and	Establishment of a domestic body in the aircraft and equipment industry by the end of FY2025, the number of participating companies in the above domestic body, and the number of participants in committees of the International Organization for Standardization.

		establishing a domestic body as the central domestic coordination , and strengthen human resources (reprinted).	
③ Strengthen coordination between ministries and agencies, and between the national and local governments.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Convene the “Task Force for Promoting the Utilization of Standards,” composed of key ministries and agencies responsible for advancing international standardization strategies, at an appropriate time. This will facilitate information sharing on international standards activities within each ministry and agency, as well as measures to promote them, thereby fostering collaboration to implement effective measures concerning international standards across the entire government.	Hold at least once a year at appropriate times

(4) Enhancing international collaboration

Sub-category of measures	Ministries	Measures and policies	KPIs
① Engage in international standardization human resources development, and networking.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Build a cross-sectional, multi-layered G2G cooperation framework with ASEAN countries in mind, in collaboration with relevant ministries and agencies.	Identify target countries/regions for cooperation and commence discussions within FY2025 / Initiate consensus agreements and related measures

			based on those consensus agreements by FY2026.
		Through public-private partnership forums and digital platforms, utilize initiatives in specific fields to enlighten companies and research institute on shifting perspective and contribute to human resource development (reprinted).	Starting in FY2025, monitor Japanese participation in organizations and meetings with significant influence on international standards through public-private partnership forums and other channels.
	MAFF	Provide training on food-related standards in collaboration with universities in the ASEAN region	Expand the export value of agricultural, forestry and fishery products, and food (5 trillion yen by 2030)
② Promote the use of the International Mutual Recognition Arrangement, regulatory harmonization, and the adoption of standards.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Build a cross-sectional, multi-layered G2G cooperation framework with ASEAN countries in mind, in collaboration with relevant ministries and agencies.	―
	MIC	Actively and strategically advance international standardization to enable the establishment of technical standards for highly efficient wireless technologies that reflect Japan's frequency scarcity situation and serve as internationally harmonized technologies.	Number of contribution documents submitted by Japan to the ITU, average scores from ongoing and final evaluations by external experts, and the number of ITU recommendations formulated with Japan's involvement
		Promote international collaborative research with relevant countries to	Conduct international collaborative research with strategic partner

		facilitate strategic international standardization through collaboration with strategic partners from the R&D stages.	countries
	MEXT	In the field of fusion energy, strengthen international standardization activities through industry-government-academia collaboration and international partnerships, in cooperation with the National Institutes for Quantum Science and Technology (QST). (reprinted).	(KPIs) Regarding international standardization in the fusion energy field, the following achievements are targeted by FY2026. Complete the outline of the international standards proposal. Develop streamlining and optimization proposals for standards based on ITER equipment design and manufacturing experience and the latest knowledge. Begin deliberations on the international standardization of the structural specifications for superconducting coils, a key component, and commence drafting the structural specifications for the vacuum vessel. Develop a human resource development program utilizing webinars, technical experience/training sessions, academic conference/seminar

			activities, exchanges with international organizations, and media. Establish a human resource development scheme and dispatch personnel to international organizations. Build an environmental improvement plan, including test plans and test implementation systems, to acquire the necessary supporting data for developing international standards. Concurrently, advance the acquisition of supporting data using existing equipment. (KPIs) FY2027–FY2029: Based on the above achievements, advance the international standardization of construction specifications for key equipment such as superconducting coils and incorporate them into fusion energy system construction activities. Continue the human resource development program to cultivate management personnel who can drive international

			standardization from a holistic perspective, in addition to researchers and engineers, using international standardization expertise. Continue acquiring data that serves as the technical basis for international standardization using existing testing facilities, while also establishing new testing facilities and other environments to accelerate the acquisition of supporting data and engineering data.
	MHLW	Through training programs on pharmaceutical and medical device regulations for officials from regulatory authorities in Asian countries and other regions, conducted by the Asian Training Center (ATC) established within the Pharmaceuticals and Medical Devices Agency (PMDA), promote the proliferation and adoption of internationally harmonized standards and guidelines for pharmaceutical regulations in each country.	Conduct training sessions for Asian countries at least five times per year, including explanations of internationally harmonized standards and guidelines related to pharmaceutical regulations. Furthermore, achieve a satisfaction rate of 75% or higher on a five-point scale (with 3 being “Good”) in post-seminar questionnaires.

		Research on strengthening food hygiene management and monitoring guidance, information gathering and research on the international harmonization of hygiene management standards, and other measures to ensure food safety.	Participate in relevant subcommittees of the Codex Alimentarius Commission, which develops international food standards, at least 10 times cumulatively by FY 2029, contributing to standards development.
	MAFF	Develop an internationally recognized certification framework (conclude international mutual recognition agreements between JASaff and IAF/APAC)	Expand the export value of agricultural, forestry, and fishery products and food (5 trillion yen by 2030)
		To advance the international standardization of smart farming for ASEAN deployment, collaborate with Western forum standardization bodies (e.g., AgGateway) to develop and standardize data exchange specifications for rice paddy farming, prevalent in Asia, and for small-to-medium-sized smart agricultural machinery. This will facilitate the expansion of Japan's smart farming technologies into ASEAN.	FY2025: Formulation of business models utilizing international standards for Japanese corporate expansion into the ASEAN region (5 or more cases), among other initiatives FY2026: Commencement of business development by Japanese companies based on the Open-Close Strategy, among other initiatives
	METI	To reduce trade costs and build resilient supply chains, guidelines will be established to support	－

		Japanese companies in implementing international standards set by the United Nations Centre for Trade Facilitation and Electronic Business (CEFACT). This initiative aims to advance the digitalization of trade procedures (Trade DX) using trade platforms and promote data integration based on international standards.	
	MLIT	Promote the overseas expansion and international standardization of technical standards through participation in the WG of the Permanent International Association of Navigation Congresses (PIANC).	Number of times attending PIANC General Assembly meetings (5 times/year)
		Undertake initiatives to promote the adoption of ISO 31512 (ISO standard for BtoB cold chain logistics services), for which final consensus on standardization was reached within the Technical Committee (TC315) on cold chain logistics established by the International Organization for Standardization (ISO) based on Japan's proposal.	Aim to undertake standards development related to cold chain logistics formulated by other governments or organizations with Japan's cooperation.
		Promote the international standardization of Japan's technologies and standards	In the field of automated driving, contribute to the development of

		through active participation in the United Nations World Forum for Harmonization of Vehicle Regulations (WP.29), which establishes international automotive standards.	international standards by leading global discussions in collaboration with automobile manufacturers.
		In collaboration with the ISO, World Meteorological Organization (WMO), and other international organizations, promote the development of international standards for early warning systems in water disaster prevention and meteorological/hydrological fields. This aims to expand investment in these areas within the international community and foster the formation of a global market where relevant companies, including Japanese enterprises, can thrive.	Number of international standards documents developed and released on water disaster prevention; number of international standards documents developed and released on early warning systems in the meteorological and hydrological field
		In the field of 3D city modeling, in collaboration with the Open Geospatial Consortium (OGC), an international standards organization working on the standardization of geospatial information, new standards will be developed. Furthermore, the construction of urban	—

		digital twins is also progressing in the Southeast Asian region.	
		The National Institute of Maritime, Port and Aviation Technology conduct research with international standards and standardization in mind from the planning stage of research projects. It is also contributes to international standardization activities by participating in the preparation of proposals for international standards to organizations including the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO), the International Organization for Standardization (ISO), and the Permanent International Association of Navigation Congresses (PIANC). (reprinted)	Number of meetings attended for international standards.
	MOE	Promote mutual certification between Japan's Type I environmental label “Eco Mark” and overseas Type I environmental labels	Expand the scope of products covered by mutual certification and increase utilization
③ Strengthen cooperation with ASEAN countries and others.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Establish a cross-sectional, multi-layered G2G cooperation framework with ASEAN countries in mind, in collaboration with	Identify target countries/regions for cooperation and commence discussions within FY2025 / Initiate

		relevant ministries and agencies (reprinted).	consensus agreements and related measures based on those consensus agreements by FY2026
	MIC	Cooperation in the Asia-Pacific Region (Asia-Pacific Telecommunity [APT])	Number of training programs and projects implemented with Japan's financial contributions
	MHLW	Through training programs on pharmaceutical and medical device regulations for officials from regulatory authorities in Asian countries and other regions, conducted by the Asian Training Center (ATC) established within the Pharmaceuticals and Medical Devices Agency (PMDA), promote the proliferation and adoption of internationally harmonized standards and guidelines for pharmaceutical regulations in each country (reprinted).	Conduct training sessions for Asian countries at least five times per year, including explanations of internationally harmonized standards and guidelines related to pharmaceutical regulations. Furthermore, achieve a satisfaction rate of 75% or higher on a five-point scale (with 3 being “Good”) in post-seminar questionnaires.
	MAFF	To advance the international standardization of smart farming in ASEAN, collaborate with Western forum standardization bodies (e.g., AgGateway) to develop and standardize data exchange specifications for rice paddy farming and small-to-medium smart	FY2025: Formulation of business models utilizing international standards for Japanese companies entering the ASEAN region (5 or more cases) and others. FY2026: Commencement of business expansion by Japanese companies based on the Open-Close Strategy and others.

		agricultural machinery prevalent in Asia, thereby facilitating the expansion of Japanese smart farming technology into ASEAN.	
		Implement bilateral collaborative research with relevant countries and engage with the ASEAN Secretariat to secure the adoption and inclusion of Japan's GHG reduction and absorption technologies in the ASEAN Taxonomy's Technical Screening Criteria (TSC). Furthermore, by harmonizing Japan's carbon credit methodology (J-Credits) with local ASEAN environmental conditions, aim to facilitate the deployment and market development of Japanese companies' GHG reduction and absorption technologies in ASEAN.	FY2025: Implementation of field verification in ASEAN for applying Japan's carbon credit methodology, and others. FY2026: Adoption of at least three Japanese technologies into the ASEAN Taxonomy's TSC, and others. FY2027: Adoption of Japanese technologies into the TSCs of Indonesia and Vietnam, and others.
	METI	Collaborate with ISO Regional Coordinators, IEC Regional Offices, and national standard-setting institutions; participate in relevant ASEAN meetings, the APEC Standards and Conformity Subcommittee (SCSC), the Northeast Asia Standardization Cooperation (NEAS)	Host symposiums and seminars; participate in the NEAS Forum, PASC, and others

		Forum, and the Pacific Area Standards Conference (PASC).	
	MLIT	In the port sector, promote the overseas deployment of technical standards for port facilities based on Japan's technical standards, tailored to local natural conditions and technical and economic levels.	Conduct consultations with target countries for technical standards formulation support
		In the port sector, through activities such as the Japan-ASEAN Port Engineers Meeting and other collaborative port technology research projects, aim to resolve technical challenges common to ASEAN and Japan.	Number of participating countries in the Japan-ASEAN Port Engineers Meeting: 10 countries
		In the field of automotive standards and certification systems, promote the international standardization of automotive safety and environmental standards and cooperation with Asian countries, including ASEAN nations, through initiatives such as public-private joint forums.	Number of participating countries in public-private joint forums: 10 countries
	MOE	In the field of ISO/TC147 (Water Quality), multiple standards development concerning monitoring methods such as sampling	Within FY 2025, standards development for [ISO 5667-27 (Sampling)] will be completed.

		and analysis of microplastics are progressing in parallel. SC6 (Sampling) has incorporated the content of international guidelines on monitoring methods for drifting microplastics, developed under Japanese leadership. standardization will promote the collection of further data for effective countermeasures, as well as facilitate the international expansion of Japanese companies and researchers requiring related technologies.	
		Regarding waste-to-energy projects within the circular industry, conduct research on strategies for introducing Japan's waste-to-energy technologies, leveraging Japan's strengths, to advance solutions to waste issues in other countries through the adoption of Japan's waste-to-energy technologies.	Finalize the Public-Private Partnership (PPP) Procurement Guidelines for waste-to-energy projects in the Asian region, developed in collaboration with the Asian Development Bank (ADB) under a Memorandum of Cooperation with the Ministry of the Environment (MOE), by FY 2025.
		Support project for improving the transparency of greenhouse gas emissions	Secure three countries to support the establishment of systems that enhance corporate transparency regarding greenhouse gas emissions by 2030.

	Cabinet Office (Secretariat of Science, Technology and Innovation Policy), METI, MLIT	Regarding smart cities, promote the utilization and proposal of relevant international standards in collaboration with domestic and international standardization experts, taking into account trends in intellectual property and standardization by other countries and efforts for the strategic and international use of international standards. Furthermore, actively utilize international standards when promoting overseas expansion through initiatives such as the “Smart JAMP” overseas smart city support measures through mutual cooperation between Japan and ASEAN, which involves collaboration among concerned government ministries.	－
④ Host an international conference on international standards in Japan.	Cabinet Office (Secretariat of Intellectual Property Strategy Headquarters)	Communication of Japan's standardization initiatives at international conferences	Implement communication at international conferences during FY2025
	METI	Promote efforts to host international conferences in specific fields under ISO and IEC, while also advancing concrete preparations for Japan's bid to host the 2029 IEC General Meeting.	Host international conferences in specific fields under ISO and IEC in Japan

	MIC	In the field of mobile phones and related technologies, as part of contributing to standardization activities at the International Telecommunication Union alongside domestic stakeholders, Japan hosted relevant meetings in FY2025.	Number of domestic participants in meetings related to Japan's hosting of the ITU-R SG5 WP5D meeting in FY2025

That concludes this report