JANUARY 31, 2023

REPORT OF THE EXPERT GROUP ON DATA FREE FLOW WITH TRUST

Table of Contents

Introduction

The development of digital technologies and industries is closely related to various social interests, including privacy, freedom of expression, cyber security, and protection of trade secrets and intellectual property rights. The Report of the Expert Group on Data Free Flow with Trust (hereinafter called the "Expert Group") issued in February 2022 (hereinafter called the "Interim Report") stated "the Government of Japan, returning to the starting point of what is necessary to promote healthy development of the global economy and society and establish free flow of data by globally distributing economic and social values and benefits produced by cross-border transfer of data, advocated "Data Free Flow with Trust (DFFT), a vision of free flow of data based on *trust* as the foundation. In line with this, under the "Data Free Flow with Trust (DFFT)" framework, various social values are not in trade-off for creating digital economy ecosystem by utilizing data and activating the digital economy globally. In order to promote innovation and digital transformation of society using data, and to confront various local, national, and international issues using digital technology, it is necessary to harmonize the various social values and benefits related to data.

In addition, to facilitate international data flows (in this report, unless otherwise specified, data includes all kinds of data that stakeholders intend to distribute, including personal data as well as non-personal data such as industrial data), *trust* is necessary not only between governments, but also between all stakeholders involved in the data lifecycle, including companies, civil society, experts, and governments. In order to achieve multi-stakeholder and multi-level cooperation with a wide range of stakeholders, including the public and private sectors, it is necessary to formulate policies to secure trust across borders using various tools such as international rules, standards, certification, regulatory cooperation, and technologies in a way that supplements traditional international institutions of inter-government cooperation.

Regarding the problems of cross-border transfer of data, which is immensely complex, the Expert Group was established in November 2021 to analyze the barriers that governments, companies, civil society, and other stakeholders recognize in the actual cross-border transfer of data, to clarify policy issues and make recommendations to the government from an expert's perspective by examining specific policies and international cooperation to address these issues.

As clearly stated in the Interim Report, the basic approach of the Expert Group in the

realization of DFFT is "pragmatism". It is necessary to secure smooth cross-border transfer of data not only for business but also for maintaining and streamlining current diverse value chains and supply chains and responding to various common issues of international society such as food security, green transition, expansion of opportunities of work and education, and prevention of pandemics. On the other hand, it is also important for the global data governance to reflect the individual position of each country, and it is still important to meet various political requirements such as privacy, security, and intellectual property rights in facilitating cross-border transfer of data. The basis of realizing DFFT is to reach a consensus among stakeholders for the goal of "securing smooth cross-border transfer of data" and strategically avoid conflicts regarding ideologies and priorities of political requirements, and to deepen mutual understanding among stakeholders and pursue concrete outcomes based on flexible principles of action for effective cooperation for facilitating data flows.

From this perspective, last year, the Expert Group clarified the results of interviews with companies and legal surveys focusing on the following three issues, in order to identify barriers in cross-border transfer of data.
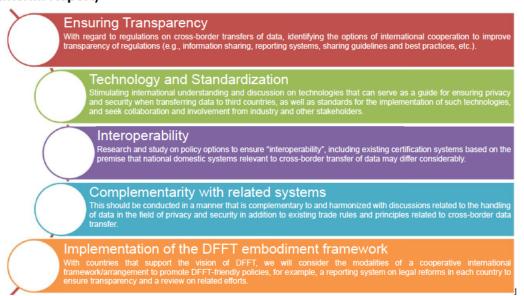
[1] How cross-border transfer of data is performed in utilizing data by companies (identification of life cycles of data, stakeholders involved in the life cycles, and cross-border transfer patterns)
[2] What kinds of barriers companies face in cross-border transfer of data
[3] From what kinds of viewpoints each country enacts data-related regulations

We back-calculated from the goal "cross-border transfer of necessary data to keep economic growth and social prosperity" and identified *issues* with cross-border transfer of data by subjects who actually use data in order to consider specific mechanisms and systems to secure the necessary trust for realizing DFFT. To address these issues, we identified five domains to be the core of realizing DFFT. These five domains focus on "supplementary" policies on arrangements of the current international trade rules.

This year, the Expert Group discussed the following five domains identified last year to realize each domain based on presentations by the members. Chapters 1 to 5 of this report describe the contents of the discussion and Chapter 6 summarizes the points of the past discussion based on the relationships between Chapters 1 to 5. This report describes the Problem statement based on the problem-setting of the Interim Report, the opinions of members on such problems, and solutions suggested by the Expert Group (conclusion) in

this order based on the format adopted by the Expert Group this year. Such approach, combination of identification of issues and policy recommendations for solving them, and analysis of cross-border transfer of data throughout whole data life cycle is also employed in the new study project of DFFT launched by the Organization for Economic Co-operation and Development (OECD).

Figure 1. Five core domains toward realizing DFFT (from the summary material of the Interim Report)

Ensuring Transparency
With regard to regulations on cross-border transfers of data, identifying the options of international cooperation to improve transparency of regulations (e.g., information sharing, reporting systems, sharing guidelines and best practices, etc.).

Technology and Standardization
Stimulating international understanding and discussion on technologies that can serve as a guide for ensuring privacy and security when transferring data to third countries, as well as standards for the implementation of such technologies, and seek collaboration and involvement from industry and other stakeholders.

Interoperability
Research and study on policy options to ensure "interoperability", including existing certification systems based on the premise that national domestic systems relevant to cross-border transfer of data may differ considerably.

Complementarity with related systems
This should be conducted in a manner that is complementary to and harmonized with discussions related to the handling of data in the field of privacy and security in addition to existing trade rules and principles related to cross-border data transfer.

Implementation of the DFFT embodiment framework
With countries that support the vision of DFFT, we will consider the modalities of a cooperative international framework/arrangement to promote DFFT-friendly policies, for example, a reporting system on legal reforms in each country to ensure transparency and a review on related efforts.

Chapter 1: Ensuring Transparency

  1. Problem statement

As a result of identifying issues in cross-border transfer of data by companies, etc., the Interim Report analyzed that the number of regulations on processing of data continued to increase in various policy fields, the relationships between regulations in different fields are difficult to understand, there is a language barrier, and there are difficulties such as various circumstances unique to each country in understanding the whole picture of the related domestic laws and appropriate compliance with laws. We identified "Ensuring Transparency" as one domain toward realizing DFFT as countermeasures to these issues.

"Ensuring Transparency" contributes to benefits of all stakeholders related to life cycles of data by reducing the cost for compliance, so it is important to share, among public and private stakeholders, the current situation and issues on transparency of the regulations of each country and consider the specific contents of international cooperation to overcome the issues (sharing of information, notification systems, sharing of guidelines and best practices, etc.).

Therefore, this year, the Expert Group analyzed the international trade laws with any established system of ensuring transparency ("notification system") and considered whether they are applicable to cross-border transfer of data, in order to consider specific measures to solve the issue of "ensuring transparency" identified in the Interim Report.

  2. Opinions of Experts

This chapter refers to the mechanism of ensuring transparency established in the existing international trade system. First, we reviewed the existing system, considered its effectiveness and issues, and identified the elements to be met to ensure transparency of the systems related to cross-border transfer of data and their management.

(1) Discussion topics

Systems based on international trade agreements such as the World Trade Organization (WTO), Economic Partnership Agreement (EPA), and Free Trade Agreement (FTA) and systems of international institutions which handle international trade issues (in addition to other fields) such as the United Nations Conference on Trade and Development (UNCTAD) and OECD have many mechanisms of ensuring transparency such as announcement/notification, request for inquiry/provision of information, setup of inquiry offices, counter-notification, investigation/report, and provision of databases. These

mechanisms are roughly divided into (a) "mechanism to grasp regulations of each country" and (b) "mechanism to discuss and have a dialogue about the regulations of each country."

(a) Mechanism to grasp the regulations of each country

A "mechanism to grasp the regulations of each country" is a mechanism to obtain information to understand the enactment and presence of regulations through reporting, notifying, inquiring, announcing, etc. Systems corresponding to this can be classified into [1] to [5] below (Figure 2).

  [1] Announcement by the country taking a measure
  [2] The country taking a measure makes a report/notification to a specific forum
  [3] Another member country/contracting country makes a notification to a specific forum (counter-notification)
  [4] Another member country/contracting country inquires/requests the country taking a measure to provide information
  [5] Investigation/report by an international institution

(b) Mechanism for discussing regulations of each country

A "mechanism for discussing regulations of each country" is a mechanism that provides opportunities to ask questions and discuss regulations in a specific forum, to understand the details of the regulations and express concerns. For example, in addition to the following cases [1] through [3] in WTO and EPAs (Figure 3), other international institutions such as the OECD are also used as a forum to discuss trade measures among countries.

  [1] Discussion and monitoring at various WTO committees, etc.
  [2] WTO's Trade Policy Review Mechanism (TPRM)
  [3] Mechanism of dialogue in EPA

Figure 1. Mechanism to grasp the regulations of each country

Type	Summary
[1] Announcement by the country taking a measure	In various WTO agreements and FTA/EPAs, the country taking a measure is required to announce the trade-related measures covered by the agreement. If feasible, it may be required to make an announcement, etc. by electronic means such as an English website.
[2] The country taking a measure	In WTO, under TPRM, each member country is required to report its trade policies and practices to the Trade Policy Review Body

makes a report/notification to a specific forum	(TPRB), which is composed of all member countries, every few years.
	In WTO, a country taking a measure is supposed to notify the relevant committees, etc. of certain measures that affect trade.
	In OECD, countries are required to notify the OECD Investment Committee of changes in their investment policies and other information in accordance with the code of liberalization and the investment liberalization process.
[3] Another member country/contracting country makes a notification to a specific forum (counter-notification)	WTO allows notification of measures taken by other member countries on trade in services and subsidies.
[4] Another member country/contracting country inquires/requests the country taking a measure to provide information	WTO has a system for requesting explanations and information on certain measures taken by other member countries with regard to subsidies, mandatory standards, and intellectual property rights. It also states that each country should set up an inquiry office to respond to inquiries from other countries regarding measures affecting services, mandatory and voluntary standards, sanitary and quarantine measures, etc.
	The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Japan-EU EPA also have a system of making information requests and inquiries to other contracting countries.
[5] Investigation/Report by an international institution	In WTO, under TPRM, the WTO secretariat periodically submits and publishes investigation reports on the trade policies and practices of each member country.
	UNCTAD collects and organizes information on Foreign Direct Investment (FDI) policies and Non-Tariff Measures (NTMs) of each country, and publishes this information on its portal site.
	OECD provides a database of regulations of the major countries that affect trade in services and digital trade.

Figure 2. Cases of "Mechanism for discussing the regulations of each country"

Case	Summary
[1] Discussion and monitoring at various WTO committees, etc.	The Technical Barriers to Trade (TBT) committee, Sanitary and Phytosanitary Measures (SPS) committee, subsidies committee, trade in services council, Trade-Related Aspects of Intellectual Property Rights (TRIPS) council, etc. discuss measures notified by member countries including consistency with agreements at their regular or special meetings as appropriate. Minutes of these committees are published.
[2] WTO's TPRM	In TPRM, in addition to the reports submitted by the reviewed countries, the trade-related measures of the examined countries are discussed through the submission of written questions and answers and the examination meeting. This is based on a report prepared separately by the Secretariat considering the contents of notifications, announced information, information obtained through inquiries and hearings, etc. The results of the discussions are published in the form of minutes, etc.
[3] Mechanism of dialogue in EPA	In the Japan-EU EPA, for example, joint committee has been established with the responsibility of reviewing and monitoring the implementation and operation of agreements (Article 22.1), and various technical committees/working groups have been established as subordinate organizations (Articles 22.3 and 24.4) where inter-government discussion is conducted. The results of the discussions are published in the form of minutes.

In addition, it is important to involve not only governments but also all stakeholders in the data life cycle, in other words, to have a multi-stakeholder perspective, in consideration of cross-border transfer of data. While main participants in the international trade institution to increase transparency of the existing regulations are governments, and though the participation of other stakeholders is not necessarily institutionalized, mechanisms for discussions and problem-solving involving multiple stakeholders have been introduced in some EPAs, FTAs, and international institutions. Examples are shown in [1] through [3] below. In addition, in the OECD, Trade Union Advisory Committee (TUAC), which consists of labor unions of member countries, Business and Industry Advisory Committee (BIAC), which consists of private economic organizations, Internet Technical Advisory Committee

(ITAC), which consists of organizations related to Internet technologies, etc. consult with the OECD and committees as stakeholder representatives.

[1] Labor chapter of the CPTPP Agreement (Chapter 19)
[2] Trade and sustainable development chapter of the Japan-EU EPA (Chapter 16)
[3] Electronic commerce chapter of the Regional Comprehensive Economic Partnership (RCEP) Agreement (Chapter 12)

The following table shows an overview of the multi-stakeholder participation mechanisms in [1] through [3] above.

Figure 3. Cases of multi-stakeholder participation

Case	Summary
[1] Labor chapter of CPTPP (Chapter 19)	Governments shall receive written opinions from all contracting countries on matters related to the provisions of the Labor Chapter (e.g., violations of the provisions) and will respond in a timely manner. (Article 19.9) Stakeholders may file an appeal with the labor council established between the governments of the contracting countries. (Article 19.14) Seek the opinions and participation of stakeholders (including representatives of workers and employers) from your country with regard to cooperation between the contracting parties. (Article 19.10)
[2] Trade and sustainable development chapter of the Japan-EU EPA (Chapter 16)	Consult with the representative domestic advisory body in a manner where stakeholders are balanced. (Article 16.15) Have joint dialogue with civil society in both contracting countries. (Article 16.16) (Stakeholders of governments and private sectors from both Japan and the EU shall participate and exchange views on topics such as trade and sustainable development, the environment, and labor.)
[3] Electronic commerce chapter of RCEP agreement	Including dialogue with stakeholders when appropriate in the dialogue on electronic commerce between the contracting countries. (Article 12.16)

(Chapter 12)	

(2) Viewpoints of discussion

In order to identify the effectiveness of the existing international trade institution and the issues, we picked the SPS Agreement, in which the notification system generally works well, and the subsidy agreement, in which non-compliance of the notification obligation has been a problem, as examples, and considered the factors that may have affected the effectiveness of the system's functions.

(a) Factors that make the notification system of the SPS Agreement generally work

With respect to the WTO's SPS Agreement, for example, the following shows three factors that contribute to the functioning of the notification system.

[1] Benefits for ensuring transparency (incentive is designed)

The incentive design may be working well, as it is believed that realizing the sanitary and phytosanitary measures may be beneficial in relation to ensuring compliance with regulations regarding the import and export of agricultural products, etc., and facilitating imports and exports.

[2] Clarity of the scope of the covered measures (the scope of measures to be notified is clear)

The scope of the sanitary and phytosanitary measures to be notified is clear. If there are unclear targets for which transparency is to be ensured, the scope of investigation may be broad, or conversely the target measures may be arbitrarily narrowed, and it is difficult to take action or actions are not taken as expected.

[3] Sharing of the view of measures among countries

The view of the desirable sanitary and phytosanitary measures is shared among the countries through the accumulation of actual notifications from the SPS committee, which is a forum for discussion and dialogue established under the SPS Agreement.

(b) Factors contributing to the problem of non-compliance of the notification obligation of the subsidy system.

With regard to the WTO subsidy system, the following shows three possible factors that contribute the problem of non-compliance of the notification obligation.

[1] Lack of benefits for ensuring transparency (incentive is not designed)

The risk of being subject to a WTO suit or countervailing duty if the existence of the subsidy is revealed, while the benefits of revealing it may be small.

[2] Unclear definition of "subsidy" (subjects of ensuring transparency are unclear)

For example, in order to determine the subsidy eligibility of a low-interest loan that could be a "subsidy" under the WTO Subsidy Agreement, it is necessary to compare the actual loan conditions with market benchmarks to determine whether a "benefit" is granted by the loan. Therefore, if market research and interpretation of laws and regulations are required in considering the scope of ensuring transparency, there may be room for each country to make its own judgment on the scope of notification (the incentive to make a notification in accordance with the strict interpretation of the Agreement may be lost), or it may become difficult for member countries to respond due to limitations in their market research capacity and ability to interpret laws and regulations (capability).

[3] Lack of capability resources

Lack of capability resources for subsidy notification for each country and the heavy burden of subsidy notification.

The result suggests that it is important to ensure an "incentive" and "capability" in order to make the notification system work.

(3) Results of the discussion

Aiming for a specific proposal of institutional design to ensure transparency, we have organized the elements necessary to ensure them.

(a) Incentive

An incentive can be organized into positive and negative incentive aspects as follows.

[1] Improvement in awareness of the mutual benefits derived from ensuring transparency (positive incentive)

Improving transparency about the legal system of each state benefits those who are subject to the system by making it easier for them to understand and comply with the system, which improves data protection. This is especially important when regulatory authorities ensure compliance with regulations whose compliance conditions are difficult to monitor such as systems related to protection and transfer.

A shared understanding among countries that facilitate cross-border transfer of data is

mutually beneficial and is also a prerequisite for an incentive to work.

In order to foster such mutual understanding among countries, each country needs to confirm that facilitating cross-border transfer of data will encourage investments from other countries and the provision of better services, which in turn will benefit the domestic companies and users of services.

[2] Counter-notification, peer review, etc. (negative incentive)

The introduction of a monitoring system with reference to the international trade institutions, with counter-notification and inquiry of measures by other countries, as well as peer review monitoring systems such as the WTO's TPRM and international rules in the financial domain, and the establishment of a forum to discuss the systems recognized through these systems, can be an incentive for countries to report their own measures beforehand and provide information on such systems.[1] In addition, mechanisms to create peer pressure can improve an incentive in combination with a system with peer review. In fact, with regard to the notification of subsidies, there has been some discussion about strengthening the counter-notification mechanism to encourage notifications by member states.[2]

Therefore, peer review and monitoring systems among countries are also important in the context of ensuring incentives in DFFT.

(b) Capability

The major trends of capability are to improve the capacity of notifying parties and to reduce the burden for notification. In other words, the Expert Group examined the government's capacity to respond to the measures as the primary issue, as well as a means to complement that capacity.

In the following, we will organize efforts to contribute to capability based on this perspective of government response in [1], supplement and replace government response in [2] and [3], and measures with a nature of infrastructure development to reduce the burden of responses by governments, etc. in [4].

[1] Ensuring realistic feasibility of reporting of each country's system

To request reporting by each country, the reporting system has to be realistic in terms of capability and resources. Therefore, in order to minimize the reporting burden of each

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[1] There is a soft approach to peer pressure on states that do not follow certain principles.
[2] On January 14, 2020, in the joint statement of the Japan-U.S.-Europe trilateral trade ministerial meeting, it was proposed that an article be added to prohibit subsidies that are counter-notified by other countries without the subsidizing country notifying and providing information on its own by the deadline in order to ensure fulfillment of the notification obligation.

country, it is important to clarify the applicable systems and the reported contents.

A good example of this is to set a format for the subjects of the information collection and the reported contents in advance in a form that is easy for countries to describe, as has been done in surveys conducted by other international institutions. For example, "DFFT Inventory" was presented at the Expert Group as a questionnaire format (question items) to ask countries about the conditions of their systems for cross-border transfer of data, and such question items could be set up in advance and used[3]. "DFFT Inventory" assumes that 14 questions are described in an easy-to-answer order and format, including the applicable regulations, the scope of the regulations to be checked, the laws and regulations on cross-border transfer, the definition of "data" subject to cross-border transfer regulations, the requirements for the application of cross-border transfer regulations, and details of cross-border transfer regulation.

[2] Development of the Secretariat functions

The system for the Secretariat to ensure transparency has been introduced in several international trade systems, including the WTO's TPRM, OECD, and UNCTAD. It is recommended to consider the Secretariat's functions with reference to such past cases, because giving the Secretariat a unique role in ensuring transparency will complement notifications by states and help to improve transparency.

For example, the Secretariat can reduce the burden of primary surveys of each country by establishing a system in which the Secretariat is responsible for primary surveys, confirming its accuracy with each country, and updating the contents in response to the opinions of each country. In placing this burden on the Secretariat, it is also possible to establish the Secretariat in a semi-virtual manner to reduce the cost for setting up the Secretariat and strengthen the Secretariat's functions in ensuring transparency from the perspective of securing Secretariat staff from a wide range of countries/regions and with broad expertise.

[3] Information from the private sector

To supplement the capability and resources of governments and the Secretariat, information from the private sector can be considered. For example, it is possible to request private companies, industry associations, consumer groups, academia, experts, etc. to provide information, etc. on "DFFT Inventory."

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[3] Attachment of the committee members' explanatory materials presented at the 6th meeting of the Expert Group. The contents reported within the same material are as described above.

Furthermore, beyond the provision of information from the private sector, it is also possible for private companies to take the initiative and launch initiatives related to ensuring transparency, with the government handling backups and periodic reviews. However, since systems for cross-border transfer of data are formulated by national governments, initiatives by private organizations do not necessarily guarantee the legitimacy, correctness of contents, and authority. Therefore, is necessary to establish a mechanism to authorize initiatives by private organizations through the involvement of governments including a system design to supplement the legitimacy and correctness of information provided from private organizations.

[4] Infrastructure development using technologies and knowledge

Technologies and knowledge can simplify complex systems related to the visualization and mapping of each country's systems, which reduces the burdens of governments and the Secretariat.

Specifically, Reg Tech[4] is attracting attention in the field of regulation as an example of utilizing a technology.

As an example of knowledge utilization, it is assumed that key survey items for mapping a system can be structured in advance based on the knowledge on the system accumulated by knowledgeable people, etc., as in "DFFT Inventory" mentioned above.

By using these technologies and knowledge, it is expected that compliance costs can be reduced while improving the effectiveness of regulations and governance, as the infrastructures can quickly reflect changes in the regulations of each country.

3. Solutions of the Expert Group (conclusion)

The system design to ensure transparency should be based on two pillars: (1) "establishing a system for matching organized information on each country's system for cross-border transfer of data" and (2) "establishing a mechanism for the applicable system to work." Therefore, we propose as follows for these two pillars:

(1) Establishing a system for matching organized information on each country's system for cross-border transfer of data

As a precondition for establishing a system (e.g., "DFFT Inventory") for matching organized

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[4] Term coined by combining the words "regulation" and "technology," it means a mechanism for efficiently responding to regulations and ensuring compliance using technologies in business domains that are strictly regulated. Currently, it has been introduced mainly in the financial field and is expected to be used in various regulatory fields. The fields include a combination of monitoring by monitoring cameras and compliance judgment by AI.

information on each country's systems for cross-border transfer of data, first, it is necessary to ensure that the items to be organized in such systems are mutually beneficial to each country.

(2) Establishing a mechanism for the above-mentioned system to work

Next, it is necessary to establish a mechanism for a system for matching organized information on each country's system for cross-border transfer of data to work. Specifically, the following five courses of action are proposed: (a) "Forum for collecting and consolidating information and having discussion," (b) "Introduction of a system for notifications, counter-notifications, inquiries, etc." (c) "Development of the Secretariat functions," (d) "Mechanism for stakeholders to participate in the forum," and (e) "Utilization of technologies and knowledge to reduce the burden of governments, etc."

(a) Forum for collecting and consolidating information and having discussion

A forum for collecting and consolidating information and having discussion refers to the use of existing forums or the establishment of a new forum for doing this. For example, it is possible to consider the possibility of utilizing existing forums (OECD, Asia-Pacific Economic Cooperation (APEC), etc.) or establishing a new international forum and introducing a mechanism for notification, inquiry, counter-notification, etc. in such a forum. Another possibility is that the Secretariat, which is a forum in itself, can collect information on its own (survey based on published information and inquiry to governments).

It is assumed that this forum will be used not only to gather information, but also as a place for stakeholders to exchange opinions[5].

(b) Introduction of a system for notifications, counter-notifications, inquiries, etc.

In the forum, it is possible to introduce a mechanism for notifications, counter-notifications, inquiries, etc. In particular, in terms of giving incentives, counter-notifications and inquiries as well as the introduction of a peer review monitoring system may provide incentives to report home measures taken in advance and provide information about the system.

(c) Development of the Secretariat functions

The Secretariat functions may be developed, including the primary survey of systems and supplementation of voluntary notifications by states.

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[5] The place for dialogue and consultation in Chapter 5 (2) 3 is proposed based on this idea.

(d) Mechanism for stakeholders to participate in the forum

It is considered meaningful to have representatives of companies and civil society participate in a specific forum. However, such a stakeholder participation mechanism is still under development in the existing international trade system, so a stakeholder participation mechanism which has not been introduced in the existing framework deserves to be considered in the system design for improving transparency regarding cross-border transfer of data.[6]

In aiming for multi-stakeholder involvement in discussion and problem-solving, further consideration should be given to the mechanism by which the government responds to inquiries from companies and individuals and the necessity and mechanism for notifications to be given by individual companies and individuals to the forum.

(e) Utilization of technologies and knowledge to reduce the burden of governments, etc.

Aim to contribute to capability using technologies and knowledge related to reducing the burden of governments, etc. and tools that contribute to replacement and supplementation of human resources in constructing and organizing databases. For example, for the utilization of knowledge, it is possible to consider a mechanism such as "DFFT Inventory" to format and consolidate answer forms for questions based on the knowledge accumulated by knowledgeable persons, etc. regarding the system. The use of these technologies and knowledge may work as a substitute for or supplement human resources and reduce the burden of governments, etc.

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[6] The proposal for a forum for dialogue between stakeholders and government authorities in Chapter 5 (2) 3 (a) is based on this idea.

Chapter 2: Technology and Standardization

1. Problem statement

As organized in the Interim Report, when data users such as companies transfer data across borders to a third country, they are legally required to ensure the same level of protection/management system in the destination country as in the source country in many cases. However, while the protection level, safety, etc. are essentially a matter of legal interpretation, the protection/management system (governance) is largely dependent on the technical options for data utilization held by subjects such as companies. In the course of the survey process of the Interim Report, we received many requests from companies, etc. to clarify suitable specifications and standards for ensuring trust in technologies for storing and analyzing data and other data processing, i.e. levels of privacy, security, protection of intellectual property rights, etc. required by laws and regulations, along with standardizing and templatizing procedures to comply with systems for cross-border transfer.

This chapter presents issues related to cross-border transfer of data in technical domains extracted from case studies, and courses of action for solving the issues with technologies and standardization based on the analysis and evaluation of the issues.

2. Opinions of Experts

(1) Discussion topics

In this chapter, based on the information described in "1. Problem statement," the following two key points are considered.

[1] Current situation of data utilization (use of cloud computing, sophistication of data utilization, etc.)

[2] Technical solutions to comply with systems such as regulations in each country

(2) Viewpoints of discussion

First, we attempted to identify issues related to cross-border transfer of data from a technical perspective in order to provide a course of action for solving technical issues.

(a) Globalization of data life cycles in cloud environments

In considering issues related to cross-border transfer of data, it is necessary to clarify the life cycles of data (generation/acquisition, processing, transfer, disposal, etc.). The data life cycle has various patterns for each case of data utilization, but for data users whose business models, etc. include cross-border transfer of data, the data life cycle is generally envisioned across borders, and it is recognized as the core of the strategies of business, etc. to
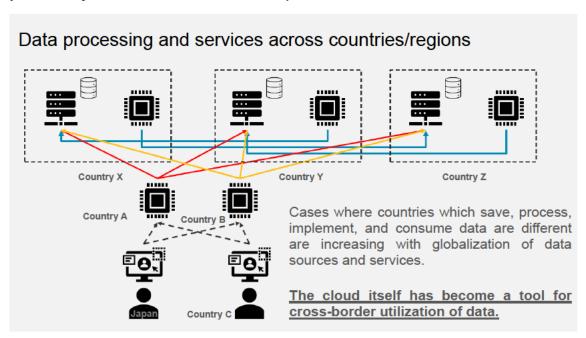
divide/organize data by stage and optimally allocate it based on the situation upon clarification.
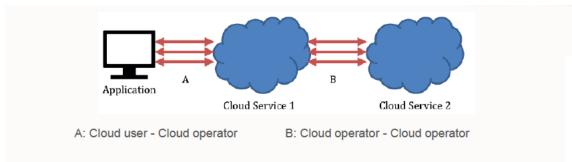
The nature of data utilization in the data life cycle is greatly influenced by the regulations introduced by each country and the technological options used by each user. Regarding the latter of these, the emergence of cloud services that are provided globally across borders is accelerating the trend of data life cycle expansion as a global-scale value chain. It should be noted that for companies using cloud services deployed globally, their geographic location and ways to deal with borders will be different from companies that use conventional technologies to expand their business across borders. Of course, for companies which provide services across borders, it is not rare for data to be stored, processed, and used for services across multiple countries. However, in the use of cloud services deployed globally, the storage location of data is not bound to specific geographical conditions of the cloud service provider, and users generally choose the location of the data center they use on their own, from the viewpoint of where data is collected and utilized and the cost.

Though it is not technically impossible to organize data life cycles by country/region, reconstructing cloud services already deployed globally according to the concept of borders has only limited economic rationality for both cloud service providers and user companies. On the other hand, it has been pointed out that when entities using data including companies try to comply with systems related to cross-border transfer of data in each country, they will inevitably have to comply with systems in multiple countries in the globally extended life cycles of data, and will have to allocate significant amount of costs and resources to that. For example, the laws and regulations for acquiring data in each country are different in terms of whether it is sufficient to just display or notify the terms of use on the web or whether it is necessary to obtain consent from the user, and whether the use of data for commercial purposes or for distribution or transmission to the public is permitted. Thus, as of now, the responses for compliance are yet to be organized for both cloud service providers and user companies.

However, in recent years, cloud service providers have started to present Sovereign Cloud, a new cloud deployment model, to ensure different data sovereignty in different countries. Sovereign Cloud provides a cloud service that meets legal requirements including compliance with data regulations. The establishment of Sovereign Cloud shifts the compliance costs of the differences in systems in cross-border transfer of data to the cloud service provider, reducing the burden of the user company to comply with regulations, etc.

Figure 5. Cross-border processing of data in a cloud environment (from materials provided by Members Tamaru and Suzuki)

- · The cloud environment assumes interoperability between A and B.
- · Both A and B are subject to cross-border transfer of data.
- · Store and Compute operations for data can be allocated to either CS1 or CS2.

(b) Prolongation and fluctuation of data life span

In addition to the life cycle of data, the life span of data should also be considered because data has a life for its utilization in addition to the life cycle. Though conventionally data utilization was roughly classified into consumption type (in which the role of data ends after analysis or visualization), with the increased use of AI and machine learning, etc., trained models and components implemented based on such models are now being distributed and turned into products and services. Therefore, as data utilization has become more sophisticated and complex, the data itself has come to create secondary and tertiary value over a long period.

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The prolongation and fluctuation of data life span, which has changed its form, was not assumed by various systems related to data utilization in the past, and may cause situations difficult to deal with through systems such as existing regulations. For example, issues are already beginning to surface related to the temporal range of consent regarding utilization of data containing personal information and the issues related to traceability and history management in ensuring data quality and safety.

Figure 6. Change in the value of data because of the sophistication and complication of data utilization (prepared by the Secretariat based on data provided by Member Tamaru)

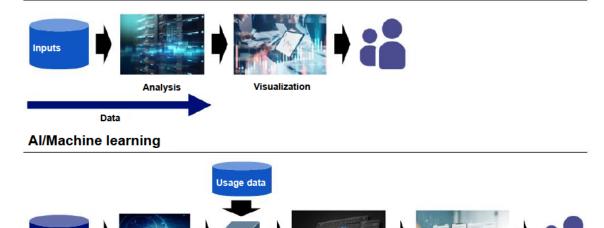(c) Possible future problem: Reality of rapid technological progress and changes in the system environment

As noted above, the utilization of data subject to regulations, etc. largely depends on the technological options used by each subject, and will continue to change with these technological innovations and business model transformations. Just as the advent of cloud services is relativizing the geographical ties that are the premise for "cross-border transfer," new technologies will continue to bring about new domains of activities that transcend the physical conditions assumed by existing regulations and other systems, and the assumptions that can be derived from human cognitive and physical capabilities. In this new reality, the

regulations that each country establishes must embody the norms that should be observed in each society, and activities in the new domains of activities must not undermine the values that these norms protect. The problem is that compliance with regulations and risk management are beginning to and expected to continue to become increasingly difficult due to various discrepancies including the discrepancy between the speed of updates assumed by traditional governance methods such as regulations and the speed of transformation in the digital economy and society, the knowledge and recognition gap between the technology community and the regulatory and policy communities, and the different systems in different countries.

(3) Results of the discussion

(a) Data jurisdiction issues across multiple countries in a cloud environment

In a cloud environment, it must be assumed that jurisdiction spans multiple countries for activities conducted in a cloud environment: for example, the cloud service itself is a cross-border data utilization tool, and data storage and processing are conducted in different countries due to the nature of that service. In other words, policy management must be organized based on not only applicable laws and regulations but also data classification and the impact level of each data category, considering the different jurisdictions related to data processing, data storage, and data transmission/reception. The categories for management of this policy (hereinafter called "data jurisdiction") include geographic units other than states as described below. It must also be noted that it is not only personal information included in the data referred to here and that the treatment varies depending on the type of data, for example, measurement data.

International discussions on how to classify geo-jurisdiction show that the unit of country is not the only geo-jurisdiction in the operation of cloud environments.[7] The most reasonable four categories in a cloud environment are municipal, state/provincial, national, and multi-jurisdictional, which consists of multiple states. Concerns can be pointed out about the nature of these geographic areas of data jurisdiction from various viewpoints that countries have raised in the past regarding data governance; especially the relationship with privacy and digital sovereignty may raise a number of issues.[8] Regarding privacy, it can be pointed out that there is no place to consider data governance in general for units across states in the

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[7] **ISO/IEC 22624:2020** Information technology — Cloud computing — Taxonomy based data handling for cloud services   https://www.iso.org/standard/73614.html?browse=tc

[8] It is an ambiguous concept and very difficult to define. It is considered to refer to the ability to make autonomous decisions regarding supply, utilization, and governance of digital technologies and their products (data, hardware, software, etc.). It encompasses concepts such as data sovereignty and technological sovereignty.

first place, and that there are differences in approaches to privacy. Digital sovereignty has been increasingly mentioned in digital strategies and similar policy documents in various countries in recent years, but exerting technological autonomy and territorial control over data is not equivalent to digital sovereignty. In regions that are at risk of natural disasters or politically unstable, it may be better to use cloud services outside of jurisdiction.

Therefore, the data jurisdiction problem is a domain where many options, objectives, and constraints are related to each other in a complex manner, which makes it difficult to find an all-in-one solution.

(b) Management of data history, etc.

As mentioned above, the history of data collected by companies in an environment where they did not have to comply with regulations in the past is not managed, so there are cases where the conditions for use of data are not clear. In addition, in research and development fields, data is often managed by individuals, which makes history management more difficult. Continuing with such use of data creates significant compliance risks. In some cases, consent had to be obtained again for secondary and tertiary data that contains personal information because the scope of consent obtained in the past was not clear.

Therefore, it is necessary to develop and implement a system and technical solution to manage and clarify, for example, the scope of acquisition of consent in personal information, etc. and the history of data in general on a dataset basis.

(c) Possible future problem: Reality of rapid technological progress and changes in the system environment

Regarding compliance with regulations on cross-border transfer, it is first necessary to clarify suitable specifications and standards for levels of privacy, security, protection of intellectual property rights, etc. required by laws and regulations, or standardization and templatization of procedures to comply with systems for cross-border transfer.

However, to solve the above-mentioned problems, we must also seek to transform the system environment in order to lower compliance costs and maximize the value that is realized by technological innovation and achieved regulation targets, utilizing "technological solutions (e.g., sovereign cloud) to help stakeholders (including regulatory authorities) in strictly regulated business domains set, execute, and fulfill their compliance and risk management obligations." Many options for technological solutions to transform the system environment itself are likely to emerge in the future. For example, one option is to use privacy-enhancing technologies (PETs) to standardize procedures for compliance with regulations on cross-border transfer of data and Reg Tech as a means to transform the system

environment into a more agile one.

3. Solutions of the Expert Group (conclusion)

(1) Response to data jurisdiction issues in cloud environments

As described in "3. Solutions of the Expert Group (1)" in Chapter 1, with a plane view on which the systems related to cross-border transfer of data in each country are properly mapped to clarify their characteristics, transparency of the systems will be improved and it can be expected that compliance costs for companies will be reduced.

To map the systems, one of the first assumptions is to conduct elemental analysis with reference to the international standard on "Interoperability and Portability in Cloud Computing" (ISO/IEC19941:2017). First, five interoperability aspects (facets) are specified (transport, syntactic, semantic data, behavior, and policy), which are also used in domains such as the IoT, AI, big data, blockchain, and cross-border transfer. By classifying these aspects, it is assumed that, for example, when one country establishes a system of privacy in medical information, other countries and companies will be able to make judgments such as "This system is a privacy system for national policies on semantic data." It is also worth considering that each of the interoperability aspects can be subdivided. On the other hand, the data life cycle can be divided into nine stages (acquisition, transmission, storage, preparation, use, exchange, sharing, archive, and deletion), so it is necessary to consider each of the above interoperability aspects. ISO/IEC 5723:2022 specifies that *trustworthiness* of information processing (*trustworthiness*) consists of 15 characteristics including security and privacy. In addition, ISO/IEC 17788:2014, an international standard on the summary and terms of cloud computing, specifies 13 cross-section characteristics, so elements to be considered in DFFT can be covered by combinations of common characteristics (13) cross-sectionally required in each stage of the data life cycle (9) × each aspect of interoperability (5) × each characteristic of reliability of information processing (15) × each common property cross-sectionally required in a cloud environment (13). This will enable detailed mapping of the systems for cross-border transfer of data in each country and provide a roadmap for ensuring the transparency of each country's systems.

Figure 7. Matters to consider in DFFT (in a cloud environment) (from the material provided by Member Suzuki)

Consideration targets	Consideration items
Data life cycle 9 stages	acquisition, transmission, storage, preparation, use, exchange, sharing, archive, deletion
Interoperability 5 facets	**ISO/IEC 19941:2017 Interoperability and portability** Policy interoperability, Transport interoperability, Syntactic interoperability, Semantic data interoperability, Behavioural interoperability,
Trustworthiness 15 characteristics	**ISO/IEC TS 5723:2022 Trustworthiness — Vocabulary** accountability, accuracy, authenticity, availability, controllability, integrity, privacy, quality, reliability, resilience, robustness, safety, security, transparency, usability
Cloud computing 13 cross-cutting aspects	**ISO/IEC 17788:2014 Cloud computing - Overview and vocabulary** auditability, governance, interoperability, maintenance, performance, portability, regulatory/compliance, reversibility, service level, accessibility, recovery, business continuity, disaster recovery

(2) Response to enhance data history management through standardization

Longer data life span means a longer period of accountability for companies regarding their data. It is necessary to address this current situation by improving data traceability, promoting standardization, and enhancing data history management. History management is specifically mentioned in ISO/IEC 19944, etc., and it is important to think about it first.[9]

(a) Addition of attribute information

Data traceability may be improved by adding attribute information to data. Specifically, by extending the JavaScript Object Notation (JSON) and Comma Separated Values (CSV) schemas, history information such as the data creator and editor can be added as attribute information, and similar functions can be incorporated into the data-sharing infrastructure. There is also a response to add tags indicating the location of the host and the country to which the data belongs, by extending the HTML standard.

(b) Extension of HTML tags and document formats

While utilization including collecting data is becoming more and more active on the Internet, standardization by extending HTML tags and document formats is a possible response to the

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[9] **ISO/IEC 19944-1:2020** Cloud computing and distributed platforms — Data flow, data categories and data use — Part 1: Fundamentals and **ISO/IEC 19944-2:2022** Cloud computing and distributed platforms — Data flow, data categories and data use — Part 2: Guidance on application and extensibility

situation where there is no agreed method to identify "terms of use." If the terms of use can be expressed as data, it can support appropriate data distribution and data utilization and also address the override issue. Note that Article 4-3 of the Directive on Copyright in the Digital Single Market (DSM Directive) stipulates that an opt-out be made "in an appropriate manner that is readable by machine provided that its use is not expressly withheld," and this is based on the view that a standardized format should be used for opt-out.

(c) Natural language data

Standardization of natural language data is also a possible response. For example, the Plain Language of the U.S. is the standardization of a writing method of sentences and how words are used in sentences. This kind of standardization is also proceeding in the EU and other countries. Plain language is extremely accurate for interpretation in natural language processing (machine learning and AI) because words themselves are standardized. Famous shared language resources include the Linguistic Data Consortium (LDC) and Translation Automation User Society (TAUS), and there are stakeholders in Japan such as the Language Resources Association and the Japan Science and Technology Agency. However, language resources are unevenly distributed; for example, Japanese language resources are currently much smaller than English or Chinese ones. To standardize natural languages in the future, we must consider enhancing language resources.

(3) Reality of rapid technological progress and responses to changes in the system environment

As we outlined, proper governance is no longer possible with the government simply enforcing laws and regulations through traditional means. Streamlining compliance via technologies, etc. and specifically implementing agile government are assumed in response to changes in the system environment such as the globalization of the data life cycle value chain, the characteristics of data different from goods and services, and the influence of technological innovation and business models in the network cloud environment. [10] Examples of such technology utilization include the introduction of PETs and Reg Tech.

The aim of PETs is to eliminate the privacy risks pointed out with data-sharing. The following

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[10] Model in which various stakeholders such as governments, companies, individuals, and communities continuously analyze their own social circumstances, set goals, design various governance systems such as systems, laws and regulations, markets, and infrastructures to realize the goals, and continuously evaluate and improve the results based on dialogue. "GOVERNANCE INNOVATION Ver.2" of the Ministry of Economy, Trade and Industry presents agile governance as the governance model to be achieved in the future society "Society5.0," which is advocated by Japan.

shows representative examples of technologies.

[1] Differential privacy

Deletion of personally identifiable data or the addition of noise to processes (input, calculation itself, or output) in order to enhance anonymization. It makes it possible to extract meaningful insights while protecting personal data.

[2] Federated analysis

Method of executing analyses individually on different data sets and sharing the insights obtained from such analyses across the data sets. Various problems (data breach risk, etc.) caused by combining and analyzing data in a single database can be solved.

[3] Homomorphic encryption

Type of secure computing. Makes it possible to analyze data without reading information itself by encrypting data when requesting a third party to analyze data. It can address issues such as misuse of data during data linkage and can be used to protect confidential data.

[4] Zero-knowledge proofs

Enable one party to prove certain information to another party without sharing anything other than the intended information. Effective when users who will share information cannot trust that the other party will not use the information for purposes other than intended.

[5] Secure multiparty computation

Technology that can protect the privacy of individuals even when sharing information with unreliable third parties, as with homomorphic encryption and zero-knowledge proof. It makes it possible to analyze personal data owned by several other institutions without revealing input.

Utilization of a new set of technologies called PETs makes it possible to share data while protecting customer privacy. PETs are actively used, for example, in the financial field.[11]
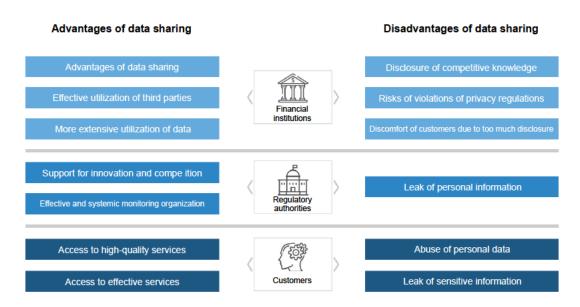
- [Case1] Income verification: For example, utilization of zero-knowledge proof makes it possible to prove that the income exceeds a specified condition without revealing the specific amount of income. It also makes it possible to prove that someone is older than

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[11] PETs are being applied to a wide range of fields other than the financial field, such as medicine, health, and communication, but this report mentions finance as an example because it refers to World Economic Forum "The Next Generation of Data-Sharing in Financial Services: Using Privacy Enhancing Techniques to Unlock New Value"

the specified age without revealing his/her age. In other words, it is expected to be able to verify proof of income and age quickly and securely at low cost.

- [Case2] Industry-wide financial risk analysis: The risk exposure of a financial institution can be analyzed using secure multi-party calculations that preserve the confidentiality of individuals without revealing its strategy to competitors.

- [Case3] Duplicate detection of automobile insurance: If a customer has purchased insurance policies with the same contents from multiple insurance companies, double receipt may be prohibited under the contract. However, information about accidents and customers is sensitive data related to privacy, and in some cases, it is also a trade secret. Therefore, using differential privacy, federated analysis, and the use of zero-knowledge proof, analysis is performed across the data sets of multiple companies to detect duplicate (fraudulent) claims. This enables insurance companies to reduce duplicate claims while protecting customer privacy and business confidentiality.

Figure 8. Advantages and disadvantages of utilizing PETs in the financial domain (from the PETs White Paper)

Advantages of data sharing		Disadvantages of data sharing
Advantages of data sharing		Disclosure of competitive knowledge
Effective utilization of third parties	Financial institutions	Risks of violations of privacy regulations
More extensive utilization of data		Discomfort of customers due to too much disclosure
Support for innovation and compe ition	Regulatory authorities	Leak of personal information
Effective and systemic monitoring organization		
Access to high-quality services	Customers	Abuse of personal data
Access to effective services		Leak of sensitive information

It is difficult to harmonize different data protection systems of different countries in a short period, but it may be possible to standardize/ templatize procedures to comply with regulations by using PETs in coordination with the initiatives to encourage research and development investments, private-public partnerships, and understanding of the systems of the countries where customers are located, and respond to adjacent issues (low quality of the existing data sets, obsolescence of legacy technologies, fragmented data architectures, lack of interoperability, different rules among different jurisdictions, etc.).

PETs is a set of technologies designed to realize privacy protection and data use at the same time, mainly focusing on personal data. On the other hand, for data which contains non-personal data such as industrial data, the implementation of RegTech can be considered.

Reg Tech also assists in shifting from a static system to a dynamic one. Assuming that AI and other applications can be used to improve compliance, for example, if we can advance the machine-readability of domestic regulations (although the methodology of encoding legal issues in a mathematical form remains to be discussed), it may also be possible to promote an agile system environment, such as mechanically changing guidelines for fulfilment along with real-time information on technological innovation, market changes, and new court precedents.

The following shows a roadmap for the introduction of Reg Tech.

[1] Find the point of entry

An approach is necessary for each of the platform, user, and technological solution.

[2] Find an appropriate domain

Potential domains with high applicability of Reg Tech include those where there are many different regulations and standards, new standards are formulated/applied, there is a costly compliance check process, or there is uncertainty associated with frequent changes in regulations/standards.

[3] Select suitable technological solutions for the issues

In order to identify the best technological solutions, it is necessary to find out the Problem statement in the regulatory process, the nature of those problems, processes which can be improved, etc.

[4] Try Reg Tech

Ensure that is compatible with the common success factors.

[5] Prioritize

Consider carefully whether Reg Tech is the best solution when comprehensively considering various factors including cost, capacity, technical complexity, and legal constraints.

If implemented, Reg Tech is expected to reduce compliance costs while improving compliance with regulations and effectiveness of governance for cross-border transfer of data. However, before proceeding to the domestic implementation stage, it is essential to clarify the appropriate verification and consensus-building processes related to the introduction of the system and the roadmap not to interfere with the management of the existing systems.[12]

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[12] As a case of utilizing Reg Tech in Japan, the Working Team on Digitalization of Legislative Affairs is considering identifying and reviewing regulations that use "analog regulatory methods (visual regulations, field audits, periodic inspections, document display, full-time, face-to-face training, and visit check)" from over 40,000 existing laws. A technology map is to be developed to promote the digitalization of regulations using consumer technologies, and a batch review will be conducted within two years to categorize several thousands of regulations according to the map.

Chapter 3: Interoperability

1. Problem statement

As we concluded in the Interim Report, it is important to establish and propose an interoperable mechanism among countries that share basic values regarding cross-border transfer of data, considering regulatory requirements such as privacy, security, and protection of intellectual property rights, in order to realize DFFT.

Also, as already described in Chapter 2, data governance by companies is influenced by both compliance with regulations in each country and technological options that enable global extension of the data life cycle. However, there are many issues in ensuring "interoperability" in cross-border transfer of data, such as differences in regulations among countries and differences in recognition of and response to the discrepancy between the governance methods assumed in the existing regulations and the reality of globalized data utilization and cross-border transfer.

Based on this recognition, the Expert Group needs to investigate and consider policy options to ensure interoperability from various perspectives including the utilization of technologies and the necessity for standardization, provided that each country has different systems for cross-border transfer of data. Chapter 3 of this report focuses on the utilization of technologies. Other means of ensuring interoperability include mutual recognition of certifications such as Cross-Border Privacy Rules (CBPR), certification of the sufficiency of personal information protection laws (and Binding Corporate Rules (BCR) and Standard Contractual Clauses (SCCs) tied to the legal system), or the arrangement of international laws on intellectual property rights, etc., and discussion through existing bilateral and multilateral inter-government channels is ongoing.

2. Opinions of Experts

(1) Discussion topics

Consider the interoperability that can be ensured mainly using technologies, especially PETs and Reg Tech mentioned in Chapter 2.

(2) Viewpoints of discussion

To solve issues related to cross-border transfer of data, we will analyze the condition of utilization of PETs in the financial industry to address privacy risks associated with data-sharing and common success factors of case studies related to Reg Tech, and examine elements that contribute to ensuring interoperability.

(3) Results of the discussion

(a) Utilization of PETs

As mentioned in Chapter 2, a set of technologies referred to as PETs can help eliminate privacy risks associated with data-sharing. For example, introducing PETs as a method to standardize and formulate procedures for compliance with regulations on cross-border transfer is expected to mechanically and automatically ensure interoperability in transferring data between different systems, or significantly reduce costs.

- [Case1] Open banking: In open banking, which uses API to link financial data, the issue is trust between financial institutions, partner companies (e.g., IT companies which develop household account applications), and users. Therefore, by introducing multiparty calculation, it is possible to guarantee that the data to be linked (e.g., deposit and withdrawal data from a bank account) is used only for the intended purpose and to form trust between the three parties.
- [Case2] Standardization of customer identification registration: In retail banking operations, various confirmation tasks are conducted when an account is opened with regards to Anti-Money Laundering (AML), etc. including the Customer Identification Program. However, many users have multiple accounts, and the industry as a whole is experiencing duplicate work. Until now, data linkage has been considered difficult because it involves the provision of personal information and there is a sense of resistance to sharing customer information with competitor banks. However, the use of zero-knowledge proof enables customer identification via common utilities in a manner that dispels the above-mentioned concerns. From the customer's perspective, it is sufficient to sign up to the common utility once and upload data (address, identification certificate, etc.). By doing so, it is expected that the data will be easier to keep up-to-date, which will support continuous AML monitoring.

(b) Utilization of Reg Tech

Data-related regulations have high applicability of Reg Tech; application of PETs and construction of registries, libraries, etc. are expected. In doing so, it is necessary to adopt agile governance and introduce novel and iterative progressive ways of thinking. However, before proceeding to the domestic implementation stage, it is essential to clarify the appropriate verification and consensus-building processes related to the introduction of the system and the roadmap so as not to interfere with the management of the existing systems.

Reg Tech's common success factors can be broadly divided into [1] through [3] below.[13]

[1] Engagement
- Public-private partnerships 2.0 (PPP 2.0): RegTech requires an active evolution of more traditional collaboration models. It requires designing with partners rather than for them, and, in doing so, creating more confidence in the market as a result of such partnerships. The key is for non-public sector partners, both businesses and people sector organizations (where relevant), to be active players in the work, and not merely passive recipients of public sector decisions.
- Stakeholder capitalism-led: To ensure equity and shared responsibility across stakeholders and regulators from top to bottom, RegTech design and implementation needs to be grounded in stakeholder capitalism principles – creating long-term value for all those involved. It is particularly key to secure buy-in from stakeholders for regulatory principles that may be evolutionary rather than permanent, so that they can support and ensure effective operationalisation of these principles even as they change with the times.
- Champion-driven trust: Building comfort with RegTech applications can be difficult, especially when the general public is involved. There is a need for clear communication to reduce information asymmetries and generate buy-in to a new system. Including trusted "champions" – such as public officials, senior private leaders or community activists, who can communicate RegTech in ways that are accessible to a wide range of demographics – can be an effective means of driving adoption at scale.

[2] Design
- Radical user centricity: Approaching regulation, enforcement and user adoption through the experience of traditionally-product and service centred design thinking, including standard semantics and reference points that enable streamlined processes and global policy coordination. The focus should be on minimizing pain points and enhancing user experiences, not just on what is efficient or possible from a supply perspective. Here, the parallels with agile practices in software development are particularly apt, as the radical shift emerged when solving users' problems was prioritized over comprehensive vision.
- Regulation for risk, safety and mitigation: Transition from the "regulate-and-forget" to

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[13] World Economic Forum "Regulatory Technology for the 21st Century," pp. 13-15., https://www3.weforum.org/docs/WEF_Regulatory_Tech_for_the_21st_Century_2022.pdf

the "adapt-and-learn" era of regulation to tap into the broader innovation and creativity space and not solely focused on safety guardrails. This is particularly critical for the emergent phenomena handled by RegTech, where existing templates, standards, benchmarks and ostensible "best practice" are no longer applicable.

➢ Dynamic: A regulatory approach that nurtures experimentation, iteration and prototyping via regulatory sandboxes and other mechanisms creates an environment that can better support RegTech integration. Examples of this are seen in Singapore and UK Financial Conduct Authority and Arizona fintech sandboxes. However, dynamic does not mean erratic. It is important that regulatory updates are consistent, so as to not undermine the ability for business to make long-term decisions. The best RegTech balances between the openness for iterative experiments, and sufficient structure for reasonably predictable outcomes.

[3] Application

➢ Human and machine intelligence: Balancing qualitative (human) and quantitative (machine) insights will lead to policy decisions informed by multiple and varied data sets and create more predictive mechanisms to ensure that policy-making stays in front of cultural change. Increased investments in AI, analytics and general digitization (e.g. hybrid cloud adoption to drive process automation) will help create a preferable future with a more frictionless path for implementing RegTech compliance solutions. These investments should include sufficient space for the underlying algorithms themselves to evolve in order to accommodate dynamic technological shifts.

3. Solutions of the Expert Group (conclusion)

Transforming the system environment itself by implementing PETs and Reg Tech may contribute to ensuring interoperability. On the other hand, there is also interoperability led by improved transparency, which was discussed in Chapter 1. Since a multifaceted approach is assumed for ensuring interoperability, the following shows examples of measures to ensure interoperability, classified into two categories, "Domains handled by the government" and "Domains handled by the private sector," assuming that each country has different domestic systems for cross-border transfer of data.

(1) Domains handled by the government

[1] Use an existing forum or establish a new one for collecting and consolidating information on and discussing cross-border transfer of data. Establish a mechanism to enable stakeholders such as companies and representatives of civil society to participate in the

forum. (See Chapters 1 and 5.)

[2] By developing and promoting the Regulatory Sandbox and Digital Sandbox systems, the government will arrange an environment that promotes the utilization of technologies such as PETs, identify technologies that will become standards to comply with regulations in multiple countries, and support the development of such technologies. (Related to engagement and design in Reg Tech's common success factors.)

[3] The government will support initiatives to clarify the common definition of data and the structure to ensure interoperability to form a common understanding of data shared across borders. (Related to design in Reg Tech's common success factors.)

[4] Promote the development of technologies that contribute to ensuring interoperability by holding Tech sprints contests, etc. (Related to design in Reg Tech's common success factors.)

(2) Domains handled by the private sector

[1] Stakeholders will participate in the forum to collect and consolidate information and discuss cross-border transfer of data, and provide advice, etc. to governments to promote public-private partnership. (See Chapter 1.)

[2] Provide information to governments, etc. on the latest trends in technologies and standards, and support identification of technologies that will become standards. (Related to engagement in Reg Tech's common success factors.)

[3] Research and develop technologies and provide services related to Reg Tech, and help to create an environment where the utilization of certain systems also automatically ensures legal compliance. (Related to applications in Reg Tech's common success factors.)

Chapter 4: Complementarity with Related Systems

1. Problem statement

As we concluded in the Interim Report, from the viewpoint of proposing policies and systems in international forums such as the G7 for realizing DFFT, it is necessary to proceed with consideration in a mutually complementary and harmonized manner between the initiatives, based on the existing trade rules and general principles (such as the G7 digital trade principles) related to free flow of data and handling of data with protection of privacy, security, intellectual property rights, etc.

To design and explain the DFFT proposal, it is necessary to map existing international systems and clarify their relationships with the DFFT proposal. The mapping is also important to analyze the feasibility of the DFFT proposal.

Therefore, we mapped public international systems (regimes in which governments and public institutions participate) involved in cross-border transfer of data, analyzed their contents, and examined the complementarity of the DFFT proposal of the Expert Group with the existing institutions.

2. Opinions of Experts

(1) Discussion topics

Mapping of the existing international systems for cross-border transfer of data was conducted in a total of nine categories roughly divided into [1] number of parties (three categories) and [2] form of discipline (three categories).

The number of parties [1] was classified into three categories according to the general international law categories: bilateral, multilateral (three or more countries), and (quasi-)universal (the majority of countries are parties).

As for the form of discipline [2], while based on the two categories of hard laws (treaties, etc.), legally binding rules, and soft laws (gentleman's agreements, resolutions and declarations, policy guidelines, etc.) as rules that are not legally binding, in international law, which have no enforceable mechanism, the hard law was further divided into two considering the gradation in terms of the enforceability of rules depending on the presence of dispute settlement procedures and procedures to ensure compliance, etc.; hence the three categories.

While [1] and [2] above are general indicators for mapping international systems such as treaties, the nature of the agreements, particularly the distinction between economic and non-economic agreements, is important in considering complementarity. Economic

agreements refer to ones that promote liberalization and facilitation of trade and investments, including WTO agreements and Preferential Trade Arrangements (PTAs) such as CPTPP, Japan-EU EPA. On the other hand, non-economic agreements mean ones other than economic agreements, but here they refer to international systems for the protection of privacy and personal data, such as the OECD Guidelines and the European Convention No. 108. For economic agreements, there is a concern that economic interests such as trade and investment liberalization will be prioritized over non-economic interests such as the protection of personal information in their negotiation and management. Though it requires separate consideration whether such a concern is reasonable, considering the actual existence of such concern, it is important to analyze the contents of such agreements with distinction of the nature of the agreements and consider complementarity with the DFFT proposal,.

Figure 9. Mapping of existing international systems for cross-border transfer of data (from the material provided by Member Prof. Kitamura)

	Bilateral	Multilateral	Quasi-universal
Soft		OECD Privacy Guidelines 1980 (Amended in 2013) APEC Privacy Framework 2004 (Amended in 2015; CBPR2011) ASEAN PDP Framework 2016 (ASEAN DGD Framework 2018)	
Hard (without any dispute settlement procedure or procedure to ensure compliance)		Malabo Convention 2014* [No rule on regulations of cross-border transfer of data]	

Hard (with a dispute settlement procedure and procedure to ensure compliance)	Japan-EU EPA 2018[14] Japan-U.S. DTA 2019 Japan-UK EPA 2020 EU-NZ FTA 2022 UK-Australia FTA	European Convention No. 108 1981 (Additional Protocol 2013; Amended Protocol 2018*) CPTPP 2018 USMCA 2018 RCEP 2020 DEPA 2020	WTO Agreement 1994

* Means that the document is yet to enter into effect

Black and red characters indicate economic and non-economic agreements, respectively.

(2) Viewpoints of discussion

For the international systems mapped in (1) above, we analyzed the specific regulations related to cross-border transfer of data, dividing them into substantive and procedural (transparency-related) regulations.

(a) Substantive regulations

For substantive regulations, we categorized the regulatory approaches in each international system into three types, and analyzed each using their strength and level.

In other words, approaches to regulations in the personal information protection, cyber security, intellectual property rights, etc. are roughly divided into [1] positive integration (forming and applying common policies among states), [2] negative integration (removing barriers to economic activities while assuming differences in regulations among states), and [3] mutual recognition, whose nature is intermediate between [1] and [2]; these are often used in combination in the same international system.

The strength of regulation refers to whether the parties' commitment is hard or soft (obligation or reasonable effort, availability of dispute settlement procedures for such regulations, etc.); the level of regulation refers to the level of protection of personal information in the case of positive integration and the level of barrier removal in the case of negative integration.

Regulations for barrier removal often take the form of the review of the regulatory purpose (e.g., protection of personal information) and the regulatory means (e.g., regulations of cross-

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[14] Japan-EU EPA contains no substantive provisions on cross-border transfer of data but a provision to obligate both contracting countries to re-evaluate the necessity for including a provision on free flow of data in this agreement within three years from the effective date of this agreement (Article 8/81 Free Flow of Data).

border transfer of data), with different levels of standards including the relational test (reviewing whether there is a rational relationship between the purpose and the means), the necessity test (reviewing, in addition to relevance, whether there are less restrictive alternative means to achieve the purpose), and the proportionality test (reviewing, in addition to necessity, whether the means balance the purpose in light of the importance of the purpose). Regarding necessity test, some international systems allow restrictions necessary to achieve the purpose, while stipulating the regulating countries themselves can determine the necessity of such restrictions. There are several interpretations of these stipulations, including the view that they are not subject to any review, and the view that, based on principle of good faith, an explanation or proof that the relationship between purpose and means is not extremely unreasonable is required.

(b) Procedural regulations

Procedural regulations on transparency in each international system can be divided into [1] regulations on the availability of information on laws and regulations, etc. (publication, notification, response to requests, establishment of an inquiry office, etc.) and [2] regulations on ensuring fairness in the implementation of laws and regulations, etc. (statement of opinion procedure, review or appeal opportunities, etc.).

The Expert Group analyzed each regulation in terms of the scope of the regulations (e.g., whether, as for the availability of information on laws and regulations, etc., the regulation requires only publication or also requires notification, response to requests, establishment of contact points, etc.) and the density of the regulations (e.g., whether, for the publication of laws and regulations, etc., the timing, medium, contents, etc. are specified in detail).

In the following, we will analyze the contents of the regulations of each international system (WTO Agreement, non-economic agreement, and PTAs) mapped in (1) from the above-mentioned viewpoint.

(3) Results of the discussion

(a) WTO Agreement (quasi-universal and hard law)

There is no provision directly governing cross-border transfer of data in the WTO Agreement. However, as with other domestic regulations, restrictions of cross-border transfer of data may lead to a violation of most-favored-nation treatment provisions (Article 1 of General Agreement on Tariffs and Trade (GATT) and Article 2 of General Agreement on Trade in Services (GATS)), national treatment provisions (Article 3 of GATT and Article 17 of GATS), etc., if they cause discrimination between domestic and foreign goods or services, or

between foreign goods or services. On the other hand, GATT and GATS allow implementation of measures "necessary" for protecting public morals and ensuring legal compliance, which does not violate GATT or GATS, as exceptions of these obligations ((a) and (d) of Article 20 of GATT and (a) and (c) of Article 14 of GATS); restrictions of cross-border transfer of data for the protection of personal information may also be justified by these exception provisions. Therefore, the WTO Agreement imposes regulations on regulations of cross-border transfer of data in the form of negative integration based on a certain level of a necessity test.

Procedural regulations (transparency-related regulations) also exist in the WTO Agreement. Under GATT, Article 10 obligates the publication of laws and regulations, etc. (Article 10.1) and their fair and reasonable enforcement (Article10.2). However, the scope and density of these provisions are limited. On the contrary, GATS has introduced more advanced procedural regulations: Article 3 obligates notification to the trade in services council, response to requests for provision of information from other member countries, and the establishment of an inquiry office as well as the publication of laws and regulations, etc. In addition to fair and reasonable enforcement of laws and regulations, etc., Article 6 also stipulates the introduction of review and appeal procedures. The difference in the timing of formulation between GATT (1947) and GATS (1994) is reflected while these regulations are more advanced, taking into account the characteristics of the service fields with more complex domes4tic regulations; they impose a wide range of medium-density regulations on transparency.

However, the WTO Agreement has limitations and problems, such as the fact that Articles 17 and 6 of GATS are only applicable to the service modes subject to liberalization commitment, and that it is unclear whether GATT or GATS regulations are applicable due to the classification problem that the import and export of, for example, fitness trackers are goods trade or service trade.

(b)   Non-economic agreement (multilateral, soft law/hard law)

As for non-economic agreements, we analyzed the OECD Privacy Guidelines, the APEC Privacy Framework, and the European Convention No. 108 (2018). A summary of the agreements is shown in Figure 10, but as for substantive regulations, all of the agreements adopt a positive integration approach while establishing basic principles for the protection of privacy and personal information and stipulating that restrictions of cross-border transfer be avoided or prohibited for countries that comply with these principles. On the other hand, these agreements also stipulate, for example, regulations that transfer restrictions be avoided for sufficiently protected countries and that transfer restrictions be proportionate to risks, and

they also use an intermediate approach ("recognition") and a negative integration approach. On the other hand, as for procedural regulations, there are regulations on information sharing among member countries and their authorities, but they do not obligate publication of measures, etc. as in the WTO Agreement, so it is considered to focus on support for enforcement of privacy or data protection laws instead of improvement in transparency for economic subjects and reduction of costs for compliance of such laws in each country through such improvement.

Figure 10. Analysis results of representative non-economic agreements (from the material provided by Member Prof. Kitamura)

Agreement	Substantive regulations			Procedural regulation (transparency?)	
	Positive Integration	Recognition	Negative integration	Availability of information	Ensuring fairness of implementation
OECD Guidelines 2013	· Application of the basic principles (7-14) + Avoidance of restrictions of cross-border transfer to compliant countries (17) → Strength: Soft, Level: Medium	· Avoidance of restrictions of cross-border transfer to sufficiently protected countries (17) → Strength: Soft, Range: Wide	· Restriction proportionate to risks (18) → Strength: Soft, Level: High	· Information sharing among privacy enforcement institutions (20) → Range: Wide, Density: Low	· Preparation for decision based on objective, fair and consistent standards (19c) → Range: Narrow, Density: Low
APEC Framework 2015	· Application of the basic principles (20-32) + Avoidance of restrictions of cross-border transfer to	· Avoidance of restrictions of cross-border transfer to sufficiently protected countries (69)	· Restriction proportionate to risks (70) → Strength: Soft, Level: High	· Sharing of information among member countries (57-61) → Range: Wide,	· Preparation for decision based on objective, fair and consistent standards (41) → Range: Narrow, Density: Low

	compliant countries (69) → Strength: Soft, Level: Medium	・Certification of conformity of operators to the basic principles (CBPR system) → Strength: Soft, Range: Wide		Density: Low	
European Convention No.108 2018	・Domestic application of the basic principles (4-13) + Prohibition of restrictions of cross-border transfer to contracting countries (14.1) → Strength: Hard, Level: Medium		・True and serious danger of circumvention of articles of the agreement (14.1) → Strength: Hard, Level: High	・Sharing of information among supervisory authorities (17.1) → Range: Wide, Density: Low	・Possibility of review procedures (16.9) → Range: Narrow, Density: Low

(c) PTAs (bilateral/multilateral, hard law)

The main types of PTAs regulations on the cross-border transfer of data include the US/Singapore, Australia, Canada, TPP, and the EU types. Especially in recent years, even with some differences in the strength of regulation, focusing on the degree of negative integration and the level of recommendation for recognition, etc., there is a trend to converge into a form that sets the obligation not to interfere with cross-border transfer while imposing restrictions necessary to achieve legitimate purposes like CPTPP (moderate negative integration and recommendation for recognition) and a form that allows countries to determine appropriate measures for the protection of personal information and privacy and legitimate public policies (low negative integration) like EU-NZ FTA and RCEP. The same trend is observed in the position of member countries in JSI e-commerce negotiations at the WTO.

For substantive regulations, CPTPP, etc. stipulate the obligation not to interfere with cross-border transfer but provide exceptions that allow measures "necessary" to achieve legitimate purposes, while EU-NZ FTA and RCEP stipulate that it is the regulating country itself that determines the necessity for these exceptions. On the other hand, many of these PTAs stipulate that a legal framework for the protection of personal information should be adopted and maintained considering the OECD Basic Principles, etc., and PTAs such as CPTPP use positive integration approaches and intermediate approaches (recognition) in combination, for example, provisions recommending recognition of results and equivalence of regulations. The above classification of regulations on cross-border transfer of data into CPTPP, etc. centered on the U.S., Singapore, etc., and EU-NZ FTA and RCEP centered on the EU, etc. is also suggested by cluster analysis using text analysis in previous studies (see Figure 11 below).

As for procedural regulations, many recent PTAs have general provisions on transparency similar to Articles 3 and 6 of GATS of the WTO Agreement. Some of these PTAs also have special provisions for the protection of personal information and impose more extensive and detailed regulations, such as obligation of the publication of information on how individuals can access a remedy and how companies can comply with regulations.

Figure 10. Analysis results of representative PTAs (from the material provided by Member Kitamura)

PTAs	Substantive regulations			Procedural regulations (transparency)	
	Positive Integration	Recognition	Negative integration	Availability of information	Ensuring fairness of implementation
CPTPP 2018	・Adopt and maintain a legal framework for protection considering the principles and guidelines of relevant international systems (14.8(2)) → Strength: Soft, Level: Medium	・Recognition of results of regulations (14.8(5)) → Strength: Soft, Range: Narrow	・Obligation not to interfere with cross-border transfer (14.11(2)) + Permission for restrictions necessary to achieve a legitimate purpose (14.11(3)) → Strength: Hard, Level: Medium	・Publication of relief and compliance methods (14.8(4)) ・Publication of laws and regulations, etc., notification, response to requests, establishment of an inquiry office (26.2/5) → Range: Wide, Density: High	・Statement of opinion procedures and review/appeal procedures (26.3/4) → Range: Wide, Density: High
Japan-EU EPA 2018			・Reassessment of the necessity to include cross-border transfer provisions within three years from entry into force (8.81)	・Publication of laws and regulations, etc., response to requests, and establishment of a mechanism for response (17.3/4) → Range: Medium, Density: Slightly high	・Statement of opinion procedures and review/appeal procedures (17.5/6) → Range: Wide, Density: High

RCEP[15] 2020	・Adopt and maintain a legal framework for protection considering the standards of relevant international institutions, etc. (12.8(1)(2)) → Strength: Soft, Level: Medium		・Obligation not to interfere with cross-border transfer (12.15(2)) + Permission for restrictions necessary to achieve a legitimate purpose (the necessity is decided by each country) (12.15(3))) → Strength: Hard, Level: Low	・Publication of relief and compliance methods (12.8(3)) ・Publication of laws and regulations, etc., notification, and response to requests (17.4) → Range: Wide, Density: Medium	・Statement of opinion procedures and review/appeal procedures (17.6) → Range: Wide, Density: Medium
DEPA 2020	・Adopt and maintain a legal framework for protection considering the principles and guidelines of relevant international systems (4.2(2)) ・Approve the OECD Basic Principles as the foundation for a robust legal framework for	・Recognition of results and equivalence of regulations (4.6) → Strength: Medium, Range: Wide	・Obligation not to interfere with cross-border transfer (confirmation of the existing obligations based on the agreement of CPTPP) (14.11(2)) + Permission for restrictions necessary to achieve a legitimate	・Publication of relief and compliance methods (4.6) ・Publication of laws and regulations, etc., notification, response to requests, establishment of an inquiry office (13.2/5) → Range: Medium, Density: Slightly	・Statement of opinion procedures and review/appeal procedures (13.3/4) → Range: Wide, Density: High

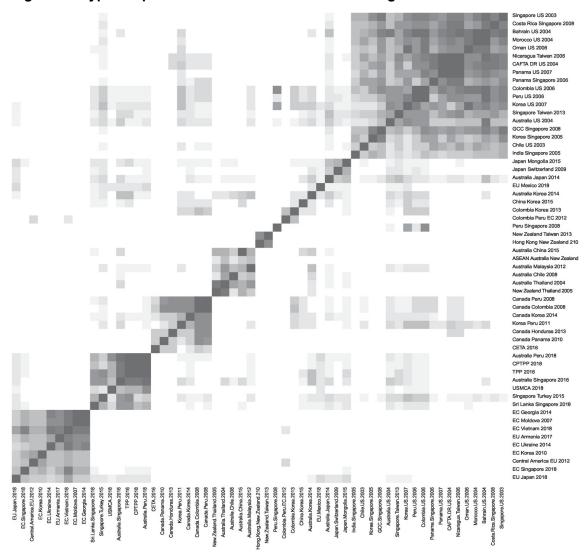|				
	protection (4.2(3)) → Strength: Medium, Level: Medium		purpose (14.11(3)) → Strength: Medium, Level: Medium	high	
EU-NZ FTA 2022	・Agree that the protection of personal information and privacy is a basic right and a high protection level improves the trust of consumers and confidence in digital economy (10.5(1)) → Strength: Soft, Level: High		・Work to ensure cross-border transfer (10.4(1)) + Permission of appropriate measures for the protection of personal information and privacy (the appropriateness is determined by each country) (10.5(2)) ・Re-evaluate within three years from entry into force → Strength: Medium, Level: Low	・Publication of relief and compliance methods (10.5(4)) ・Publication of laws and regulations, etc., response to requests, and establishment of a mechanism for response (20.3/4) → Range: Wide, Density: Slightly high	・Statement of opinion procedures and review/appeal procedures (20.5/6) → Range: Wide, Density: High

Figure 12. Types of provisions related to cross-border regulations of data in PTAs[16]

(This is a map of the similarities of the provisions on cross-border transfer regulations of PTAs based on text analysis. The darker the color, the greater the similarity. PTAs are classified into the U.S. type at the top right, the type centered on Singapore and Australia, mainly CPTPP, positioned a little lower than the center on the left side, and the EU type at the bottom left.)

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[16] Manfred Elsig and Sebastian Klotz, "Data Flow-Related Provisions in Preferential Trade Agreements Trends and Patterns of Diffusion," Mira Burri (ed.), *Big Data and Global Trade Law* (2021, CUP), p. 55.

3. Conclusion of the Expert Group

(1) Factors to be considered and prerequisite considerations in system design

Based on the above analysis, we will consider the complementarity of the solution proposed by the Expert Group in Chapters 1 through 3 (hereinafter called "Initiative") to the existing international systems. In considering the system design of the DFFT proposal, it is necessary to consider what proposals are [2] feasible (acceptable to many countries) and [3] meaningful (complementary to existing initiatives), based on [1] the format and nature of the document in which the proposal is to be raised among the parties.

First, [1] the position of the Initiative is mapped as a multilateral, soft law, and non-economic agreement according to the indicators used in 2. (1).

Next, as for the feasibility [2], it is necessary to note that, as pointed out in 2. (2), positive integration in non-economic agreements and PTAs have stagnated, and that there is a large gap between CPTPP, etc. and EU-NZ FTA and RCEP with regard to passive integration.

Finally, as for the significance of the Initiative [3], it is positioned as a non-economic agreement among a number of countries, as pointed out in 2.(2), the procedural regulations in existing non-economic agreements focus on the exchange of information among member countries and their authorities, the mechanism to increase transparency of laws and regulations, etc. to economic entities as in economic agreements are not developed, and the procedural regulations in PTAs are bilateral agreements or agreements among a relatively small number of countries, and their contents vary among agreements, so it is meaningful to set advanced procedural regulations applicable to many countries.

(2) Results of consideration of complementarity

Based on the above discussion, we present the result of an analysis of how this proposal is complementary to each of the three international systems: WTO Agreement (quasi-universal, hard law), non-economic agreements (multilateral, soft law/hard law), and PTAs (bilateral and multilateral, hard law).

(a) Complementarity [1] Institutional (value) neutrality (economic agreements; WTO and PTAs)

Considering the current state of regulations in economic and non-economic agreements, this proposal does not include substantive regulations because it is difficult to converge the positions of CPTPP, etc. and, EU-NZ FTA and RCEP no matter whether the substantive regulations are hard or soft laws. In other words, this proposal can be considered to be complementary to economic agreements in that it establishes an international institutional framework that can be launched rapidly and practically, and facilitates this through technical

and institutional responses to systems related to cross-border transfer, taking the systems of each country as given

(b)　Complementarity [2] Expansion of transparency (non-economic agreements)

As for procedural regulations (rules on transparency of publication of laws and regulations, etc.), as mentioned above, the current non-economic agreement provisions related to DFFT are limited to information exchange among member countries or their authorities and lack provisions to increase transparency of measures and reduce regulatory compliance costs, so it is meaningful to complement those provisions.

(c)　Complementarity [3] Hub role for transparency provisions (PTAs)

Even though procedural regulations have been introduced in economic agreements and many PTAs have extensive and detailed transparency obligations, the number of member countries pf PTAs is limited and the contents of the regulations vary among agreements, so it is very meaningful (complementary) to establish a system that plays a hub role.

Similarly, the WTO Agreements (especially GATS) are considered as a system that plays a hub role, but in addition to the limitations such as the targets of Article 6 of GATS being limited to service modes with liberalization commitments, it is also meaningful to address concerns over economic agreements (especially WTO) as stated at the beginning. Both economic and non-economic agreements share the common purpose of balancing economic benefits such as cross-border transfer of data with non-economic benefits such as privacy protection, and the balance between them varies, but the above-mentioned concerns suggest the usefulness of securing a different pathway for DFFT initiatives than economic agreements, which is particularly important from the viewpoint of technical and systematic responses that can be launched early.

Though extensive and detailed regulations have been developed, such as transparency provisions in PTAs or in the WTO Agreements (especially GATS), there are not necessarily sufficient systems to meet the practical needs of stakeholders such as private companies. Through the realization of the initiatives presented in Chapters 1 through 3, it will be possible to establish a system that greatly complements these existing initiatives.

Chapter 5: Implementation of the DFFT Clarification Framework

1. Problem statement

As concluded in the Interim Report, in order to realize DFFT, it is necessary to agree to the priority issues that multiple stakeholders face (ensuring transparency, etc.) in cross-border transfer of data among the countries concerned, and then consider the form of an international cooperation framework in which multiple stakeholders involved in the data life cycle can participate and cooperate to resolve these issues.

2. Opinions of Experts

(1) Discussion topics

Based on the premise that systems of each country for cross-border transfer of data differ due to regulatory requirements such as privacy, security, and protection of intellectual property rights, consider cooperation to improve "interoperability" to enable smooth cross-border transfer of data between such different systems and elements of a framework to realize such cooperation.

Even if the importance of cross-border transfer of data is widely recognized and there is no doubt about the need for its smooth implementation, it varies from country to country and society to society how to organize the relationship between various policy requirements such as privacy, security, and intellectual property rights and the necessity for cross-border transfer of data. In addition, policy requirements for data are often related to the country's most fundamental and prioritized values. In order to fulfill pragmatism which focuses on problem-solving in light of the complexity of cross-border transfer of data, it is effective to consider and propose elements of the cooperation framework for DFFT while also analyzing prior cases of processes in other fields that have analogous issues in terms of similar complexity and the number of stakeholders. In the Expert Group, it was concluded that the following characteristics might be helpful in overcoming complexity in cross-border transfer of data: ensuring participation of a wide range of stakeholders inside and outside the government in formulation of policies to realize the peace of "pragmatism" as seen in the peacebuilding process after a conflict; cultivating common understanding of "what to do from now" upon evidence-based analysis of "what happened" among stakeholders even if there remain differences in values and ways of thinking, emotional frictions, etc.; and thoroughly prioritizing "give clear benefits" for all stakeholders.

(2) Viewpoints of discussion

In considering a proposal for a cooperation framework for DFFT, we focused on two main

points: (1) the framework should help to deepen mutual understanding and establish trust among stakeholders involved in the data life cycle including companies, civil society, and experts; and (2) the framework should be beneficial to all participants considering participation from a wide range of countries.

(3) Results of the discussion

Improving transparency about the system of each nation is expected to benefit those who are subject to the system by making it easier for them to understand and comply with the system, which improves data protection. Based on this, it was suggested that two forums with different purposes (DFFT's dialogue and consultation forum) should be established as the first step to establish trust among stakeholders.[17] Two forums with different purposes are (a) "forum for dialogue between stakeholders and government authorities" and (b) "forum for consultation among government authorities." The point of this proposal is to establish two forums with different purposes. The reason for this will be explained through a detailed description of the expected roles of the two forums.

(a)   Forum for dialogue between stakeholders and government authorities

"Forum for dialogue between stakeholders and government authorities" is a place where stakeholders such as companies, civil society, and experts, and government authorities in each country can exchange information and opinions. There are two main expected roles for this forum for dialogue.

[1]   Reduce compliance costs for stakeholders

The first expected role is to help companies, civil society, experts, and other stakeholders better understand the systems of each country for cross-border transfer of data and reduce compliance costs. Specifically, in the forum for dialogue between stakeholders and government authorities, government authorities provide information on systems of each country for cross-border transfer of data, including relationship concepts such as terminology and taxonomy, and each stakeholder inputs their awareness of problems. As a result, it is expected that the multiple stakeholders as a whole will be able to grasp the systems of each country and reduce compliance costs by deepening mutual understanding with the government authorities.

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[17] The Global Partnership on Artificial Intelligence (GPAI) also has two forums: 1) "governance track," including the ministerial meeting and the executive board, in which governments participate, and 2) the "expert track," in which representatives from academia, civil society, industries, and labor/trade unions play a central role. The similarity of these forums to this framework was pointed out.

[2]　Provide a forum for stakeholders to provide ideas on systems

The second expected role is to provide a forum where related ideas such as PETs, Reg Tech, and regulatory sandbox systems are given from subjects who use data of the private sector to government authorities. The establishment of a forum for dialogue will realize an extensive and centralized collection of input information on the latest technologies and initiatives, which is expected to enable agile responses.

(b)　Forum for consultation between government authorities

"Forum for consultation between government authorities" is a forum for dialogue and consultation among government authorities in which stakeholders such as private companies do not participate. This forum provides an opportunity for private exchange of opinions, information sharing, and intergovernmental consultation on various matters related to the cross-border aspects of data. It is also important to clarify the benefits of participation by making the forum for dialogue and consultation a closed and privileged forum for sharing of information "only available here" so that the benefits of participation will become clear. There are two main expected roles for this forum for dialogue and consultation.

[1]　Icebreaker that contributes to the realization of DFFT

The first expected role is to achieve an icebreaker that contributes to the realization of DFFT, for example, through frank exchange of opinions which would be possible only between government authorities bound together by trust; two specific cases are assumed. One case is response to domestic companies through the domestic government authorities regarding systems in other countries based on the information provided. Here, it is assumed that a government authority will share information about contents that cannot be disclosed to stakeholders such as private companies on the assumption of limitation to government officials. Such information is expected to include background circumstances and information about the system, and the reason why it is blackboxed. Government authorities that received information are expected to make responses based on the provided information while considering the circumstances of other government authorities, though it is not direct provision of information to domestic companies.

The other case is to deepen mutual understanding between government authorities regarding data. For example, the government authorities of Japan aim in the long term to establish a forum for exchange of opinions regarding disadvantages of a blackboxed system and explanation of sensitive circumstances, etc. for the system, in a constructive environment. Even when such deep dialogue is difficult, it can be expected to at least

encourage ensuring transparency limited to intergovernmental sharing of information.

[2] Exploration of possibilities of rule-making for harmonization and standardization of systems of each country

The second expected role is to provide an opportunity to explore the possibility of rule-making for harmonization and standardization of systems of each country based on input from multiple stakeholders. In doing so, it is also expected that existing regulations and other ongoing rule-making negotiations will become obstacles to the promotion of some new systems. Therefore, it is also important here to address concerns about economic benefits in the negotiations and management of economic agreements, and clearly indicate the correspondence and similarity with other economic and non-economic agreements and the support of non-economic benefits in management. This is because emphasizing the complementarity of DFFT with existing systems is expected to expand DFFT to a wider range of countries.

3. Conclusion of the Expert Group

Based on the above view, the Expert Group proposes the establishment of "DFFT Stakeholder Dialogue," a forum for dialogue between stakeholders and government authorities, and a "DFFT Intergovernmental Meeting," a forum for dialogue between government authorities, as forums for deepening mutual understanding of systems among countries essential for realizing DFFT, thereby reducing the compliance costs of companies. Rather than setting up an ad hoc forum for each individual project and discussing cooperation projects from scratch, establishing such a permanent forum for multi-stakeholder collaboration will make it possible to clarify policy proposals such as those presented in the discussions of the Expert Group as specific international cooperation projects and promote DFFT efficiently.

It is expected to be relatively easy to obtain buy-in for such a proposal among like-minded countries that share basic values. On the other hand, in order for the proposal to obtain buy-in from a wider range of countries, the following four points should be noted.

(1) Important elements to be considered in the proposal

It is important to take into account the following four elements in order for the proposal to establish a forum for dialogue for the clarification of DFFT to obtain buy-in from a wider range of countries. These elements are also taken into account in dialogues on human rights and

humanitarian issues, other diplomatic negotiations, etc.[18]

[1]   Non-exclusiveness

Non-exclusiveness refers to keeping this proposal as open as possible so as not to give the impression that certain countries are excluded. It is a specific example of a proposal to involve Asian countries such as those in ASEAN, which are geographically and culturally close to Japan, from an early stage.

[2]   Inclusiveness

Inclusiveness refers to not giving the impression of a forum for criticizing a specific party by emphasizing that the purpose of the forum is to comprehensively set agendas that pick up a wide range of subjects for dialogue without focusing on specific issues such as trade, security, privacy, and e-commerce.

[3]   Non-contextualization

Non-contextualization refers to emphasizing DFFT as a social infrastructure to avoid dependence on a specific context such as trade. For example, taking only the viewpoint of the "free trade" norms of traditional trade laws might be criticized. Diverse contexts other than the trade field have their own values associated with them, and there may be stakeholders with particularly strong interests. At the G20 Summit, at which DFFT was first proposed in 2019, it was initially emphasized that discussion would proceed under the WTO as the Osaka Track, but the current G20 is also emphasizing aspects such as data for development and data for SDGs, and the context in which DFFT is positioned is changing.

[4]   Non-politicization

Non-politicization refers to avoiding politicization as much as possible in order to ensure an environment in which each participant can freely exchange opinions; this requires, for example, the participation of the chairperson and the reporter as individuals independent of their organizations, etc. At each meeting, administrative officials of the government authorities should control themselves to avoid politicization, which hinders negotiations, and be careful to ensure the participation of experts and persons of affairs such as lawyers and engineers who can discuss independently of politics to some extent.

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[18] Swiss Federal Department of Foreign Affairs (FDFA), Safeguards to Ensure Non-Politicized State Dialogue on International Humanitarian Law (IHL)
https://www.eda.admin.ch/content/dam/eda/en/documents/aussenpolitik/voelkerrecht/respect-ihl/5-Ensure-Non-Politicized-State-Dialogue-IHL_en.pdf

(2) Reduction of the burden of participating countries

The burden of participating countries to ensure transparency should be reduced to give incentives for their participation in dialogue and ensure capabilities.

Particularly in developing countries, one officer is often in charge of multiple systems, so it is difficult to obtain buy-in for proposals that lead to an increase in burden in the first place. The role of the Secretariat is important in terms of reducing the burden of participating countries to ensure transparency.

The roles of the Secretariat are not only to organize the discussion but also to map the systems of each country and prepare background documents that will serve as the basis for discussion, so the Secretariat is very important in not only reducing the burden of participating countries but also steering discussions. Considering the importance of the Secretariat, Japan, which is one of the few countries that can act as a bridge between the West and non-Western countries, may have an important role to play from the viewpoint of decontextualization and depoliticization for the Secretariat of this proposal.

Furthermore, in addition to the Secretariat function, it is also possible to consider reducing the burden of participating countries by utilizing or concurrently assuming the framework and contact of existing adjacent systems. This utilization of the framework and contact of adjacent systems also leads to emphasis on the complementarity between DFFT and existing systems.

(3) Non-disclosure

It is important to enable government authorities to frankly discuss sensitive matters by providing a certain degree of non-disclosure assuming the Chatham House Rule (rule of not identifying the person who made a particular statement externally), etc., and clarify the benefits of participation by making the forum a place for sharing information "only available here" and making it possible to adjust the scope of disclosure of (4).

(4) Disclosure of outcome documents

It is also important to provide a certain degree of accountability to stakeholders who are not participating in the forum by making the outcome documents public to the extent possible, while maintaining a certain degree of non-disclosure in (3). For countries that value democracy and liberalism, complete non-disclosure of the forum is not desirable. Since outcome documents will be released based on the non-disclosure of dialogue and consultation, it is necessary to aim to achieve accountability by disclosing the outcomes of dialogue and consultation in a manner that does not identify the speaker though the contents of dialogue and consultation will not be disclosed.

In addition, the contents of the outcome documents must be described in a descriptive rather

than analytical manner. It is necessary to be careful not to make an impression of criticizing a specific country or a specific case and to avoid politicization.

Chapter 6: Conclusion

Finally, we summarize the main points of the discussion so far, based on the relationships among the chapters discussed in this report.

As summarized in the Interim Report, in order to realize the vision of DFFT, the Expert Group has been proceeding with consideration based on the awareness of the need to respect of individual country's regulatory approach for data governance and work pragmatically from what is currently possible to actually maintain data flow across borders with compliance of the regulatory requirements necessary to ensure "trust" in privacy protection, cyber security, protection of intellectual property rights, etc.

Considering what should be done to actually transfer data across borders, it is important to take into account the issues that stakeholders in the data life cycle confront when transferring data across borders. To do so, as discussed in Chapter 5, it is effective to establish a "forum for dialogue between stakeholders and government authorities" to ensure that stakeholders have the opportunity to provide input to governments on issues and best practices as measures to address the issues. It is also possible to establish a "forum for consultation among government authorities" to share information and exchange opinions among governments based on input from multiple stakeholders.

In addition, it is essential, for the early promotion of cross-border transfer of data that relevant stakeholders cooperate in, to actually address the issues identified in the discussion, and not just discuss them in the forum for dialogue described above. For this reason, this year's Expert Group discussed measures to address the issues in cross-border transfer of data identified by the Expert Group last year. The measures considered this year provide sufficient input at least to explain the necessity when establishing a forum for dialogue such as the one mentioned above.

Individually, we considered ensuring transparency in Chapter 1 and concluded that we were going to proceed with the measures based on two pillars: "establishing a system for matching organized information on each country's system for cross-border transfer of data" and "establishing a mechanism for the applicable system to work." This is expected to ensure that stakeholders appropriately comply with laws and regulations, etc. when conducting cross-border transfer of data, and also benefit governments aiming to ensure compliance with laws and regulations, etc.

Next, in Chapter 2, based on the current approach of data governance, we proposed ways to achieve compliance with the systems through measures such as technologies and

standardization. As non-government stakeholders, mainly companies, also have a great deal of knowledge on technologies, this is a domain where it is particularly effective to deepen mutual understanding through a "forum for dialogue between stakeholders and governments." In addition, in Chapter 3, assuming that each country has different systems for cross-border transfer of data, we proposed possible measures to ensure interoperability centered on the utilization of technologies such as collection and consolidation of information and discussion about cross-border transfer of data and arrangement of an environment for promotion of the utilization of technologies such as PETs and Reg Tech, discussed in Chapter 2 by establishing the Regulatory Sandbox and Digital Sandbox systems, including provision of information on the latest trends of technologies and standards from stakeholders in the "forum for dialogue between stakeholders and governments."

It is then considered to be important to design the system with an awareness that the course of action in these initiatives is complementary to the existing ones described in Chapter 4.

Based on the contents proposed in this report, we hope that Japan takes the initiative to establish an international cooperation framework so that all stakeholders involved in the data life cycle, including companies, civil society, experts, and governments, can work together to jointly implement the necessary measures to promote cross-border transfer of data, and concrete results will be achieved involving many countries in the future.