Agile Governance Update

How Governments, Businesses and Civil Society Can Create a Better World By Reimagining Governance

GOVERNANCE INNOVATION Vol.3

Ver.3.1 EN

Objectives of the Report

With the aim of presenting new governance models for an era of cyber-physical integration, the Study Group on New Governance Models in Society5.0 published two Governance Innovation reports: "GOVERNANCE INNOVATION: Redesigning Law and Architecture for Society 5.0" (hereinafter referred to as the "Ver. 1 Report") in 2020, and "GOVERNANCE INNOVATION Ver. 2: A Guide to Designing and Implementing Agile Governance" (hereinafter referred to as the "Ver. 2 Report") in 2021. The Agile Governance model presented in the Governance Innovation reports received a very positive response from readers all over the world.

With the increasing interest in agile governance, we received many requests to provide a commentary to facilitate a holistic understanding of two Governance Innovation reports. We also received many questions on the specific processes of operating agile governance.

Accordingly, the Study Group is releasing this Report with the main objectives outlined below:

Objectives of the Report

- Clarify the overall perspective of "agile governance" presented in the two Governance Innovation reports. (Part I)
- Outline the implementation processes of agile governance. (Part II)
- Present institutional designs and incentive mechanisms for implementing agile governance, with specific examples. (Part III)

Around the same time the Governance Innovation reports were released, discussion on agile governance started to increase globally. In terms of agile regulation, the OECD published the "Recommendation of the Council for Agile Regulatory Governance to Harness Innovation" in October 2021. The Global Future Council on Agile Governance of the World Economic Forum published a toolkit for agile regulation in 2020. Also in the same year, the Agile Nations, an international cooperation network designed to foster cooperation on rule-making to promote innovation, was established. Further, the perspective of agile

governance has been incorporated into international standards led by the private sector in various contexts, such as information security management and legal risk management. Meanwhile, the analysis presented in Japan's Governance Innovation reports has attracted attention from the global community as it provides a comprehensive governance framework that goes beyond the traditional frameworks of regulations or corporate governance, etc.

In the meantime in Japan, the Digital Extraordinary Administrative Advisory Committee was established in November 2021, and the "Agile Governance Principles (Agile and Flexible Governance)" were presented as one of the principles that serve as common guidelines for digital, regulatory, and administrative reforms. In the context of corporate governance, businesses are also starting to recognize the importance of proactively getting involved in the governance processes instead of simply following the rules set by the government. To support such efforts, guidelines on AI governance and privacy governance have been formulated. In addition, new structures are starting to emerge, enabling individuals and communities to be involved in governance implemented by the government and businesses. Consequently, it is becoming increasingly important to consider the ideal state of governance for societies as a whole, not by limiting the scope to individual areas such as regulatory/administrative reforms by the government, governance reforms by businesses, or reforms of public involvement, but by understanding their organic relationships.

We hope to receive opinions on this Report and example cases from many readers, so that this Report may contribute to the further development of theoretical and practical frameworks for agile governance and to the realization of an innovative, happy, and free society.

January 31, 2022

Study Group on New Governance Models in Society5.0

CONTENTS

Part I

Overview of Agile Governance

In Part I, we will present the overall perspective of the agile governance framework based on the discussion in two Governance Innovation reports.

1 Why is “governance” needed for “innovation”?

1.1 What is innovation?

We are facing a multitude of issues in the modern world we live in, ranging from aging societies accompanied by declining birthrates, the concentration of populations in urban centers and waning economic growth, to expanding income disparities, rapid climate change and environmental destruction to name but a few. In order to overcome these issues and create societies where each and every individual is able to live prosperous, free and happy lives, we should make innovation enabled by systems that highly integrate cyber and physical spaces (CPS: cyber-physical systems), such as AI, big data, IoT, and 5G. The government of Japan has named such society “Society 5.0”, and we have been discussing how to design governance models for Society 5.0.

“Innovation” in this context is not a mere technological development. Rather, it is a technological development accompanied by a transformation of value creation models; “creative destruction” as Joseph Schumpeter called it. Examples of historical innovation include railroads, automobiles, the telephone, and the Internet, and more recent innovations include smartphones, cloud computing, the sharing economy, etc. Innovation differs from an “improvement” of an existing business model because it fundamentally transforms the mechanism of value creation. Innovation also differs from “invention” as a mere technological development. Innovation is not achieved unless it is implemented in a society, and in turn generates value.

Schumpeter also called innovation “new combinations.” In Society 5.0, it is assumed that various actors whom we cannot foresee at the time a product or service is designed, such as new service providers, autonomous robot or consumers, will join systems one after another and become mutually connected[1]. Such “new combinations” are the key characteristic of innovation in Society 5.0.

1) A system which dynamically links and uses multiple systems that function independently is called a “system of sytems” in system engineering.

In the modern age where social issues and technological innovation are progressing faster than ever, it is becoming essential to create dynamic innovation in societies on an ongoing basis in order to solve social issues and achieve the happiness of each and every individual.

Cases where it took time for an invention to be implemented and become "innovation"

- After the principle of power generation was discovered, it took approximately 50 years for the invention to start creating value as industrial infrastructure.
- An automobile powered by a gasoline engine was developed in Germany in 1886, however, it was more than 20 years later in 1909 that the authorities established automobile traffic law.
- The Wright brothers achieved the first powered airplane flight in 1903, and aviation law was established in the 1920s. The use of airplanes as a means of transportation started in the 1930s, and it was popularized around the 1960s.

1.2 Increasing importance of "governance"

Innovation in this context could affect the risks and interests of various stakeholders, therefore it needs to be accompanied by a mechanism (technologies, rules, organizations, etc.) so that those risks and interests may be appropriately distributed. Such mechanism is the "governance" presented in the Governance Innovation reports and this Report. In the Ver. 2 Report, "governance" was defined as follows:

> The design and implementation of technical, organizational, and social systems by stakeholders, with an aim to manage risks in a society at an acceptable level, while maximizing the positive impact arising from innovation

To put it simply, we can say that governance is "design and implementation of a mechanism (technologies, systems, organizations, etc.) for achieving certain goals shared by stakeholders." In order to realize Society 5.0 where happiness and freedom are achieved through innovation in cyber-physical systems, we need to design and implement governance from the perspective of Governance FOR/OF/

BY Innovation as explained below[2].

1.2.1 Governance FOR Innovation

Innovation is the transformation of a value creation model, and it can affect society in a way that had not been anticipated in the past. As a result, it could conflict with existing laws and regulatory systems, or the applicability of law could become ambiguous and a gray area. Nevertheless, implementation of innovation should not be hindered just because "it was not anticipated by existing social systems." As existing systems were designed based on the social situation at a specific point of time in the past, they should be updated if the assumptions change, by going back to their original objectives. To promote innovation, social systems need to be updated in an agile and flexible way based on an expectation that assumptions could change faster than ever.

On the other hand, even if there is not an existing rules that hinders innovation, it may be still difficult to gain the trust of society in general. As a result, innovation often ends up not being implemented. In such case, establishing a set of rules and monitoring mechanisms for cutting-edge technologies or business models could often build confidence in a service, thereby pushing forward the implementation of innovation in societies.

In order to achieve Society 5.0, it is important to have this perspective of "Governance FOR Innovation", which does not hinder but rather promotes innovation.

Examples of Governance FOR Innovation

- In the Hotel Business Act (1984), the legal status of so called "home-sharing", where individuals rent out their houses and unused rooms, was not made clear[3], however, as the Home-Sharing Business Act was enacted in June 2018, home-sharing became explicitly legal in Japan. Behind the enactment of this new law were the private lodging operators who established a

2) Ver. 1 Report, 1.2
3) "Report by the Study Group for Development of Ideal Approaches to Legal Functions in Japanese Companies for Enhancement of International Competitiveness - Legal Functions / Legal Talent needed for the Reiwa Era -" (2019) by the Ministry of Economy, Trade and Industry / Study Group for Development of Ideal Approaches to Legal Functions in Japanese Companies for Enhancement of International Competitiveness https://www.meti.go.jp/press/2019/11/20191119002/20191119002-1.pdf

governance approach suitable for the modern age and gained trust by considering how social situations had changed since the establishment of the Hotel Business Act, while respecting the objectives of the Act.

- The Sharing Economy Association, Japan, which is organized by companies providing sharing services, operates the "Sharing Economy Certification System." The aim of this system is to increase users for certified business operators by conducting a third-party assessment of the safety and credibility of shared services and publishing the results. Certification by the Sharing Economy Association, Japan is carried out pursuant to the self-regulations (co-regulations) which the Association has established based on the guidelines issued by the government.

1.2.2 Governance OF Innovation

Considering the characteristics of cyber-physical systems which are the foundation of Society 5.0, the need for governance of innovation is increasing more than ever.

Cyberspace was formed in the era of Society 4.0 (information societies), and in Society 4.0, humans played the role of the node that ties cyber and physical spaces. For example, when deposit balance and loan history began to be recorded as electromagnetic data, it was still humans that made the lending decisions. When X-ray images began to be saved as electronic medical records, it was humans that interpreted those images and made decisions. In such society, it was always humans that operated the systems based on decision-making, and what was required of systems were the reliability that they could serve as a tool and accurately complete the missions given by humans, and/or safety in the context that they could withstand foreseeable problems.

On the other hand, technologies such as AI that comprise Society 5.0 are expected to make autonomous decisions on behalf of humans, or directly intervene in the decision making or situations of humans. For example, it is becoming possible for such technologies to calculate the probability of a loan becoming a bad debt (which humans cannot figure out) in a shorter time and with higher accuracy than humans by using an enormous amount of data and a multi-layered algorithm, or to indicate areas suspected to be affected by disease based on medical images. Further, there are many cases where it is already theoretically/technologically possible to have machines take actions without the intervention of humans. For example, a financial institution can

automatically reject a loan request based on an autonomous decision made by a system, or a certain part of a human body may be excised based on an autonomous operation by surgical robot.

Consequently, in Society 5.0 where autonomous systems will further evolve, not only requirements for reliability and safety (which have been regarded as requirements for systems that follow instructions given by humans) need to be fulfilled, but also values that have been delivered by humans, such as privacy, equitability, and sustainability, need to be achieved as part of system operation. In doing so, we need to consider matters such as how to define the value which we cannot necessarily quantify; how to embed such value in a system design ("By design" approach); and what obligations will be imposed on system administrators.

In addition, in Society 5.0, "system of systems" – systems that dynamically connect and use multiple systems with independent functions – such as payment systems and mobility control systems in smart cities will have larger roles to play. As the predictability of results and controllability of such complex systems will be significantly limited, we also need to consider matters such as how to ensure that above-mentioned values are realized, and who should be responsible for the damage caused by the fast-changing and complex systems.

These days, our behavior is becoming increasingly dependent on autonomous and complex digital systems both in business situations and in our daily lives. In such an era, the need for Governance OF Innovation is increasing more than ever.

Cases where Governance OF Innovation became an issue

① **Discontinuation of an urban development plan for Toronto, "IDEA"**

In October 2017, Sidewalk Labs, which is owned by Google's parent company Alphabet, announced its plan to launch "IDEA (Innovative Development and Economic Acceleration)", which was a smart city project designed to create a city of the future in Toronto, Canada. However, as the project came under criticism from the media and protests from local residents, the plan was cancelled in May 2020. In this plan, different cutting-edge technologies such as modular green buildings and autonomous vehicles were to be utilized, and it included an innovative plan to collect various data related to the lives of the public and to use such data in most advanced services. However, citizens

of Toronto and interested organizations expressed strong concerns over the collection and management of citizens' data. This is believed to be the reason for the termination of the plan. This case shows that, in order to implement a new system where a private company manages a city, it is important for the management company to fully present a reliable governance model to stakeholders.

② **Whistle-blowing by a former employee of Facebook (now Meta)**

In October 2021, a former employee of social media giant Facebook (now named Meta) made an accusation that while knowing its services could be socially harmful, the company prioritized profit and did not bother to take effective remedial measures. According to the disclosed document, the company used algorithms to display contents that inflated not joy and happiness but hate and anger so that it could maximize its user engagement (number of likes, clicks, comments and shares). Moreover, it has been pointed out that while the company found through its own research that 13.5% of teen girls using Instagram say Instagram makes "thoughts of suicide worse", and 17% of teen girls say Instagram "makes eating disorders worse", it has not taken any countermeasures. This case highlights the need for proper governance over negative impacts of a company's own innovation that are hard to notice from outside, and the importance of a mechanism such as a whistle-blowing system that encourages people familiar with the situation to raise issues.

③ **Challenges related to the use of data sets for facial recognition**

In January 2019, IBM released a data set called "Diversity in Faces (DiF)" which contains the facial images of 1 million diverse individuals. However, it was found that photographs on "Flickr", which is a photo-sharing community website, were used for DiF's facial image data, and some Flicker users claimed they did not consent to having their photos used in the data set. While IBM pushed back against this, arguing that the use of photographs did not pose a legal issue because it only used images tagged with a "creative commons (CC)", public copyright license which usually has less-than-usual limitations related to copyright, it became clear that there was a gap in understanding between the company and general users, and that consensus building for the use of the photographs was insufficient. This case shows that when using facial images, having a legal ground is not enough[4], and that it is important to thoroughly explain the matter to those affected and obtain their consent based on their proper understanding.

1.2.3 Governance BY Innovation

If humans implement governance as in the past, the speed and accuracy of governance will be defined by the limitations of human

4) However, there is room for debate as to whether there are legal grounds for the use of facial images since, in addition to copyright issues, the privacy and portrait rights of the object could also be an issue.

ability. On the other hand, if we utilize highly advanced data collection and data analysis technologies that are available today, it would be possible to implement more efficient and accurate governance.

For example, if data is collected by sensors in real time instead of through visual inspection and examined by human beings during an inspection of infrastructure or plants, we will be able to eliminate physical risks to inspectors and regularly conduct more accurate inspections. Also, as a response to a number of claims of copyright infringement reported daily on video sharing platforms, platform operators use AI which automatically determines whether there is an infringement of rights. In order to determine the appropriateness of such decision making by AI, it is also necessary to use the power of AI.

In Society 5.0 where digital systems enable mass processing of information, the perspective of Governance BY Innovation is also very important.

Examples of Governance BY Innovation

① Smart security

Business facilities that are subject to the High Pressure Gas Safety Act must suspend their operation to conduct a safety inspection once a year in principle. However, under the "Super-certified facilities" system which was introduced under the High Pressure Gas Safety Act in 2017, it became possible for facilities that fulfilled certain requirements, such as (i) introduction of new technologies such as IoT and real time data and (ii) establishment of an advanced risk management system, to continuously operate for a maximum of eight years (although safety inspections must be conducted, there is no need to suspend operation).

② Automation of construction equipment by AI

In the construction industry, the accelerated retirement of skilled workers and a lack of workers have been a concern across the industry, and there is an anticipation for enhanced productivity with reduced manpower and automation. As a result, automation of construction equipment by AI is drawing attention in recent years. When operating construction equipment, humans pay attention to the surrounding environment and operate equipment with safety in mind, however, when unmanned construction equipment run by AI, we need to establish a separate mechanism to ensure safety. Minimization of risks of physical injuries is an especially high priority. As a technical method of mitigating the risks of accidents, for example, we can assume a mechanism where the work area of construction equipment is made off limits to humans, and if a person enters the area, it will be detected automatically and AI construction equipment operation will be suspended. As a way to detect people entering the work area, they can

be detected by processing information obtained from 3D point cloud data and/or RGB data fed from LiDAR and/or cameras installed on construction equipment, or magnetic field generators may be used to detect them by detecting RFID embedded in their gear.

2 Why “innovation” is needed for “governance”?

“Governance FOR/OF/BY Innovation” needed for Society 5.0 is not something that can be achieved by making only “improvements” to existing governance models or through simple technical “inventions”. In other words, what we need is "governance innovation” that fundamentally redesigns various governance mechanisms, such as regulations, corporate governance, and democratic systems, for the reasons given below.

2.1 Increasingly complex societies and diverse goals

2.1.1 Changes in technology and social structure

In Society 5.0, complex data analysis will be performed by deep learning and other technologies for a larger scale, scope and variety of data, and the processed results will directly affect the physical space. Moreover, systems that function independent of each other will be dynamically and mutually connected (i.e., system of systems) and overcome geographical limitations and barriers between industries.

Societies based on these systems will change rapidly, and the predictability and controllability of the future will be significantly limited, making it difficult to determine the responsible party when an issue arises. In addition, the characteristics of Society 5.0 also include the further concentration of controlling power that transcends industries and the further connection of local and global. We can say that it will be a VUCA (Volatile, Uncertain, Complex, and Ambiguous) society.

Accelerated speed of implementation of innovation and obsolescence of existing systems

- The third AI boom, which was prompted by the advancement of deep learning, started

around 2012. From there, in just 10 years, AI has accomplished remarkable results not only in the field of image processing but also in fields such as natural language processing.

- The first model of the iPhone, which was the pioneer of the smartphone industry, was released in 2007. In the following 15 years or so, smartphones have become a device which more than 80% of the public own.
- The operation of "4G", which is the fourth generation mobile communication system, began in 2015, and only five years later in 2020, the following generation of "5G" was launched.

2.1.2 Diversification and relativization of governance goals

With the increased impact advanced and complex systems have on human societies and the natural environment, the types of "goals" to be achieved through governance are also becoming diverse. Whether it is a government or a business, they are now expected to aim at goals that go beyond mere economic growth, by taking into account the contribution to public values such as sustainability, a circular economy and the environment, as well as the essential values of human beings, such as human rights, the right to self-determination, diversity, and inclusion[5].

Moreover, the goal of "safety" for example, is traditionally defined as "freedom from unacceptable risk", therefore in systems that have a simple structure and the ability to predict changes, it is possible to analyze the risk in the design phase and manage the risk with safety measures (i.e. safety by design). On the other hand, in systems with risks that are difficult to predict completely and in advance, such as AI systems or "system of systems", the prevailing idea will be to recurrently define and manage the risk not only in the design phase but throughout the use of the system to ensure safety.

In short, goals in Society 5.0 are difficult to quantify, and the structure of those goals are complex as the substance of those goals and the line between "acceptable" and "unacceptable" continue to change with the advancement of technology and changes in values.

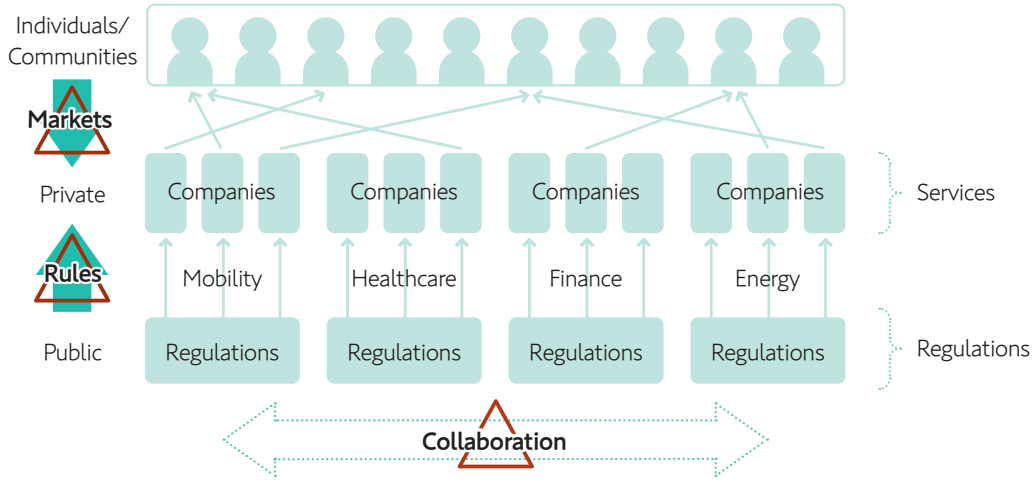
5) In connection to these goals, we set the ultimate goals as the "happiness" and "liberty" of individuals in the Ver. 2 Report. We also pointed out that there is a hierarchy of various kinds of goals, such as the core values of "basic human rights" and "economic growth" that are essential to the achievement of the ultimate goals. These core values are in turn supported by "democracy" and "sustainability." There are also more specific goals, such as "privacy", "fair competition", and "safety of life and physical safety." Please refer to Section 3.1 of the Ver. 2 Report.

Examples of difficulty of setting goals

- In today's societies where data is accumulated in cyberspace, "privacy" should be interpreted using different approaches, such as "the right to have data administrators and users effectively perform objective and proper management of personal data" or "the right to be provided with proper information and choices so that one is able to provide effective consent to the use of one's private information", however, the specific scope of privacy depends on the personal values of individuals and the cultural background of societies.
- "Sustainability" is not a rigid goal, therefore we need to keep defining the concrete meaning based on the situation at the time.
- Balancing multiple goals often becomes an issue. For example, in the case of services that use personal data, while analysis of more refined data will enhance the "quality" of the service and increase users' benefits, "privacy" might be exposed to greater risk. Moreover, if data is concentrated in a single business operator, it will enable crosscutting and sophisticated services, improving the convenience of users, but at the same time, such business operator will have an overwhelmingly dominant position, which could create an issue regarding "fair competition."

2.2 Limitations of traditional governance models

Figure 1 Illustration of a traditional governance model



As mentioned in Section 1.2, governance is a mechanism for achieving "goals" in "societies." In Society 5.0, both the "societies" and "goals" will become more complex and diverse, affecting each other and constantly changing, therefore governance that crosslinks them will be extremely difficult to achieve. Under these circumstances, governance systems, such as traditional laws and regulations, markets,

and democratic systems, are facing the limitations described below.

2.2.1 Governance by regulations

Traditional models of laws and regulations are models where the government divides business models by industry, uniformly imposes and oversees detailed duties of conduct, and imposes sanctions on those who violate such duties. However, these models have the following limitations:

① **Challenges regarding rule-making**

In Society 5.0, technologies and business models change rapidly and are complex, and it is easy to overcome the barriers that customarily existed between industries. Consequently, it is difficult to define specific duties of conduct for each business model, and even if such duties were defined, they will quickly become obsolete. Furthermore, as goals become more diversified, it is becoming difficult to define the goals of law in a uniform manner.

② **Challenges regarding monitoring**

While it is becoming possible to obtain various information needed for monitoring, such as real-time data collected from sensors, it is difficult to uniformly define the methods and indicators to be used in the monitoring.

③ **Challenges regarding enforcement**

If an issue arises as a result of various systems being inter-operated and affected by each other, or if an accident occurs as a result of an autonomous decision made by machines such as AI, it will be difficult to identify the responsible party.

④ **Issues regarding the scope of geographic jurisdiction**

In a society that originates in cyberspace, which is connected across national borders, it is difficult for a single government to sufficiently protect the interests of its citizens simply by defining a set of rules and enforcing them.

⑤ **Challenges regarding the organization of law enforcement bodies**

In Society 5.0, it is common that services are provided by combining multiple cross-sectorial functions. For example, in order to implement MaaS (Mobility as a Service), not only the transportation function but also other various functions need to be combined, such as radio wave communication, payment, and privacy data usage functions, and this makes it difficult for traditional siloed government organizations to achieve integrative governance of these functions.

Consequently, governance models by way of regulation are faced with difficulties because the barriers that customarily existed between industries and national borders are becoming more relativized in Society 5.0, and therefore the information asymmetry between the public and private sectors is increasing, in a way that the private sector now has overwhelmingly more information than the public sector. Accordingly, we need a mechanism that can broadly incorporate information held by the private sector (such as businesses and individuals / communities) into regulations and the government organizations in charge of such regulations, and swiftly update the systems in a cross-cutting manner.

2.2.2 Governance by market mechanisms

In addition to regulations, governance through market mechanisms is also one of the important governance mechanisms, especially in the context of disciplining corporate behavior. If a company cannot provide products and services that are appreciated by customers such as consumers and buyers, the sales of that company will fall, and it could in turn jeopardize the company's existence. For this reason, businesses devise their R&D and sales strategies so that they can provide products and services that are desired by customers. This is the basic form of governance through market mechanisms.

However, this does not mean that this type of governance always works. Especially in Society 5.0, there will be an issue of whether or not it is possible for customers to obtain enough information and insights to base their decisions on. For example, it is difficult for users

to find out how the data they provide will be processed, or the quality of the services provided to them (however in current markets, score ratings and word of mouth reviews are provided as a service. Such scores and reviews will mitigate the asymmetry that exists between consumers and products to a certain extent).

In addition, if businesses that provide products or services have a strong bargaining power, there will be a competition policy-related issue where customers will be left with no choice. For example, issues have been pointed out that some businesses with overwhelmingly large amount of customer touch points and data are one-sidedly specifying users' choices (e.g. what types of personal information users will provide when using their services), and/or choices businesses have over the course of their business activities (e.g. what amount of consideration they will pay when running an online advertisement).

2.2.3 Governance by individuals and communities

As the ultimate goals of governance in Society 5.0 are to increase the happiness and liberty of each individual, the participation of individuals and groups of individuals (i.e. communities) is beneficial or even essential.

However, opportunities for individuals and communities to be involved in policy decisions other than through casting of votes at elections are limited. Further, while they can submit opinions to the administration through public comments, and assess administrative processes by requesting the disclosure of administrative documents, the actual impact those actions has on administrative affairs has not been sufficient.

Also for corporate governance, individuals can participate by exercising their influence as shareholders, or by making decisions as consumers to purchase products/services, however, the influence ordinary individuals can exercise through these actions is limited. Aside from these traditional ways of participation, nowadays it is often possible for individuals to participate in rating of services through social media and reviews. However, it is common that non-users of a service can also provide ratings for services on social media and review

websites, and they can also take part in online flaming. In the past, businesses only needed pay attention to the voice of users, but now they also need to pay attention to the voice of non-users. In short, not only users but also non-users are now becoming actors that have influence on corporate governance to a certain extent.

When individuals and communities participate in governance in Society 5.0, careful consideration is required in terms of the asymmetry between individuals/communities and the government/businesses, as well as the information individuals and communities can refer to when making decisions. Information which each individual can use to base his/her decisions on is usually information that has been selected in some way, and the information that is provided in digital space may include information selected by a so-called filter bubble to suit the taste of an individual, or information that exaggerates facts with an intention to increase the number of clicks, or information that states only one-sided views. Moreover, as the originators of information are becoming more diverse, there are often cases where social disapproval is triggered based on incorrect information or fragments of information.

Under these circumstances, there is an increasing need for mechanisms which enable individuals and communities to effectively participate in governmental and/or corporate governance, as well as mechanisms which enable individuals and communities to access appropriate information as a prerequisite to participation in governance. Such mechanisms can be broadly categorized as follows: (i) those that premise actions such as active expression of views or verbalization of opinions/voting by individuals and communities, with an aim to improve or appropriately coordinate those actions; and (ii) those that seek to obtain feedback on governance by appropriately observing the target. Examples of the former include mechanisms that seek to better understand the public consensus by improving voting systems in politics (collective choice theory); mechanisms that seek to improve the processes of careful consideration and discussion that are carried out before views are expressed in order to enable individuals and communities to access appropriate information (deliberative democracy); and mechanisms that seek to better match demand and

supply in economic activities of markets (market design). For the latter, there are engineering approaches that seek to improve interfaces by analyzing user experience.

3 Our proposal : Agile Governance

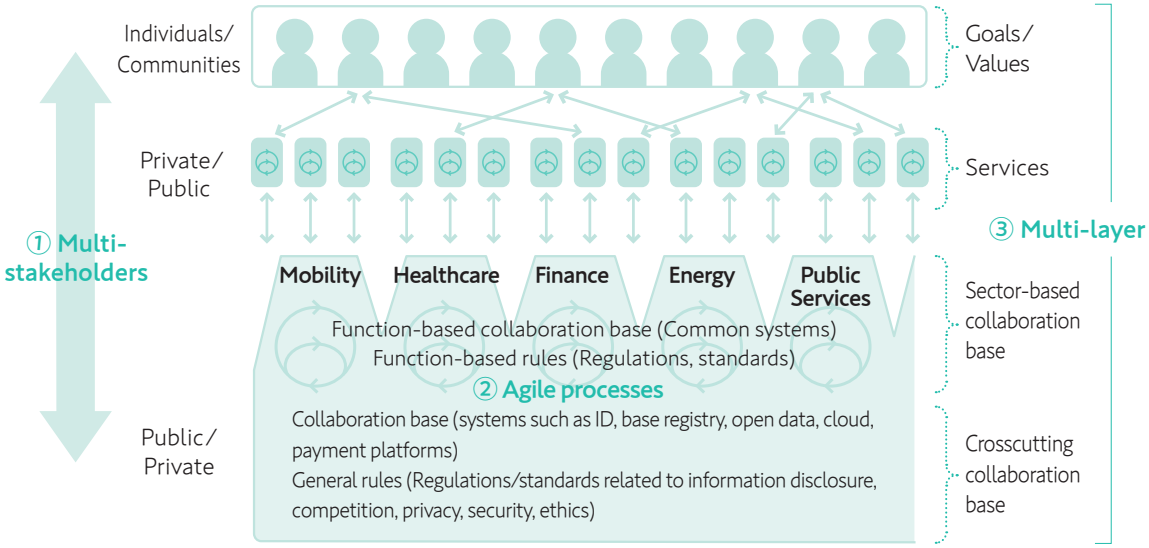
As explained above, governance systems related to regulations, market mechanisms, and participation of individuals and communities will face various limitations in Society 5.0. In order to overcome those limitations and achieve innovative societies, we should boldly review the existing laws, markets, and democratic systems.

In the Governance Innovation reports, we considered those new governance models, and consequently proposed a governance model that consists of the following three elements:

① Actors: Multi-stakeholders
② Method: Agile
③ Structure: Multi-layered

In this Report, governance models with the above three elements are referred to as "the agile governance model." Their characteristics are explained below.

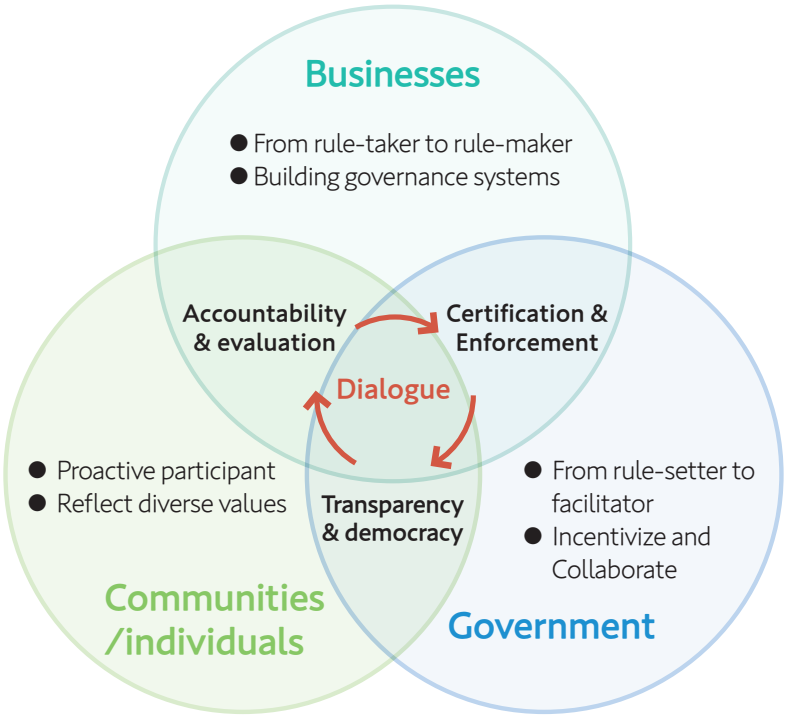
Figure 2 Overview of the agile governance model



3.1 Actors: Multi-stakeholders

With the increased information asymmetry and more diversified values associated with accelerated and complex changes in societies, it is important for various stakeholders such as businesses, the government, and individuals and communities to implement collaborative governance that fosters trust among stakeholders through transparency and dialogue, while each stakeholder voluntary implements governance based on its information and values. To achieve such governance, each stakeholder is expected to play the roles described below.

Figure 3 New Multi-stakeholder approach



① Businesses

In a multi-stakeholder governance model, the central role is played by businesses that contribute to the generation of value through the provision of services and products. Businesses are expected to define their mission, vision, and values, and then actively be involved in the formulation and monitoring of rules and problem-solving. At the same time, they are expected to explain their governance to stakeholders and fulfill their accountability through dialogue.

② Government

The government needs to break away from models in which it single-handedly undertakes the formulation, monitoring and execution of rules, and instead play a facilitator role, by gathering stakeholders to promote discussion so that they can appropriately formulate rules, or by providing incentives to encourage stakeholders, especially businesses, to conduct appropriate monitoring and provide information. Moreover, another important role of the government is to establish the foundation of trust (refer to Section 3.3) that serves as the infrastructure of cyberspace.

③ Individuals and communities

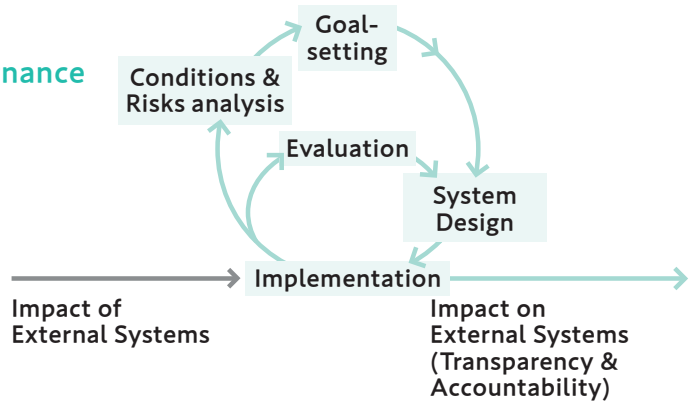
Individuals and communities are expected to contribute to the embodiment of democracy by actively communicating to societies their own values and assessments, not only as passive beneficiaries but also as participants in governance. To do so, it is important for them to actively access high-quality information, understand the interrelationships of different values, and then formulate their opinions from various perspectives.

In practice, collaboration among stakeholders is not limited to the above-mentioned forms but could be achieved in various ways. For example, if the government itself is a provider of a service, the government is expected to deliver on the commitment mentioned in item (2). In addition, collaboration between stakeholders within the same category (e.g., between businesses or between the ministries of the government) is sometimes very important.

3.2 Method: Agile

In societies with increased uncertainty, it is difficult to establish rules or clarify where the responsibility lies in advance. Therefore, societies as a whole need to tolerate failures, and keep learning and swiftly updating governance mechanisms. To achieve this, we presented the model of a double-layered cycles in the Ver. 2 Report.

Figure 4
Cycles of
agile governance



The starting point of this model is the "goal-setting" shown at the top of the figure, and the "conditions and risk analysis" which is a prerequisite to the goal-setting. They are the starting point because in Society 5.0 where technologies and societies change rapidly, we need a model which enables stakeholders to share various "goals", instead of a model in which detailed rules are specified in advance. Each actor of governance (regardless whether public actor or private actor) is expected to set goals to be achieved, and if there is any potential conflict, to balance them.

Based on these conditions and risk analysis and goals, each stakeholder then designs governance systems to achieve the goals under those conditions. The "system" in this context means a comprehensive governance system that includes technologies (such as AI or encryption technology), rules (such as regulations or terms of service) and organizations (such as a department in charge of monitoring or dispute resolution). The 'system' also includes interactions between each component.

In the phase of "implementation", each actor of governance is expected to ensure externally the transparency of the goals, governance systems and implementation status, and to fulfill accountability. As governance in digital societies is founded on the horizontal relationships of multi-stakeholders, it is crucial for each actor to appropriately disclose the concept and status of its own governance.

After the implementation of governance systems, two cycles (the inner and outer cycles) shown in the figure need to be followed. The

inner cycle “evaluates” whether the goals that were initially set have been achieved in the current system, and if the system is insufficient, improvements should be made. This small cycle of “system design -> implementation -> evaluation” is generally the equivalent of PDCA (Plan-Do-Check-Act).

On the other hand, the outer cycle continuously analyzes the external conditions and risks even after the governance system has been implemented, and review the goals as needed. As conditions, risks, and goals keep changing in digital societies, those elements that were previously analyzed need to be reviewed on an ongoing basis. It should be noted that conditions and risks mentioned here include changes not only in society itself but also in external governance systems such as regulations.

For these reasons, we can say that the agile governance model is a model that ensures transparency and accountability, while it incorporates PDCA and keep reviewing the analysis of the conditions and goal-setting that serve as the basis of governance.

3.3 Multi-layer

In order to achieve agile governance by multi-stakeholders as mentioned above, we need a mechanism that enables us to trust the governance implemented by individual actors without examining it every time. To achieve this, it is desirable to establish trust anchors at key nodes of various functions.

This is also closely related to the structure of services in Society 5.0. In Society 5.0, multiple systems that function independent of each other will be dynamically and mutually connected (“system of systems”) and overcome geographical limitations and barriers between industries. For example, MaaS (Mobility as a Service) that connects modals such as railroads, buses and taxis is made possible by connecting individual operation services, on top of crosscutting functions that are broadly classified into (1) identity verification, (2) matching, and (3) payment. Further, if we expand the context to smart cities, a linkage with other business fields such as energy and healthcare will be required.

Scalable and decentralized governance will be achieved by establishing a foundation of trust for key functions of these various layers, and granting a certain level of authentication to actors that access it. One of the characteristics of Society 5.0 is that the interests of individual actors are maximized when multi-stakeholders cooperatively establish such a foundation of trust.

Establishment of a foundation of trust by the Digital Agency

- According to the "Priority Policy Program for Realizing Digital Society" approved by the Cabinet on December 24, 2021, Japan government plans to proceed with initiatives to (1) establish ID/catalog/code to enhance data linkage and search ability, (2) develop key data including base registries (basic social data held by public entities that is referred to in various situations, such as data related to individuals, corporate entities, land, buildings, and qualifications, etc.), (3) reinforce data management so that such data is managed sustainably, and (4) promote open data, in order to advance the distribution and linkage of data.
- In addition, the Priority Policy Program states that the government will promote data linkage in semi-public sectors such as healthcare, education, disaster prevention, mobility, agriculture, and contract/payment, and in the field of autonomous mobile robotics in the contract/payment and mobility sectors, architecture will be designed in the Digital Architecture Design Center.

Priority fields for which implementation of agile governance is considered important

Autonomous driving is operated under a range of systems other than the AI software created and installed by auto manufacturers. Such systems include an online dynamic roadmap that is updated in real time; information provision devices installed on roads (managed by the road administrator); ODD (Operational Design Domain) setting; and regulations and criminal laws such as the Road Traffic Act and Penal Code. As a result, it will require a "multi-stakeholder" approach. Moreover, as unexpected issues may arise in actual operation, it is essential to manage them with an" agile" method. Also, it will be efficient and effective for the society as a whole to use common platforms for functions such as payment and ID functions ("multi-layer").

With the forthcoming popularization of the sharing economy and emergence of delivery drones and flying cars, there will be a need to develop a new transport system for the whole of Japan as a system of systems, and in doing so, it will be increasingly important to apply agile governance.

Part II

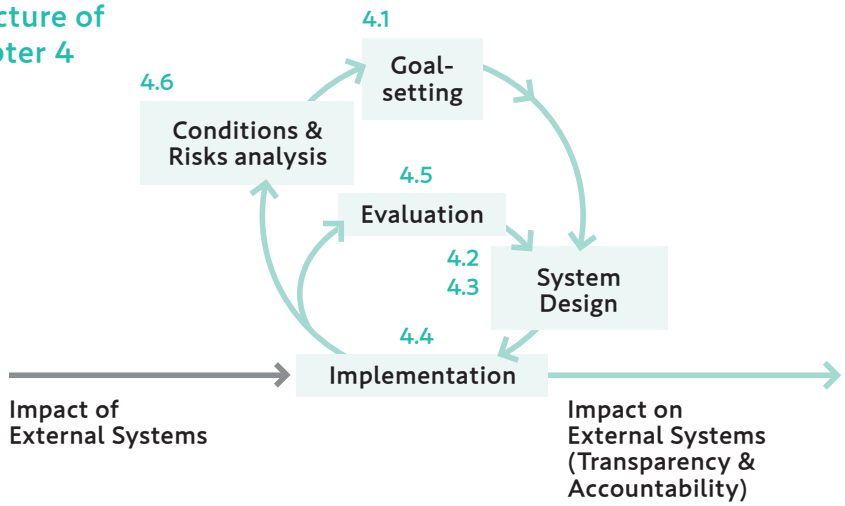
The Process of Agile Governance

In Part I, we presented an overview of agile governance. Based on this, in Part II, we outline the processes for implementing agile governance.

4 The process of agile governance

As described in the Chapter 3, the process of agile governance is difficult to explain in a simplified form as it is implemented in an agile manner by multiple stakeholders through a multi-layered mechanism. For the sake of convenience, in this Chapter, we describe the process based on the agile governance cycles described in 3.2[6]. However, the processes described here need to be understood in light of the other characteristics of agile governance, namely, their multi-stakeholder (3.1) and multi-layered (3.3) nature. In other words, the following processes are implemented by a wide range of actors, including governments, businesses, individuals and communities, as well as platform operators where these actors collaborate with each other (hereinafter referred to as "collaborative infrastructure operators" in this Chapter). In short, the ideal form of governance for Society 5.0 should consist of a setup where these actors run agile governance cycles in a concurrent and multi-layered manner.

Figure 5
Structure of Chapter 4



6) When actually implementing agile governance, there may be many situations where the overall picture of governance gradually becomes clearer by going back and forth through each process (e.g., goal setting and system design), rather than proceeding in the order that they appear in this Chapter.

4.1 Goal setting

The starting point of agile governance is goal setting. In other words, the actors in governance, including governments, businesses, individuals and communities, and collaborative infrastructure operators, should consider the matters described below with respect to technologies and business models that involve conversions of value formation models which are subject to governance (hereinafter referred to as "innovations" in this Chapter. For details, see 1.1).

① Defining stakeholders

There is a wide range of stakeholders who have an interest in innovation. For example, in the case of data utilization businesses, actors may include the following:

Examples: data providers, data processors, service providers, hardware manufacturers, regulators, users, and insurance companies, etc.

② Identifying the impact of innovation on stakeholders

Examples of positive impacts: solutions to various societal issues, improvements to user convenience, and increased efficiency in production activities, etc.

Examples of negative impacts: privacy risks, safety risks, and environmental risks, etc.

③ Sorting out the interrelationships of impacts identified in ② and determining their optimal balance

In setting these goals, the environment and risks that form the premises of the goals should be analyzed. This will be discussed in 4.6.

The hierarchy of agile governance and its diachronic development

Since agile governance is a multi-stakeholder governance system, its goals are hierarchical, depending on the range of stakeholders involved, and there is also diversity in the speed at which it develops. In this sense, agile governance and legacy systems do not

have a contradictory or opposing relationship, but rather a continuous relationship. For example, the higher-order goals, in which all people living in our country are stakeholders, include values supported by the fundamental foundation of the governance system, the Constitution. These higher-order values are seen as something that develop over a long period of time through deliberation among diverse stakeholders, and do not change rapidly even if agile governance is implemented. The "agility" of agile governance is more clearly demonstrated in the layer where these higher-order values are broken down and actually realized. In that layer, the cycle of agile governance rotates over a short period of time by stakeholders that are identified in relation to a specific service to be implemented, such as an autonomous flying drone system, and the higher-order values like people's well-being are realized in the form of access to necessary goods wherever they live. However, the implementation of agile governance will make it easier than it is today for values that are formed and shared among a limited number of stakeholders through trial and error in individual areas to be shared among a wider range of stakeholders as well. As a result, situations where locally formed values evolve into changes and/or additions of higher-order values will occur more frequently than at present. In other words, while the systems are hierarchical, the layers will not be completely separate, but rather will interact with each other, so that the will of the people may be more dynamically reflected in the whole governance system in diachronic terms.

4.2 Overall design of governance (Governance of Governance)

After goals are set, an optimal overall governance architecture to achieve the goals should be designed. This process includes, for example, defining the types of risks businesses are to manage, the points that should be governed by regulations, and the functions for which infrastructures should be built. This is referred to as “Governance of Governance” in the Ver. 2 report.

Governance of Governance

Governance of Governance is a methodology for creating governance for complex and massive systems by organically coordinating, like cogs, the hierarchical and decentralized individual autonomous governance systems that affect each other either directly or indirectly. In this methodology, governance carried out by individual actors become components of the governance system, and perform functions while interacting with each other to create a larger governance system. Specifically, the provider of a product or service to be governed analyzes the social benefits and risks that may arise from the product or service, takes optimal measures based on appropriate cost-benefit analysis, and in taking

such measures, realizes governance on a larger scale by designing mechanisms that encourage cooperation with other stakeholders. This methodology aims to properly manage the risks that arise in a system of systems, where systems themselves constitute components of a larger system, so that society is able to fully enjoy its benefits. In other words, by designing a governance system so that it is highly coordinated with autonomous decentralized governance in a way that corresponds to the architecture of system of systems (see 1.2.2), an optimal balance between innovation and risk can be achieved for the system as a whole.

For example, Governance of Governance could be designed as follows:

① The level of goals that are to be ultimately achieved is prescribed by regulations.

② The methods for achieving the goals in concrete terms are left to the voluntary efforts of businesses.

③ Market participants, and individuals and communities continuously assess the actions of the above businesses.

④ For certain cooperative areas, infrastructures that serve as foundations of trust are built through public-private partnerships.

The Governance of Governance should be designed considering the relevant risks and values. For example, in some cases with extremely high risk of accidents such as nuclear power plants, detailed rules may be provided by regulations.

It would also be possible to realize policy objectives, not through regulations, but through institutional guarantees of information disclosure to market participants and through the availability of substantive choices.

In designing Governance of Governance, we should analyze, without being bound by individual interests, the types of goals that can be achieved through technologies, rules, and organizations that are operated by stakeholders.

The discussions should be conducted in a neutral manner, but not only the government but also businesses are expected to lead it. Considering that private sector actors have more information on innovation, the businesses themselves, as well as associated individuals and communities involved in proposing new technologies and business models, should actively take the lead in designing the overall governance for implementing innovations in our societies, and greater importance will be placed on the roles of government in promoting these efforts and being involved as a stakeholder.

4.3 Designing individually specific governance systems

Once the overall picture of governance has been sorted out, the specific design of each element should be carried out. Below are some examples of elements to be considered from the perspectives of [1] governance by technology, [2] governance by rules, and [3] organizational design.

4.3.1 Governance by technology

In the governance of Society 5.0, where technology will have a decisive impact on people's decision-making and behavior, it is important to take a "by design" approach which defines how risks are to be reduced through technology.

While the private sector will be the main player in designing technologies for individual services, the designing and operation of foundational infrastructure systems may potentially be performed by government and public institutions.

(1) Technological methods for minimizing the risks posed by innovation

Examples: encryption, distributed ledger systems (blockchain), terminal processing, cloudification, real-time data utilization, AI-based anomaly detection, federated learning etc. (see 1.2.3)

Example of governance through technological methods: Blockchain

Provided that their overall incentives are designed well, decentralized management of records using public blockchains, as typified by Bitcoin, will continue to be maintained regardless of whether organizations such as governments and businesses continue or cease to exist. In addition, the use of smart contracts, which are transactions executed on programs based on blockchain technology, prevent situations such as where someone is not paid for goods they have delivered, or is unable to receive goods for payments they have made. In this way, it can be said that blockchain technology is an example of governance by technological means that does not require an organization to take charge of governance.

(2) Developing infrastructure systems as a starting point for trust

As described in 3.3., in areas where public trust should be

established, it is important that a system that serves as the foundation for trust in society as a whole is developed by multiple stakeholders.

4.3.2 Governance by rules

In order to govern innovation, certain agreements (rules) need to be established among stakeholders. This is the process of modifying or designing new rules in situations where reasonable conclusions cannot be reached from existing rules, or there are no existing rules. Rules have many layers, ranging from internal bylaws that are voluntarily established by businesses or collaborative infrastructure operators, to contracts entered with third parties, standards agreed upon by multiple parties, and regulations that are enforceable by the state. The type of agreements to be made at each layer needs to be considered in the design of Governance of Governance (see 4.2).

(1) Voluntary rules prescribed by service providers

Examples: corporate rules, industry association rules, and intragovernmental rules, etc.

(2) Rules between service providers and users

Examples: contracts, terms of use, and privacy policies, etc.

(3) Standards and certifications

For certain methods of governance, trust may potentially be secured by developing standards, and granting third-party certification for these.

Examples of standards and assessment regimes related to governance

- Legal Risk Management (ISO 31022:2020[7])

  This standard was issued by the International Organization for Standardization (ISO) in May 2020 and was the world's first international standard dedicated to "legal risk management." It provides a "systematic and consistent approach" to the management of

7) https://webdesk.jsa.or.jp/books/W11M0090/index/?bunsyo_id=ISO+31022%3A2020

legal risks. This standard is aligned with ISO 31000:2018 (JIS Q 31000:2019), which is a generic framework for risk management.

- **Information system Security Management and Assessment Program (ISMAP[8])**
  This is a program where cloud services that have been verified to meet the security requirements of government agencies and the like are registered on the Cloud Service List. In principle, government agencies and the like are to procure cloud services from services registered on the Cloud Service List. The information security audit framework is used in the security assessment process. Only those auditing institutions that have been verified to meet the requirements specified for this program, and have been registered in advance in the list of audit institutions published in the program are allowed to perform audits under this program.

(4) Laws, regulations and sanctions

The goal of laws, regulations, and sanctions is not only to impose specific obligations to act or prohibitions on actions, but also to incentivize people to commit to governance. See 6.1 for the specific design of such legal systems.

(5) Rules under substantive law

Properly designed civil transaction rules, and rules on liability and sanctions can protect the safety of participants in transactions, encourage the creation of value for society, and incentivize businesses to implement proper governance.

Examples: protection of digital assets, data usage privileges, protection against unauthorized use, and design of civil liability, etc.

Considerations on digital assets and data usage privileges

The following studies are being conducted in Japan to develop civil and criminal rules for Society 5.0.

- With respect to legislation regarding the protection of digital assets, the development of experimental programs for full-fledged discussions is underway[9], where financial regulations for electronic record transfer rights (STO tokens) and crypto assets have been

8) https://www.ismap.go.jp/csm

9) Special provisions have been established in the Act for Partial Revision of the Act on Strengthening Industrial Competitiveness, etc. (Act No. 70 of 2021 [Reiwa 3]). https://www.meti.go.jp/policy/jigyou_saisei/kyousouryoku_kyouka/shinjigyo-kaitakuseidosuishin/saikenjoto.html

defined in the Financial Regulations Act[10], and programs provided with third-party perfection requirements — such as for when records are made on blockchains, etc. — that meet certain requirements are implemented in sandbox programs.

- With regard to data use, the sub-working group[11] on the implementation of rules for handling data on the Digital Agency's platform carried out discussions on how to organize data handling rules in a form that incorporates agile governance. In addition, the World Economic Forum Centre for the Fourth Industrial Revolution Japan, with the participation of the Data Society Promotion Council and others, has been carrying out discussions that take in to consideration, among other matters, the standardization of data usage privileges on platforms[12]. In addition, amendments to the Unfair Competition Prevention Act now provide protection against unauthorized acquisition and use of "limited provision data[13].
- With respect to the establishment of users' rights related to systems and AI activities, and the development of regimes for damage compensation, the Digital Principles presented by the Digital Extraordinary Administrative Advisory Committee (see 5.1.3) aim to develop a legal liability regime that is combined with insurance regimes and other means[14].
- Discussions on the forms that criminal law should take in the digital age were carried out at the Regulatory Reform Promotion Council where the agenda included criminal law and innovation, and the organizing and enforcement of modern systems[15].

4.3.3 Organizational design

In order to implement agile governance through the technologies and rules described above, it is necessary to design organizations that allow these to function properly.

(1) Corporate organizations

Corporate organizations should change in order for businesses to

10) See the Act for Partial Revision of the Law Concerning Funds Settlement, etc. for the Purpose of Addressing Diversification of Financial Transactions Accompanying the Development of Information and Communications Technology. (Proposed on March 15, 2019 and established on May 31, 2019) https://www.fsa.go.jp/common/diet/198/02/gaiyou.pdf
11) https://www.digital.go.jp/meeting/posts/3zmv1HyO
12) https://www.weforum.org/agenda/2022/01/data-trading-stock-exchange/
13) Overview of the 2018 Amendment to the Unfair Competition Prevention Act (Limited Provision Data, Technological Restriction Measures, etc.), Intellectual Property Policy Office, Ministry of Economy, Trade and Industry https://www.meti.go.jp/policy/economy/chizai/chiteki/H30nen_fukyohoshosai.pdf
14) Digital Agency, "Structural Reform in the Digital Age and the Direction of Digital Principles" (December 2021), p. 4. https://cio.go.jp/sites/default/files/uploads/documents/digital/20211222_meeting_extraordinary_administrative_research_committee_01.pdf
15) Regulatory Reform Promotion Council, "Criminal Law in the Digital Age" (May 18, 2021) https://www8.cao.go.jp/kisei-kaikaku/kisei/publication/opinion/210518honkaigi02.pdf

play a central role in agile governance. In particular, their legal and compliance departments, which should be well versed in legal and other forms of rules as well as legal risks, will be expected to strengthen their ties with management and business units (including teams that create products and services) to evolve their businesses into a "designer of rules." It will not be enough for legal departments to simply provide contract reviews. Organizational structures and legal technologies that enable "managerial and preventive legal services" are likely to become increasingly important[16]. For example, organizational designs that are equipped to identify, analyze, and assess legal risks, based on which they are then able to address these risks (see ISO 31022) will aid in implementing agile governance.

(2) Government organizations

In Society 5.0, where social structures become increasingly complex, and the goals to be pursued and the balance between different goals constantly change, the government should design the interrelationships and balance between organizations associated with specific industrial fields or legal purposes (a whole-of-government approach).

Examples of cross-sectoral organizations in government

One policy area in which cross-sectoral and diverse values should be considered would be the area of realizing fair competition. In 2019, in order to promote competition and innovation in the globally and rapidly changing digital marketplace, the Government of Japan established, within the Cabinet, the Headquarters for Digital Market Competition responsible for assessing the digital marketplace, planning and drafting competition policy, and carrying out general coordination with relevant domestic and international organizations for the purpose of swift and effective implementation of competition policy. In order to carry out cross-sectoral and cross-ministerial examinations of competition policies for the digital market taking into account the interests of ensuring privacy and security, a conference body consisting of experts in law, economics, information engineering, and systems theory, etc., was formed under the Headquarters. The secretariat

16) See "Seven Action Guidelines for Managers to Fully Utilize their Legal Functions (November 19, 2019)," Ministry of Economy, Trade and Industry https://www.meti.go.jp/press/2019/11/20191119002/20191119002-3.pdf

also consists of knowledgeable administrative officials from the General Secretariat of the Fair Trade Commission, the Ministry of Economy, Trade and Industry, and the Ministry of Internal Affairs and Communications who are in charge of digital-related policies.

(3) Public-private partnership organizations

In order to realize agile governance, the key is to design areas and organizations where players from both the public and private sectors are able to exercise their expertise and strengths while collaborating to achieve a common goal. In doing so, it is necessary to design the collaborative areas based on balancing the appeal for participating businesses with overall optimization, and to develop a structure for moving the project forward.

Examples of Public-private partnership organizations

- In 2018, three parties, the World Economic Forum, the Ministry of Economy, Trade and Industry, and the Asia Pacific Initiative established the World Economic Forum Centre for the Fourth Industrial Revolution Japan. The Centre is driving forward activities to build technology governance in various areas such as agile governance, data, smart cities, healthcare, and mobility through a multi-layered mechanism that is run by multiple stakeholders.
- In May 2021, the "Act for the Protection of Consumers who use Digital Platforms" was promulgated in order to promote the appropriateness of transactions carried out on digital platforms, and the resolution of disputes. The Act stipulates that a "Public-Private Council for Digital Trading Platforms" is to be established, and "Preparatory Meetings for the Public-Private Council for Digital Trading Platforms" to prepare for the Council's launch have been held since November 2021. The Preparatory Meetings are attended by multiple stakeholders, including organizations membered by digital trading platform providers, consumer groups, and relevant government agencies to discuss guidelines related to measures to be taken by digital trading platform providers, as well as matters such as how the Public-Private Council for Digital Trading Platforms should be run in order to launch the Council smoothly.

(4) Improving organizational environments

A basic premise for implementing agile governance and making it an effective method of governance in Society 5.0 is that we should ensure that members of each can frankly share their opinions and experiences, and raise issues.

Psychological safety

Psychological safety refers to the state of being able to express one's opinions openly in an organization or team without fear of being negatively assessed by superiors or retaliated against for expressing one's opinions (i.e., interpersonal risk).[17] Not only is securing psychological safety important from the perspective of understanding, in a timely fashion, the actual situations in a rapidly changing social and business environment, and of running risk management and governance systems flexibly and with agility, but it is also crucial from the perspective of promoting innovation in the sense that it builds an environment where people are able to think flexibly and actively share their opinions without inhibitions.

So far, we have discussed the design of governance systems from the perspectives of technology, rules, and organization. In practice, they should be combined to form an integrated governance mechanism.

4.4 Stakeholders' operation of governance systems

After specific governance systems (i.e., technologies, rules and organizations etc.) are designed, each stakeholder should implement them. In doing so, it is important to put the following points into practice.

(1) Monitoring

Recent years have seen rapid advances in technologies that can be used for monitoring. For example, the Internet of Things (IoT) which connects a wide variety of "things" to the network have made it possible to acquire data in real time which conventionally could only be acquired in fragments. Rather than relying on conventional modes of monitoring performed solely by humans, actors in governance should consider using such real-time data to enable more efficient and precise monitoring.

In addition, by recording the results of monitoring, verifiable evidence can be referred to when problems occur, and this can be useful in making future updates in governance.

17) For more information on psychological safety, see "The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth" by Amy C. Edmondson.

(2) Disclosure to and dialogue with stakeholders

In order to implement decentralized agile governance, it is essential for each actor in governance to disclose the appropriate amount and quality of information about governance to stakeholders and to continue to have interactive communication. In doing so, it is important to pay particular attention to the following points.

① What types of information should be disclosed and to whom (e.g., about algorithms)
② The balance between disclosure and other values (data governance, privacy, intellectual property rights, trade secrets etc.)
③ The quality of dialogue (e.g., ensuring substantive agreement to privacy policies)
④ The methods by which stakeholders build consensus
⑤ Values to be ensured regardless of whether consent is required or not

(3) Ensuring the availability of remedies

In agile governance, which is based on the premise that our world is uncertain, it becomes more important than ever to ensure that remedies are available for those stakeholders who are adversely affected. To this end, actors in governance should provide access to dispute resolution procedures to ensure prompt and fair remedies. From the perspective of improving accessibility, these dispute resolution procedures should preferably be provided online (ODR: Online Dispute Resolution).

① Complaints-handling by service providers
② Alternative Dispute Resolution (ADR) provided by a neutral third party
③ Judicial remedies (courts)

In addition, it is important to consider developing liability rules and insurance mechanisms together with stakeholders to enable prompt remedies for those adversely affected.

4.5 Assessments and learning

One of the key points of agile governance is to assess the outcomes

of the operations of governance systems and draw on these to perform quick updates. Therefore, it is essential to have multiple stakeholders to assess the outcome of governance and check whether the goals (see 4.1) were realized by the current governance systems.

(1) Determining assessment methods

Methods for assessing governance systems should be collaboratively created and determined based on multi-stakeholder understanding and discussions on the following topics.

① What are the areas where we need trust?
Examples: information reliability, process reliability, etc.

② How robust should the trust be?
Examples: self-declaration, cross-checking, third party assessment, etc.

③ What methods and approaches are appropriate for securing trust?
Examples: voluntary checking, peer reviews, internal audits, external audits, third party certification, third party rating, expert declarations, user declarations, internal/external reports, etc.

Establishing an information hub to enable post-event verification

In order to enable timely assessments of an entire governance system through the accumulation and sharing of information on accidents and near-misses, it is important to introduce a mechanism that allows the aggregation and sharing of reliable data on the status of governance operations in a single location (data "commons"). In doing so, the incentives of all stakeholders will be taken into consideration in the design of the data sharing mechanism.

For example, requiring service providers to have insurance and make insurance companies aggregate and share data on the occurrence of accidents involving products and services will enable effective monitoring, ensure the soundness of victim relief in the event of accidents, and prevent business operators from implementing excessive risk-avoidance measures.

Another potential avenue would be to establish a third-party certification body, develop certification criteria and procedures for certification, and make the sharing of data and

information a requirement for certification, thereby making the certifying body function as an information hub.

(2) Determining assessment criteria

In Society 5.0, where the societies and goals are continuously changing, it is often difficult to quantify goals of governance in a uniform manner. When considering the assessment criteria, the following points are particularly important.

① Assessment criteria should appropriately reflect the set goals.
② Standards which are applied to the assessment process should be clearly delineated.
③ Standards for disclosure of the scope, subject, method, timing, and results of assessments should be clearly defined.
④ The assessment criteria should be updated in a timely manner reflecting the changes in societies and goals.
⑤ Stakeholder involvement should be ensured in all of the above processes.

(3) Prompt update of governance systems

With regard to issues identified in governance systems, it is important that multiple stakeholders engage in a co-creation process to reach solutions which involves not only pointing out issues, but also understanding, discussing, and sharing information on the scope of the impact that these issues have, the actors who are to carry out solutions, and how these solutions are to be carried out.

Multi-stakeholder assessments prescribed in the Digital Platform Transparency Act

The Act on Enhancing Transparency and Fairness on Specified Digital Platforms, which came into effect in 2021, requires regulated providers of specified digital platforms to disclose information on trading conditions and such, develop voluntary procedures and systems, and to submit a self-assessment report on the measures taken and an overview of their businesses. The Minister of Economy, Trade and Industry is to conduct a review of the platform's operation based on the report, while also listening to input from business partners, consumers, and academics, etc., and publish the results of the assessment. Based

on the results of the assessment, specified digital platform providers are required to voluntarily work towards improving the transparency and fairness of the platforms they operate. These efforts will not only support the implementation of a cycle of agile governance at digital platform operators for establishing fair trading environments, but also contribute to the practice of agile governance in the government in the sense that they will lead to the continuous review of government ordinances and guidelines.

4.6 Reanalyzing the environment and risks, and redefining goals

As described in 2.1, Society 5.0 is a society in which the environment, risks, and goals rapidly change in relation to technology. Therefore, the goals discussed in the process described in 4.1, as well as the environment and risks that form the premise of these goals should be revisited periodically or as conditions require. It is desirable that information on these changes are promptly shared among stakeholders.

Reassessing risks and goals provided in international standards for information security management

ISO 27001 is an international standard for establishing, implementing, maintaining, and continuously improving the necessary information security management system (ISMS). ISMSs must undergo periodic risk assessments and reviews of their management systems. These reviews must take into account changes in external and internal issues related to the ISMS. The information security objectives themselves should also be updated as necessary, taking into account the applicable information security requirements and the outcomes of risk assessments and risk countermeasures. As we see here, the process of constantly updating governance to take into account the outcomes of changes in the external environment and risk countermeasures can be said to be a mechanism that is similar to the agile governance cycles.

Part III

Institutional Design to Promote Agile Governance

In Part III, we discuss, with specific examples, how to build collaborative governance systems (Chapter 5) and how to design stakeholder incentives to enable all stakeholders to implement agile governance (Chapter 6).

5 Building collaborative governance systems for stakeholders

In order to implement the agile governance process discussed above, we will need multi-stakeholder collaboration on goal setting, system design, and assessments, etc. Below, we discuss some examples of mechanisms that enable stakeholders associated with government and business to be involved in governance.

5.1 Ensuring opportunities for participation in government policy making

5.1.1 Data accessibility

As a precondition for the involvement of individuals and communities in government policy making, it is important for each person to have access to sufficient quality and quantity of information. As such, it is important for the government to take the lead in promoting so-called open data — reliable data that can be used freely by anyone for secondary purposes within the scope of certain rules.

Open data initiatives by Japan government

With the enactment of the Basic Act on the Advancement of Public and Private Sector Data Utilization in 2016, we are seeing an acceleration in national and local government initiatives regarding open data. Currently, the "Data Catalog Site[18]," an information portal site developed and operated by the Digital Agency, is open to the public. The portal consolidates public data that are freely available to everyone and examples of their use. In addition, an inventory of data held by government agencies was conducted, a list of available public data has been made public, and local governments receive support to advance their development of open data.

5.1.2 Involvement in regulatory design

To ensure that regulations do not hinder innovation, it is very important to create opportunities for dialogue between regulatory

18) https://www.data.go.jp/

authorities and those who seek to pursue innovation. Currently, the following programs are available in Japan.

① Regulatory sandbox

This is a program based on the Act on Strengthening Industrial Competitiveness where, in situations where the practical application of new technologies such as IoT, blockchain, and robotics, or the realization of new business models such as platform-based businesses and the sharing economy is difficult under current regulations, innovators can apply to perform a demonstration certified by the regulating agency. Information and data obtained from the demonstration is used to potentially bring about regulatory revisions.

② Gray zone elimination program

This is a program based on the Act on Strengthening Industrial Competitiveness where, in situations where businesses are unclear on the scope of application of current regulations, they are able to confirm in advance whether or not regulations apply to their specific business.

③ New business special measures program

This is a program which, based on proposals for special measures made by businesses who seek to engage in new business activities, allows special regulatory measures to be applied on a "company-by-company" basis, provided that safety and other factors are ensured.

5.1.3 Involvement in policy making

With the advancement of digital technology, we can now diversify the ways in which individuals and communities participate in political decision-making. It is important to go beyond the traditional approaches of "one person, one vote" or "lobbying by those with power" to approaches that more substantively reflect the voices of stakeholders in public policy.

Methods that combine citizens' voluntary participation with technology to resolve social issues and problems in government services are referred to as Civic Tech. Thanks to advancements being made in digital technology, this new form of citizen participation is already being designed and put into practice in many regions in Japan and abroad.

As an example, in October 2020, Code for Japan, a general incorporated association working to promote Civic Tech, and Kakogawa City in Hyogo Prefecture signed an agreement to promote smart cities, and became the first in Japan to introduce Decidim, a digital platform for citizen participation. Decidim is an online tool (free software) for gathering the views of diverse citizens' online, consolidating discussions, and connecting them to policies to realize participatory democracy. Decidim is already being used in locations such as Barcelona and Helsinki.

Digital Extraordinary Administrative Advisory Committee and Digital Principles

In order to vigorously move forward with integrated studies and implementation of digital reform, regulatory reform, administrative reform, and other cross-sectoral issues related to structural reform the "Digital Extraordinary Administrative Advisory Committee" chaired by the Prime Minister was established in November. The Commission outlines the following five Digital Principles[19].

① **End to End Digital Execution and Automation**

Procedures should not require written forms, in-person filings, or hands-on checks by officials at designated physical places; they should be executable digitally and, if possible, automated. The goal is end-to-end digital processing, both within the government and between the government and its constituents, suppliers and other stakeholders.

② **Agile Governance**

Regulations should focus on desired end results—the risks to be mitigated, or the performance to be achieved—rather that stipulating rigid and uniform processes and procedures. Regulatory supervision should make full use of available data, and be open to continuous updates and improvements.

19) Cabinet Approval "Priority Plan for the Realization of a Digital Society," of December 24, 2021, p. 21. The "agile governance principles" referred to in these principles can be said to be those that focus on regulation-related processes (narrow sense) within agile governance in the broad sense discussed in this report.

③ Public-private Partnership

Government should make use of private-sector innovation to improve user experiences by, for example, adopting user interfaces and other technologies developed by private companies.

④ Interoperability

Systems should be interoperable, so that national and local governments, quasi-public entities, and the private sector can share data smoothly.

⑤ Infrastructure sharing

The public and private sectors should share a common basic digital infrastructure for things like digital IDs and base registries. Procurement specifications should be standardized to avoid siloing among different agencies, levels of government and other entities that provide public services.

5.2 Ensuring opportunities for dialogue on corporate governance

The importance of corporate transparency and dialogue with stakeholders is also emphasized in the Corporate Governance Code (see 6.1.2). Multiple empirical studies have been conducted that show a positive correlation between enhanced disclosure and increased corporate value. Corporate managers should proactively engage in disclosure and dialogue with the understanding that designing and operating governance based on dialogue with stakeholders will lead to gaining the trust of stakeholders and, ultimately, increasing corporate value.

Efforts by businesses to improve the quality of private communication

In recent years, instead of simply publishing their privacy policies, businesses have been taking the effort to explain their policies in an easy-to-understand manner, and some have set up pages explaining how they handle data and the security measures they take. The "Corporate Privacy Governance Guidebook for the DX Era [20]" developed by the Ministry of Economy, Trade and Industry shows what businesses need to work on when establishing privacy-related governance in order to gain the trust of their stakeholders.

The government will be expected to formulate guidelines and other tools to guide such disclosure based on stakeholder input.

20) https://www.meti.go.jp/press/2021/02/20220218001/20220218001.html

European Commission's guidelines on the disclosure of algorithms

The EU's "Regulation on promoting fairness and transparency for business users of online intermediation services" requires applicable online platforms to disclose the main parameters determining ranking and the reasons for the relative importance of those main parameters. In response to this, the guidelines published by the European Commission provide general principles for the selection of main parameters and introduce examples of specific items to be disclosed[21].

5.3 Knowledge sharing across public and private sector boundaries

5.3.1 Educational opportunities and exchanges of human talent

In order to implement agile governance, individuals with wide ranging expertise such as in technology, rule making, and organizational management should work together to build a governance system. To this end, it is important to ensure educational opportunities for individuals to deepen their expertise and to expand their learning to other areas of expertise. In addition, in order to implement multi-stakeholder governance, it is important for each individual to understand the positions of various other stakeholders, and the key to this would be to carry out exchanges of human talent across public and private sector boundaries.

5.3.2 Ensuring opportunities for interaction between stakeholders

In order to implement multi-stakeholder agile governance, it is desirable to have events organized by various actors where different stakeholders can come together to exchange policy ideas and generate actions towards implementation.

Public-private exchanges in the field of RegTech

In the field of RegTech, where technology is used for regulatory compliance, there are many examples of multi-stakeholder hackathons (events where engineers and designers,

21) Article 5, Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services. COMMISSION NOTICE Guidelines on ranking transparency pursuant to Regulation (EU) 2019/1150 of the European Parliament and of the Council 2020/C 424/01

etc., come together to form teams to develop applications and services on a specific theme within a specific period of time). For example, the UK's Financial Conduct Authority (FCA) has been carrying out initiatives that incorporate the hackathon format since 2016 as a new multi-stakeholder approach and an alternative to traditional roundtables and conferences in solving regulatory issues. This approach was also brought to the international policy-making arena in 2020 when the BIS Innovation Hub and the Kingdom of Saudi Arabia co-hosted the G20 TechSprint 2020[22 23]. In the financial industry, it is becoming standard practice to operate agile systems to restructure markets and governance by interconnecting such TechSprint with a digital sandbox that provides innovators with a place to conduct demonstration experiments, and inter-relating these to a regulatory sandbox where demonstration experiments on regulations are conducted.

6 Designing incentives for implementing agile governance

It is necessary to design appropriate incentives in order to have all stakeholders practice agile governance. The following are specific examples of potential mechanisms.

6.1 Designing incentives for businesses

Incentives for businesses to conduct proper governance include regulatory sanctions as well as their aversion to risks such as compensation for damages and loss of social reputation when a problem occurs, and damage to their market reputation (especially from investors in financial markets).

6.1.1 Integrated reform of regulations, sanctions, and responsibilities

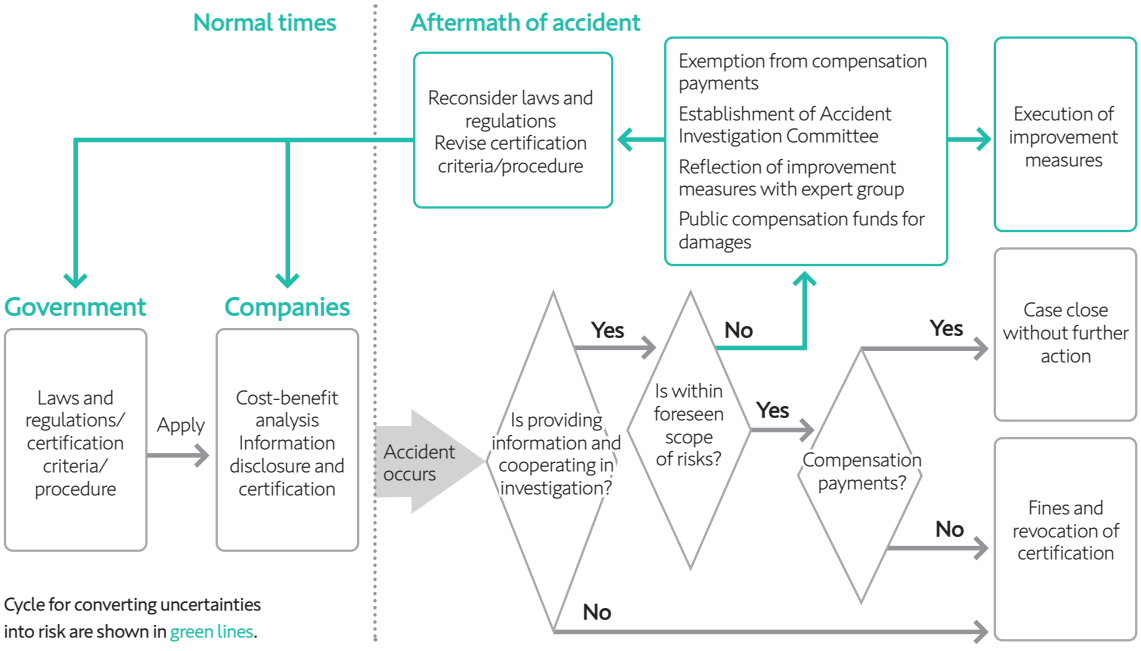
The current systems of sanctions and damage compensation are based on whether there have been any violations of certain obligations stipulated by official authorities, such as the obligation to act in accordance with regulations or the obligation to prevent outcomes

22) https://www.fca.org.uk/publication/research/fostering-innovation-through-collaboration-evolution-techsprint-approach.pdf
23) https://www.bis.org/hub/g20_techsprint.htm. The microservices and datasets required for prototyping the solutions were provided by APIX (API Exchange, also known as Digital Sandbox) co-founded by Singapore's MAS, IFC, and other entities, and run by the ASEAN Financial Innovation Network. This G20 TechSprint was carried over to the 2021 G20 in the following year, with the central bank of the host country, the Bank of Italy, the BIS Innovation Hub and other entities co-hosting the G20 TechSprint 2021 (https://www.techsprint2021.it/).

that represent liabilities for negligence. Therefore, rather than designing and implementing optimal risk management based on cost-benefit analyses of the risks posed by the products and services they provide, in the eyes of businesses, the best way to avoid risk is to formally comply with regulations and refrain from conducting additional forms of risk management all together. In other words, there is lack of incentives that are designed to encourage businesses to voluntarily design and implement optimal governance.

Taking this point into consideration, with respect to incidents associated with products and services with high degrees of uncertainty, a so-called strict liability regime can be introduced so that businesses themselves are incentivized to conduct their own cost-benefit analysis of any foreseen risks associated with their products and services. Meanwhile, a simplistic introduction of the strict liability system may cause businesses to take excessive avoidance actions for unforeseeable incidents and therefore inhibit innovation. Therefore, a sanctioning system similar to a Deferred Prosecution Agreement (DPA) accompanied by an indemnity system can be introduced to design a system that provides incentives for carrying out ongoing rebalancing of innovations and risks[24].

Figure 6
Sanctioning systems that provide incentives for carrying out ongoing balancing of innovations and risks



24) See "New Governance Systems and the Role of Sanctions in Society 5.0" (published in the March 2022 issue of Horitsu Jiho)

Under this mechanism, (1) strict criminal liability is to be stipulated for stakeholder(s) associated with incidents, and in the event of an incident, (2) if it is a manifestation of a foreseeable risk, the charged is to provide information and compensation for damages. (3) If it is a manifestation of an unforeseeable uncertainty, the charged is to provide information, cooperate in investigations into the incident, and provide a pledge to make improvements to their product/service and organization, based on which prosecution is to be deferred. (4) In the case of non-cooperation or non-fulfillment, substantial fines are to be imposed through prosecution, accompanied by strict administrative sanctions, such as revocation of product/service certification. On the other hand, from the perspectives of ensuring relief for those adversely affected by incidents, and of preventing business operators from taking excessive risk-avoidance measures given the strict liability regime, it is also important to establish insurance systems, public damage compensation systems, certification systems, and an information hub (see 4.5).

By coordinating autonomous decentralized governance to a high degree through integrated reforms of regulations, sanctions, and responsibilities as described, we may be able to achieve an optimal balance between risks and innovations that occur in complex systems.

6.1.2 Assessments by markets

The Corporate Governance Code has traditionally taken a principles-based "comply 'or' explain" approach, but in practice, there were many cases where organizations were dodging giving explanations by complying with the principles only as a formality[25]. However, in order to realize responsible governance by the providers of innovation, we should take a "comply 'and' explain" approach where businesses declare their own commitments regarding various goals and then appropriately disclose them to the public.

In practice, an increasing number of businesses are setting goals and

25) According to the Ministry of Economy, Trade and Industry, "Follow-up to the CGS Guidelines (Practical Guidelines for Corporate Governance Systems) (CGS Study Group [Phase 2], 3rd Meeting, Secretariat Materials) Appendix" (p. 58) (May 2018), 50% of the companies that responded to the survey stated that they are "considering complying (implementing compliance) as much as possible rather than explaining (explaining the reasons for not implementing)," and 28% of the companies stated that they are "complying (implementing compliance), but only formally, and some of the measures have yet to be substantively implemented."

targets in non-financial information categories, and actively disclosing them on their own initiative. We are seeing an increasing number of examples of businesses publishing consolidated reports based on frameworks such as the GRI Standards[26], an international framework for disclosure, in which they disclose their reasons for selecting their key issues, evaluation indicators, as well as targets and numbers in the form of associated KPIs for issues such as climate change, quality responsibility, occupational safety and health, human rights, diversity, and human resources development. This is because increasing number of corporate executives are recognizing that proactive disclosure of non-financial information regarding their impact on society, and dialogue with stakeholders are precisely what will help them enhance their corporate value.

To promote this trend, the government should develop disclosure systems while paying due respect to international frameworks to support similar efforts.

Discussions on the disclosure of non-financial information in Japan

In the context of corporate governance, the development of corporate information disclosure systems has traditionally focused on financial information. In recent years, however, discussions on the disclosure of non-financial information are becoming more active.

The Corporate Governance Code revised in June 2021 states that listed businesses should appropriately disclose information about their sustainability initiatives, and investments in human capital and intellectual property.

It also states that businesses listed on the Tokyo Stock Exchange's Prime Market should enhance the quality and quantity of their disclosure regarding the impact that climate change-related risks and opportunities have on their business activities and earnings based on internationally established disclosure frameworks such as TCFD [27] or other equivalent frameworks.

In September 2021, the Disclosure Working Group of the Financial Services Agency (FSA) began a study on disclosure associated with sustainability (climate change, investment in human capital, ensuring diversity, etc.) in order to encourage businesses to make efforts of this kind in disclosing non-financial information. Developing a framework for the disclosure like this will enable market participants to more appropriately assess the state of governance at each company.

26) Global Reporting Initiative Standards. A framework for reporting entities to report on their economic, environmental, and social impacts (including positive and negative impacts, external impacts, and impacts received from external sources), and explaining their contributions to sustainable development.
27) Task Force on Climate-related Financial Disclosures.

6.1.3 Providing tools to help implement agile governance

In order to help businesses to implement agile governance, it is important to develop guidelines that businesses can refer to. These guidelines should be updated in an agile manner based on reviews by multiple stakeholders.

For example, the following guidelines can be considered to be sources that promote agile governance frameworks.

① Area-specific guidelines and toolkits for businesses

Examples: Governance Guidelines for Implementation of AI Principles[28], Corporate Privacy Governance Guidebook for the DX Era[29]

② Governance guidelines for joint public-private platforms

Example: Guidance for Implementing Data Handling Rules in Platforms[30]

6.2 Designing incentives for government

Governments will be able to gain more trust from the public if they are able to promote facilitation, regulatory reform, and system building suited for Society 5.0 through the practice of agile governance. Furthermore, as a result of involving the private sector in policy formation during the process of agile governance, the private sector may come to contribute to policy making and rulemaking, as opposed to a taking a passive mindset. This will further promote government facilitation, regulatory reform, and system building which will result in more trust from the public. This virtuous cycle will be a good incentive for government.

In order to create this virtuous cycle, the objectives of government will need to be revised. In other words, it is important to clearly define

28) https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20210709_9.pdf. Other guidelines for AI include 1) Guidelines in the form of questions in the TRUSTWORTHY AI ASSESSMENT LIST, ETHICS GUIDELINES FOR TRUSTWORTHY AI (2019): p28-33, EC HLEG AI (High Level Expert Group on AI), and 2) Guidelines for Quality Assurance of AI-based Products and Services (QA4AI) 2021.09 Edition, Consortium of Quality Assurance for Artificial-Intelligence-based products and services.

29) https://www.meti.go.jp/press/2021/02/20220218001/20220218001.html

30) https://public-comment.e-gov.go.jp/servlet/PcmFileDownload?seqNo=0000227587

that the raison d'etre of government is not only to protect and coordinate the specific interests, but to take proactive actions to create better environment for innovation. The government's compensation scheme, organizational structure, and evaluation systems should be revised to this end.

6.3 Designing incentives for individuals and communities

The incentives for individuals and communities to participate in agile governance are, first, to ensure that individuals have a means to participate in the governance of government, businesses, and other organizations with which they collaborate, and, second, to ensure that their suggestions and requests lead to appropriate institutional changes and improvements.

For this reason, it is important that government and businesses improve transparency in their communication with users, citizens, and their representatives, as well as in the processes through which input is actually reflected in services and policies.

Furthermore, it is important that government incentivizes (e.g., through investments and tax benefits) private sector to actively support the formation of NPOs and NGOs that can lead their communities.

In addition, it will become even more important to create an environment that allows more individuals and communities to participate in policy formation processes by enabling exchanges of human talent between public and private sectors, or people taking dual positions in both sectors.

7 International collaboration for implementing agile governance

In Society 5.0, which originates in borderless cyberspace, we need to implement agile governance initiatives at a global level.

Given this, various ways of cooperation can be considered in addition to intergovernmental efforts, including activities carried out by multi-

stakeholder organizations, collaborations on standards development, and collaborative efforts among private sectors.

The following initiatives that are particularly relevant to agile governance have been ongoing to date.

Global initiatives for implementing agile governance

① Agile Nations

In November 2020, Canada, Denmark, Italy, Japan, Singapore, the United Arab Emirates, and the United Kingdom established Agile Nations [31] to collaborate internationally in formulating rules to promote innovation. In October 2021, the first ministerial-level meeting was held to introduce each country's future initiatives for formulating agile rules.

② OECD recommendation on agile regulation

In October 2021, the OECD developed the OECD Recommendation for Agile Regulatory Governance to Harness Innovation [32]. The Recommendation provides guidance on how agile regulation can promote innovation in our uncertain world, including outcome-based regulations that are adaptable to future change, data-driven risk assessment and law enforcement, and international cooperation in these areas.

③ Global Future Council on Agile Governance, World Economic Forum

The Global Future Council on Agile Governance (hereinafter called "the Council") carries out a range of activities with leading global experts from business, civil society and government to advance agile governance. The Council has raised international awareness by authoring whitepapers and toolkits, recognizing and sharing global leadership via the Agile 50 List, and in helping to establish the Agile Nations—a group of 7 countries collaborating to improve and deploy agile governance techniques. Currently, the Council are researching best-practice insights on the application of emerging technologies for regulation (known as RegTech) to increase regulatory efficiency, accuracy and accessibility, while also developing educational modules to train practitioners to drive forward and adopt agile governance.

④ Initiatives by the International Organization for Standardizations

International standards that are subject to the WTO TBT Agreement (e.g., the ones issued by organizations such as International Organization for Standardization) are extremely effective tools for promoting international cooperation. Japan's efforts to present the concept of Society 5.0 as a theme of international standardization has been ongoing since 2017, and has continued mainly in the ISO arena. Official international activities began in July 2020 in the form of IWA (International Workshop Agreement) 39, and active discussions now involve nearly 100 experts from 27 countries, including

31) https://www.meti.go.jp/press/2020/12/20201209001/20201209001-1.pdf
32) https://www.oecd.org/mcm/Recommendation-for-Agile-Regulatory-Governance-to-Harness-Innovation.pdf

other international standardization organizations, based on the themes of "human-centeredness," "resolution of social issues," and "cyber-physical systems," which are the keywords of Society 5.0.

In order to expand the benefits of innovation globally, multinational cooperation in agile governance will be even more essential.

Study Group on a New Governance Models in Society5.0

(as of January 31, 2022)

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