

**IN PURSUIT OF AN ENVIRONMENT FOR
UTILIZATION OF DATA**

– Towards achievement of Society 5.0 –

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KEIDANREN (Japan Business Federation)

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Introduction

It has been 15 years since enactment of the Basic Law on the Formation of an Advanced Information and Telecommunications Network Society (The IT Basic Law) and in that time Japan's information and telecommunications network infrastructure has become more sophisticated and the internet has become essential to the business activities of corporations and the lives of the Japanese people. There are hopes that the enormous amount and variety of data that is collected and amassed through the internet will become a wellspring of innovation. In its initiatives including *Statement on Forging the World-Leading IT Nation* (May 20, 2016) and in the *Japan Revitalization Strategy* (June 2, 2016), the Japanese government has positioned the promotion of data utilization as a pillar of its growth strategy.

In its opinion piece, *Toward Realization of the New Economy and Society* (April 19, 2016)¹, Keidanren pointed to the importance of developing rules for encouraging the utilization of data towards achievement of Society 5.0 (the super smart society)². This paper explores the issues to be overcome and the measures necessary to progress data utilization.

I. The significance of data utilization

In recent years the uptake of smart phones and the IoT (Internet of Things) has connected all sorts of people and goods to the internet, making it possible to collect an enormous amount and variety of data and heightening aspirations for the utilization of the data collected. Specifically, personal data held by the public and private sectors³, public data held by national and local governments (e.g. terrestrial and ocean maps, traffic volumes, climatic information), real estate information (e.g. titles information, land values), medical and health information (e.g. itemizations of medical expenses, data from special medical check-ups, health care information), business systems data compiled through business activities (e.g. POS data, corporate trading data, customer data, accounting data, log data), sensor data (e.g. machinery

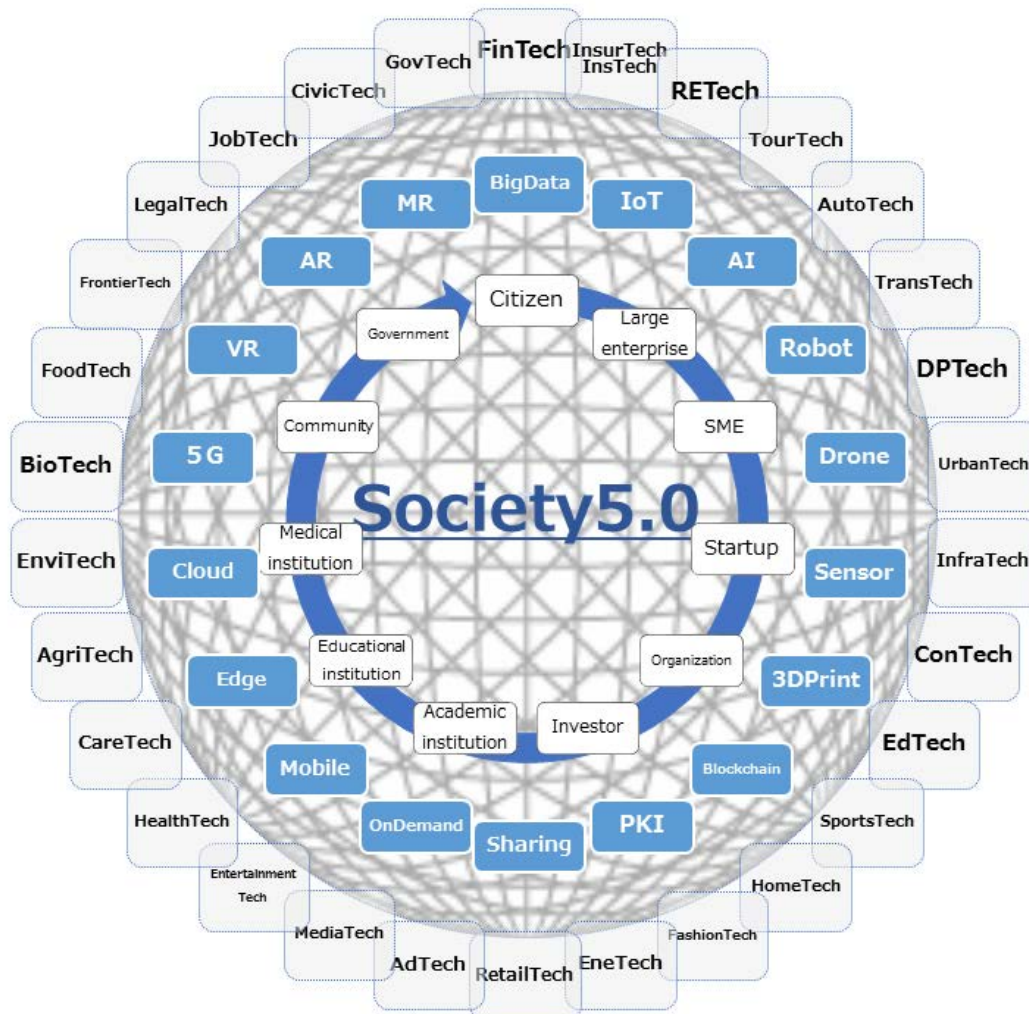
¹ Refer to *Toward Realization of the New Economy and Society*, Keidanren position paper, April 2016 from <http://www.keidanren.or.jp/policy/2016/029.html>

² In its *Fifth Science and Technology Basic Plan*, the government dubbed the society succeeding the hunter-gatherer, agrarian, industrial, and information societies as the 'super smart society' and is firmly progressing the concept through public and private sector linkages under the name 'Society 5.0'. The super smart society is defined as 'a society where the various needs of society are finely differentiated and met by providing the necessary products and services in the required amounts to the people who need them when they need them, and in which all people can receive high-quality services and live a comfortable, vigorous life that makes allowances for their various differences such as age, sex, region, or language'.

³ Personal information refers to 'information about an individual which can identify the specific individual by name, date of birth, or other description contained in such information' (Article 2(1) Act on the Protection of Personal Information) whereas 'personal data' is understood to be a concept relating to information about an individual, including information about an individual's conduct and circumstances.

and infrastructure data) and all other type of data could be the object of utilizations. Linking these many and varied pieces of data should create new value.⁴

[Caption] The super smart society – a fusion of all industries and IT



One new service made possible by the utilization of data, and the focus of much attention in Japan of late, is FinTech⁵, which has given rise to hot debate about the business possibilities deriving from combining finance and IT. Uptake of IT is accelerating in all industries around the world, as exemplified by EdTech (education combined with IT) and RealEstateTech (real estate combined with IT).⁶ IT has been applied in business, but such technological advances as IoT, AI and

⁴ Drones and artificial intelligence (AI) are anticipated to be used to collect and analyze data. Collection of geographical data by drone and the application of AI to radiological interpretation of MRIs and CT scans in medical institutions are two of many conceivable applications.

⁵ The trend in new service creation in the areas of account settlement, virtual currencies, financing, and asset management by leveraging IT. A word derived from ‘finance’ and ‘technology’.

⁶ Other movements are: HealthTech (health and medicine and IT), HomeTech (lifestyle and IT), AutoTech (automobiles and IT), AgriTech (agriculture and IT), FoodTech (food and IT), RetailTech (retail and IT), AdTech (advertising and IT), FashionTech (fashion and IT), LegalTech (legal services and IT), JobTech (employment and IT) and GovTech (bureaucracy and IT).

blockchains and rapid growth in the rate of personal ownership of smart phones are giving rise at unprecedented speed to innovation in new business creation.

If it is to maintain international competitiveness Japanese domestic industry cannot afford to miss the boat. All sectors should innovate, with a sense of urgency developing businesses that leverage IT and utilizing the data created beyond organizational and sectoral bounds.

Utilization of data have great significance, not only from the perspective of improving competitiveness, but also from the perspective of improving the quality of individual lives and resolving social issues. As indicated in the addendum *Examples of Data Utilizations that Create Affluence for Citizens*, providing services and goods that are finely differentiated according to the user's perspective enhances convenience and contributes to solving such social issues as preventing and reducing the incidence of natural disasters and improving health.

As an acknowledged advanced nation in tackling these issues, Japan is looked to be among the first to use and apply data to resolve social issues and to contribute to solving global social problems.

[Caption] Examples of Data Utilizations that Create Affluence for Citizens⁷

1. Sharing Probe Vehicle Data in Case of Disaster
2. Sharing Data on Disaster Victims to Facilitate Support Activities
3. Evacuation Guidance Utilizing Camera Images
4. Sharing Real-Time Public Information to Cope with Disasters and Accidents
5. Utilization of Individual Behavior Trends to Promote Town Development and Encourage Tourism, Etc.
6. Advanced Regional Medical Services by Interactive Sharing of Medical and Care Data
7. Utilization of Statistical Data on Healthcare and Personalized Health Guidance and Advice
8. Utilization of Statistical Data on Wellness of Workers to Improve Their Work Situations
9. Utilizing Data on Indoor Environment for the Health and Safety of Elderly People
10. Utilize "Health Examination Data" for Life Insurance
11. Utilization of Statistical Data on Driving and Using it in Setting Automobile Insurance Rates
12. Analytics on Electronic Vehicle battery related information
13. Remote Supervision of Construction Machinery
14. Efficient maintenance of large ship
15. Operation & Maintenance of Overseas Plants and Sites
16. Remote Monitoring of Freezers
17. Export Value-Added Japanese Food
18. HP Earth Insights - Wildlife Picture Index System
19. Entertainment Platform
20. Action analysis of gamers

⁷ New examples added to the addendum to the American Chamber of Commerce in Japan – Keidanren *U.S.-Japan Internet Economy Private Working Group Joint Statement* 2016 (February 25, 2016), *Examples of solutions to social issues from the application of personal information*, and to the addendum to the *U.S.-Japan Internet Economy Private Working Group Joint Statement* (September 16, 2014), "Examples of the Economic Impact from Greater Utilization of Cross-Border Data" The list includes both actual and possible examples.

II. The premise for promoting data utilization

This paper focuses on measures to promote the utilization of data in the context of the significance of data utilization discussed in the previous section, but it is a given that the primary premise is that privacy, cyber security, free data flows and harmonization of systems across borders must be assured.

Keidanren has repeatedly put that position in relation to these points.⁸ Since 2012 in particular, Keidanren has participated with American industry in the U.S.-Japan Policy Cooperation Dialogue on the Internet Economy⁹ and advocated their importance in joint statements.¹⁰ As a result, their importance was also referred to in the G7 ICT Minister's Meeting in Takamatsu, Kagawa¹¹ in April 2016, and in the outcomes document¹² from the G7 Ise-Shima Summit in May of the same year. Initiatives aimed at a more global shared awareness are becoming even more needed.

1. Protection of privacy

The utilization of data, and personal data in particular, must in no way infringe the rights and interests of individuals. Companies must continue to have in place appropriate systems for protection and management of information in accordance with the laws and institutions relating to protection of personal information, and must strive to present privacy policies relevant to the purpose for collecting personal information and its management, that are transparent and easy to understand, to sweep away customer concerns.

2. Stronger cyber security measures

Damage from cyber attacks is becoming more serious around the world, which makes it essential that safe cyber spaces are secured for the collection and utilization of data on the internet. Large-scale cyber attacks present a danger of grave situations

⁸ Refer to:

Keidanren position paper *Policy proposal for promotion of digital society based on the Individual Number System – maximize deployment of data utilization policy*, November 2015 from

<http://www.keidanren.or.jp/policy/2015/106.html>

Keidanren position paper *Second Proposal for Reinforcing Cyber Security Measures*, January 2016 from <http://www.keidanren.or.jp/policy/2016/006.html>

⁹ A dialogue on general policy with a focus on the economic aspects of the internet, convened regularly between the U.S. and Japanese ICT policy authorities (between the Director-General for International Affairs, Global ICT Strategy Bureau, Ministry of Internal Affairs and Communications and the Ambassador, U.S. Department of State). Japanese and US industry (Keidanren and the American Chamber of Commerce in Japan) have attended the public-private sector dialogue since the third dialogue in 2012 and submitted joint statements.

¹⁰ Refer to:

U.S.-Japan Internet Economy Private Working Group Joint Statement 2016, February 2016 from

<http://www.keidanren.or.jp/policy/2016/015.html>

U.S.-Japan Internet Economy Private Working Group Joint Statement, September 2014 from

<http://www.keidanren.or.jp/policy/2014/079.html>

U.S.-Japan Internet Economy Industry Forum Joint Statement 2014, March 2014 from

<http://www.keidanren.or.jp/policy/2014/018.html>

¹¹ Refer to *Result of G7 ICT Ministers' Meeting in Takamatsu, Kagawa*, the Ministry of Internal Affairs and Communications. The G7 ICT Multi-Stakeholder's Conference, involving experts from industry, academia, and government, was convened in parallel with the Ministerial talks (convened by the Ministry of Internal Affairs and Communications and supported by Keidanren and other stakeholder bodies). The *Charter for the Digitally Connected World* was one of several outcomes documents published.

¹² Refer to *G7 Principles and Actions on Cyber*, G7 Ise-Shima Leaders' Declaration.

for nations, such as paralysis of daily life and economic activity. For important infrastructure in particular, not only must infrastructure operators have countermeasures, but also governments must put cyber security measures in place. Companies must position cyber security as a key issue for management, and must engage actively in organizational reform, human resources development, and cross-business linkages. Public and private sector must collaborate closely to put in place stronger safety measures while respecting the autonomous initiatives of companies in this regard.

3. Free cross-border data flows

Data is able to flow instantaneously across borders via the internet, with economic benefits for both those generating the data and those receiving it. It is key that international data provision services are not impeded or restricted by protectionist regulations.

As stipulated in the TPP's Electronic Commerce Chapter,¹³ on the premise of appropriate protection of personal information based on national legislative frameworks, it is important that the free cross-border data flows are recognized. From this perspective, there is a need to continue to notify regulating nations that coercive data localization regulations¹⁴ apparent primarily in emerging nations, is undesirable from the perspective of medium- to long-term economic development in that nation.

Further, in the interests of a level playing field in global competition data handling systems should also be internationally harmonized.

III. Issues and measures for promotion of data utilizations

Data is known as the 'fourth management resource' and how well or how badly it is utilized is directly linked to international competitiveness. IoT and sensor technology are advanced in Japan and despite enormous amounts of data being amassed, for reasons of legislation, institutions, and social culture, the climate is inadequately conducive to maximizing utilization of data, so that much data is buried and not leading to business opportunities. To actively encourage the circulation of public and private sector data and cause it to be widely used and applied in society, there is a need to simultaneously progress creation of appropriate legislation and institutions to protect personal information, enactment of basic legislation for promoting the utilization of data, and stimulation of a social climate that enhances competitiveness.

1. Appropriate creation of a legislative system to protect personal information

(1) Act on the Protection of Personal Information

In September 2015, an act to amend legislation to protect personal information was enacted (hereafter, 'Amended Act on the Protection of Personal Information'). The fact that in addition to establishing the Personal Information Protection

¹³ Chapter 14 of the TPP (Trans-Pacific Partnership) Agreement, the Electronic Commerce Chapter, recognizes the transfer of information (including personal information) across borders by electronic means in principle, for the purposes of carriage of corporate and other business, and incorporates prohibition against demands to locate computer related equipment in a country's own territory.

¹⁴ Regulations that enforce the placement of data on servers in one's own country.

Commission¹⁵ it incorporates a legal framework to promote utilization, including clarification of definition and the de-identified information¹⁶, is to be commended for its direction. In this systemic amendment, legislation has defined the broad systemic framework and the detail is addressed in ordinances, regulations, and guidelines.¹⁷ It is important in proceeding to full implementation of the Amended Act on the Protection of Personal Information,¹⁸ that the Personal Information Protection Commission takes adequate account of the views of business, and puts in place rules that will actually promote utilizations. Further, to establish practical rules that correspond to the nature and types of businesses and that are appropriate and highly transparent, rules such as ordinances, regulations, and guidelines should be limited to a basic framework and specific handling of data should be defined through private sector self-regulation. The creation of a system that has at its heart accredited personal information protection organizations could also be a possibility.

One point for discussion is the data that constitutes a photograph of an individual's face (hereafter, 'facial image data'), which could be acquired and used for prevention of criminal activity, but as that has been identified as an invasion of privacy, such data is still not yet used to the full. Its use is also anticipated in the prevention of disasters, or in improving convenience and services through analysis of customer attributes and movement in commercial facilities to reduce congestion and for product endorsements. To that end, there is a need to consider regulations that achieve a balance between protection of personal information and utilization as appropriate to purpose and method of use rather than uniformly regulate all activities in acquisition and use. Further, it is also important that consideration be given to the nature of regulation on the unconscious reflections of individuals in an undifferentiated group of many.

Maximum care needs to be taken - not just in relation to facial image data - to ensure that there are no impediments in new regulations to existing, socially recognized businesses, or to the creation of future new industries and services. Further, regular reviews of regulations must be considered in response to developments in technology and services.

(2) Acts on the Protection of Personal Information Held by Administrative Organs, etc.

In May 2016 the Amended Act on the Protection of Personal Information Held by Administrative Organs and the Amended Act on the Protection of Personal Information Held by Independent Administrative Agencies, etc. (hereafter, 'Amended Acts on the Protection of Personal Information Held by Administrative Organs, etc.') were enacted, and the fact that it incorporated a legal framework to promote utilizations, including clarification of definitions and the non-personally

¹⁵ Japan's first monitoring and supervisory entity responsible for general administration of personal information protection. A strongly independent government commission (i.e. National Government Organization Act Article 3 Commission) on a par with the likes of the Fair Trade Commission

¹⁶ Where personal information has been processed to ensure a particular individual cannot be identified and the information has been rendered incapable of restoration.

¹⁷ Refer to *Outline of the System of Reform Concerning the Utilization of Personal Data* (June 24, 2014).

¹⁸ Full implementation on the date defined in ordinance as being within two years from the date of enactment of the Amended Act on the Protection of Personal Information (September 9, 2015).

identifiable information¹⁹ at the same time as the Amended Act on the Protection of Personal Information, is to be commended for its direction. It is important that there be investigation into promotion of unified data circulation between the public and private sector in the context of the views of businesses that use and apply data, before full implementation of the Amended Acts on the Protection of Personal Information Held by Administrative Organs, etc.²⁰

The Personal Information Protection Commission has been given sole jurisdiction over the de-identified information under the Amended Act on the Protection of Personal Information, and over non-personally identifiable information under the Amended Acts on the Protection of Personal Information Held by Administrative Organs, etc. Criteria for levels of processing should be unified between public and private sectors to enable businesses that receive submissions of the non-personally identifiable information to use and apply the data seamlessly with the de-identified information. Further, to avoid confusion between citizens and businesses, the same conditions for handling the non-personally identifiable and the de-identified information should be clearly stipulated in guidelines, which should be made widely known.

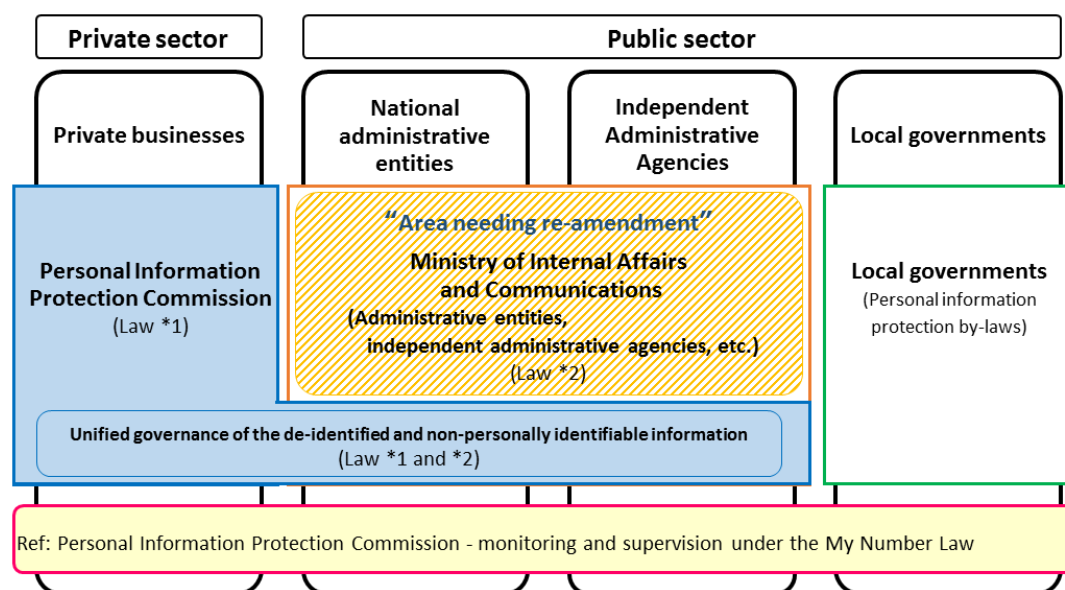
The Personal Information Protection Commission, as a third party entity with oversight of both private and public sectors, is looked to to provide appropriate supervision to ensure a balance between protection of personal information and its utilizations. The Commission must be solely responsible for general legislation and institutions relating to personal information for both the private and public sectors and the Commission's systems should be enhanced, obviously to eliminate overlapping administration and achieve efficient administrative processes, but also to promote seamless utilization of personal information. From this perspective, it is essential that the Amended Acts on the Protection of Personal Information Held by Administrative Organs, etc. are re-amended and that there are also legislative measures to promote seamless data circulation and utilization beyond different local government by-laws relating to personal information.

Further, in fields where there are particularly significant social benefits such as fields associated with health and medicine and disaster prevention and reduction, while there must be particular care in handling information, it is appropriate that there be an emphasis on promoting utilization, including of information that has a low degree of conversion to pseudonym. There should be consideration of promotional measures for sophisticated utilization, including the need for creation of special legislation.

¹⁹ Where personal information has been processed to ensure a particular individual cannot be identified and the personal information has been rendered incapable of restoration. The supplementary resolution says that it may be handled in the same way as the de-identified information under the Amended Act on the Protection of Personal Information.

²⁰ Full implementation on the date defined in ordinance as being within one year and six months from the date of enactment of the Amended Acts on the Protection of Personal Information Held by Administrative Organs, etc. (May 27, 2016).

[Caption] A system of supervision for handling personal information²¹



*1 Amended Act on the Protection of Personal Information

*2 Amended Acts on the Protection of Personal Information Held by Administrative Organs, etc.

2. Enactment of the Basic Law for Promotion of Data Utilizations

Recently, a legislative system for the protection of personal information is now being put in place, with the objective of contributing to growth strategies that maximize the power of the private sector through the utilization of personal data. However, to achieve further progress in utilization of data, additional resolutions relevant to the following types of issues are urgently needed. Backing in the form of enactment of the basic law for promotion of data utilizations is essential for national and local governments and companies to unite with a sense of urgency and engage in these issues.

(1) From paper to digital

With the spread of the internet, the environment for an efficient way of doing business using networks is on the brink of coming into being globally, but it needs to be premised on operations and procedures done on paper, being digitized. Currently, administrative and other procedures are in principle paper procedures, which is a major impeding factor in data utilization. Principles pertinent to procedures need to be converted so that digital is primary tool while paper documents are secondary in administrative procedures.

Conversion of principles requires digitization to be progressed in concert with business process engineering (BPR). For example, consideration needs to be given to measures to encourage digital procedures, such as the use of electronic signatures, biometric certification, or public personal certification functions such as the My Number card, instead of affixing a seal, and the levying of fees on paper procedures. In particular, national support is essential for BPR for local governments.

²¹ At the point of full implementation of the Amended Act on the Protection of Personal Information and the Amended Acts on the Protection of Personal Information Held by Administrative Organs, etc.

(2) Standardization of data formats

When data formats for the same operations and procedures are different in each organization, data has to be processed and converted for operations and procedures beyond the organization. To promote utilization of data, it is important there be API linking²² and standardization of data formats.

Currently, government agencies, local governments, companies, organizations, and each individual use individual formats. The public and private sectors need to collaborate on standardization of formatting, including data format, terminology, units, definitions, and granularity, while balancing stakeholder interests.²³

As part of that, the public sector should encourage standardization of data formats in submissions it requires from the private sector. For example, while there may be no difference in assessment requirements for applications for eligibility to participate in tenders, because the IDs and the formats of data are not standardized between government agencies and local governments, standardization should happen as a matter of urgency.

(3) Extension of ID common to public and private sectors

To utilize data laterally across operations and procedures requires standardization of both format and ID, or identification. Currently, individual IDs are given to the same entity by each organization, but if it were possible for both public and private sectors to use the same common identification, it would enable greater sophistication and efficiencies in national activities.

In October 2015, with the enactment of the My Number Law,²⁴ each citizen was notified of their My Number (individual number) as their ID, common to both public and private sectors, which it is hoped will bring efficiencies through information linkages in the areas of social insurance, tax, and disaster response.²⁵ Further, the introduction of ID for the medical and related fields is being considered,²⁶ for safe and efficient information linkages in medical and related fields (the areas of health, medical treatment, and caring).

The Corporate Number given to corporations at the same time as individual numbers is different from an individual number in that it is made public and can be used by anyone at will, and in that sense is Japan's first and landmark ID number common to public and private sectors. The first step in extending an ID common to public and private sectors is to promote the use of the Corporate Number and build expertise in its operation.²⁷

²² API (Application Programming Interface) is an agreement that defines the format of procedures and data to get data and functions managed by a system through an external program and use it.

²³ Examples of such initiatives are the American Data Act and ISA² in Europe.

Data Act: <https://fedspendingtransparency.github.io/>

ISA²: <http://ec.europa.eu/isa>

²⁴ Act on the Use of Numbers to Identify a Specific Individual in the Administrative Procedures

²⁵ Consideration is being given to the scope of use and application to clerical work associated with the family register and passports, wherein it is stipulated that 'in the third year after enactment of the act, the scope of use of the individual number shall be considered, and if deemed necessary, and with the understanding of the people, the necessary measures shall be established'.

²⁶ Refer to Ministry of Health, Labour and Welfare.

²⁷ For example, for qualifications given to a corporate entity, traditionally, different ID numbers have been awarded, but from now on in the new system a mechanism should be put in place that makes it possible to easily check the qualifications of a company from its Corporate Number. Further, as a measure for invigorating small and medium enterprises, SaaS (Software as Service: a style of

IDs common to the public and private sector should be extended in the context of that expertise and 5W1H standardization²⁸ should be achieved in cyber space. Specifically, there is a need to put in place IDs common to public and private sectors, in first, through collaboration on social infrastructure (e.g. bridges and roads, traffic signals), administrative procedures (e.g. support and assessments), housing, and motor vehicles²⁹.

(4) Opening public data

There is a high level of need for industrial use of public data held by local governments, such as data relating to maps, land, transport, and population.³⁰ Since July 2012 when the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (IT Strategic Headquarters) developed its *Open Government Data Strategy*, opening of public data has been underway at a national level and in cities designated by government ordinance, a movement that should be accelerated. Use of open data is very significant, not only from the perspective of invigorating the economy, but also from the perspective of improving transparency and credibility in administration and promoting citizen participation and public and private collaboration. Opening of public data should be progressed with all speed, based on the principle of making it public in formats appropriate to mechanical reading, subject to rules of use that permit secondary use. In particular, as there is a high level of need for use of data held by local governments, it is important to be proactive about incorporating the views of private sector business people and academics for data to be more open in the eyes of users. By promoting data utilization through proactive linkages between corporations and local governments and feeding the results of use back to local governments to promote secondary and tertiary use, it should be possible to contribute to invigorating local industry and measures for disaster prevention.

(5) Developing human resources

Developing human resources is important in promoting data utilization. There is a need for society as a whole to engage in developing human resources capable of using data, and also to encourage active exchange of human resources between industry and academia and between large corporations and venture businesses. Skills necessary for data use must be clarified, to progress the use of human resources beyond organizations and industries.

service in which software functions can be used over a network) providers can be expected to collect and apply information on small and medium enterprises, using their Corporate Numbers as the key.

²⁸ 5W1H standardization in cyber space is standardization of:

When: It is possible to standardize with Greenwich mean time and a time stamp.

Where: There is a need to achieve conformity of 3D coordinates, road maps, residential land maps, etc.

Who: Greater use of individual and corporate numbers.

What: Establishment of an ID system for residences, motor vehicles, equipment, goods, and other nouns.

²⁹ Each institution manages individual numbers, for example, for motor vehicles and registration. There is a view that there is a need to integrate the IDs the institutions are able to use, if only for the roll out of services, through provision of historical motor vehicle information. Refer to the Ministry of Land, Infrastructure, Transport and Tourism.

³⁰ Refer to Keidanren position paper, March 2013 *Results of Survey Relating to Industrial Use of Public Data* from <http://www.keidanren.or.jp/policy/2013/020.html>.

In addition to the skills of human resources capable of using data, it is important to improve citizen understanding and literacy in data use. There is a need to improve education in the maths and sciences from elementary through to high school, to make progress on making programming education compulsory from 2020, as cited by the government in its *Japan Revitalization Strategy 2016*, and also to consider education relating to data analysis and cyber security.

(6) New mechanisms for data circulation

With the spread of smart phones, a new framework for direct linkages between corporations and individuals or between individuals is emerging. Going forward, it is possible to anticipate that the spread of IoT equipment will create massive flows of many and varied types of data, which will open up possibilities for utilization. However, progress on utilization is difficult in the current circumstances, either because local governments and businesses that are the custodians of the data do not have expertise in its utilization, or because there are no mechanisms in place for the appropriate transfer and utilization of personal data. There is a need, in response to these issues, to put in place new mechanisms for promoting the circulation and utilization of data.

The government's commitment in its *Statement on Forging the World-Leading IT Nation* (May 20, 2016) to investigating new mechanisms³¹ for individuals to engage in data circulation, the nature of a healthy data trading market, and individuals handing their personal data to the care of a person they trust for it to be used to the benefit of the individual and society, should be applauded. Public and private sectors must be united in a sense of the urgency about not falling behind the changing global environment in considering these matters.

The new mechanisms must enable individuals, businesses and administrative entities to participate of their own volition, and consideration must be given to incentives for individuals and businesses, social significance and efficacy, and methods to ensure the credibility of the system. Further, to make the new system functional, the understanding of the Japanese people is essential. The interim findings³² of the government investigative group cite as a necessary measure for some time to come, 'promotion of general education and awareness raising and education in data use'. The national and local governments are called on to be united in engaging in this initiative.

(7) Creation of a seamless system of government investigation and implementation

Currently, multiple ministries are bristling with investigative groups set up to promote the utilization of data, and there is overlapping and repetition of commissions and hearings and topics of debate. To make effective use of precious resources the government should create a seamless system of investigation and implementation, including the establishment of a cross-ministry Data Utilization Promotion Headquarters (provisional title).

³¹ The concept of a system of trust banks for information use (otherwise known as information banks).

³² Refer to 2nd Interim Summary Task Force for the New Bill regarding the Utilization of Information Technology, Regulatory Reform Subcommittee, IT Strategic Headquarters.

3. Stimulation of a social climate that will enhance competitiveness

(1) Encouraging understanding from the Japanese people

The growing amount of information on the internet is giving rise to excessively negative reactions, expressed as uncertainties and discomfort, about the utilization of data, such as 'Maybe my personal privacy is being infringed,' or 'I don't see any benefits to me.' For that reason, even if businesses respect the law in their utilization of data, they place their reputations at risk. Reducing these reputational risks and achieving a social culture that encourages, without nipping in the bud, the growth of competitive new business, is an important issue for Japan.

The formation of social consensus in relation to the utilization of personal data is not something that can be achieved solely through corporate initiatives. There is a need to promote understanding from the Japanese people about the benefits of data flow and utilizations, by the government showing a firm resolve to increase affluence in the lives of the Japanese people through the utilization of data, and also by the public and private sectors putting forward use cases from the perspective of the ordinary citizen.

(2) Eliminating gray zones from the system

There is also a need to eliminate gray zones from the system and put in place easy to understand rules. In putting rules in place a negative list method should be the starting point. For example, list items that at a minimum should be banned, such as re-identification of the de-identified information, and on the one hand strictly punish persons who breach the list, but on the other, make conduct not listed lawful. If a new problem emerges, additional prohibited items can be added, but there would be no retroactive application. It is important to in this way create an environment in which corporations can create new business without delay.

(3) Configuring collaborative territory

Corporations also need to progress the configuration of collaborative territory by identifying areas in which collaboration beyond the bounds of individual corporations is necessary, with a view to resolving issues from a national perspective, improving convenience in the lives of the Japanese people, and enhancing international competitiveness for industry, such as by the public and private sectors uniting on integrating data formats to create common platforms. For example, domestic electrical manufacturers, cartography companies, and motor vehicle manufacturers have united to create the high precision three dimensional maps necessary for the achievement of a system to support automatic vehicle operation and safe driving, and are progressing standardization of map data specifications and data configuration methods. Similarly, there is a need to identify areas for collaboration in other fields, such as promoting standardization of POS data and configuring infrastructure to make logistics visible and optimize support materials in the event of a disaster.

Conclusion

Keen global competition for the utilization of data as a wellspring of innovation has already begun. In Japan, it cannot be denied that creation of the necessary environment for utilization is lagging. If things remain as they are, Japanese corporations will be left behind in the competition and not only will their survival be at risk, there is a danger that Japanese society will be unable to enjoy the fruits of data utilization.

For public and private sectors to unite to quickly implement the measures raised in this proposal, the basic law for promotion of data utilizations must be enacted quickly. In addition, we look to the government to put in place a climate conducive to obtaining the understanding of the Japanese people and to progress utilizations smoothly, while balancing data protection and utilization.

As industry, we must also accept our mission to create new value through innovative services and products from data utilization, to improve the quality of life of all citizens and to contribute to resolving social issues through multiple specific initiatives to achieve Society 5.0.