Report on Medium-Term Vision on Competition in the Digital Market: Summary

1. Introduction

With regard to **the future of the digital markets in Society 5.0** where cyberspace and physical space converge, we made recommendations on how to develop the markets into dynamically competitive ones with future risks taken into consideration, so that benefits from digitalization can be maximized through diversified innovation, from various viewpoints including business trends, market environment, and technology trends.

2. Current Situation Surrounding the Digital Markets

In relation to the current digital markets which are mainly on cyberspace, we have analyzed the **strength and ongoing / future actions of mega digital platform operators** ("mega PF").

Strength: **Strong customer touchpoints** (Users are locked in via network effects. Data is collected through customer touchpoints and analyzed with AI and other technologies to provide customers with new values.)

Future actions: **Three vectors** of (1) **widening and deepening of customer touchpoints** (closer to physical bodies and closer to decision-making), (2) **expanding into physical space,** and (3) **expanding into upstream domains** (selling their own products/services through their own intermediating market)

3. Future Risks in the Digital Markets

We will face the following **four risks** in the future, which include those associated with not only the actions of mega PFs but also the convergence of cyberspace and physical space.

Actions of mega PFs →   (1) **Concern about "the winner-takes-all"**
                                  (2) **Concern that even an individual's decisions may be controlled**

Risks associated with the convergence with physical space →
                                  (3) **Lack of data reliability** (reliability of origin and record of data is more important in the fields such as autonomous driving and healthcare)
                                  (4) **Data processing and its costs that cannot be accommodated to IoT development**s

4. Future Direction

Innovation through dynamic competition in the digital markets will accelerate Society 5.0 and make it richer.

◆ **The future of digital markets to be pursued:** Not "dependent on a handful of giant corporations" or "a surveillance society," but **the third way**:

→1) **Competition among diverse players**
2) **"Data governance" as a foundation of trust**
3) **Realization of digital markets based on "trust"**

◆ To achieve these, we will implement the followings from the various aspects of business environment, rules, technologies, etc., with short-term and medium- to long-term perspectives, responding flexibly to the coming changes in the circumstances.

(1) **Acceleration of digital transformation ("DX")** to create diverse players in the digital markets **[short-term]**

<Current issues>

● Current DX situation: **Implemented sporadically within companies** (still in the stage of trials and implementation in limited business units)

● Bottlenecks: Sharing a sense of urgency, reform of corporate culture, reform of management structure for corporate culture change, empowerment, integration of business personnel and technology personnel

<Direction and Policy Measures >

In the COVID-19 era in which a sense of urgency has been shared and momentum to reform corporate culture has been enhanced, **DX should be accelerated.**

◆ **Support for management reform** → Encourage corporations to use tools such as DX Promotion Indices. Based on data gathered through these tools, the Government will analyze and provide information on the progress of DX activities, best practices, etc. Encourage collaboration with start-up companies.

◆ **Reform of impeding regulations** → Regulatory sandboxes, refining regulations, and review of administrative procedures that require paper documents or face-to-face processes.

◆ **Government DX** → As instructed by the Prime Minister, strategies for promoting "digital government" will be put together in the near future and will be implemented.

(2) **Development of law enforcement** (strengthening of the enforcement of the **Antimonopoly Act** and the Act on Improving Transparency and Fairness of Specified Digital Platforms ("**Transparency Act**"), **and development of rules** in order to flexibly respond to changes in digital markets **[short- and medium-term]**

<Current issues>

- **Rules have been developed to a reasonable extent over the past year**. It is **necessary to strengthen systems that enforce such rules**.
- Meanwhile, there is a **risk that mega PFs expand into other markets including "physical" ones and become oligopolistic rapidly**, by leveraging their existing strength (In Europe, ex-ante regulations are under consideration.).

<Direction and Policy Measures>

- ◆ **Development of law enforcement** suitable for digital markets.
  - ➢ With regard to enforcement of the **Antimonopoly Act**, **enhance the ability to find new cases** and **strengthen the investigation sections** by appointing experts in economic analysis, digital fields, etc., and cooperating with outside parties.
  - ➢ **Design in detail the co-regulation system and strengthen the relevant staff** in light of the **Transparency Act**.
- ◆ **Development of means to guarantee the transparency and fairness of digital business**, such as **a mechanism by which fairness can be verified with regard to transactions invisible from outside** since these are processed by programming code (this aspect will be considered in advance with reference to the digital advertising market.).
- ◆ In relation to **the risk of oligopolization by mega PFs in the other markets**, it will be dealt with through M&A reviews and other enforcement of the Antimonopoly Act, etc. Additional rules will **continue to be under consideration**.

(3) **Decentralized "Trusted Web" in which the way of data governance will be changed by technologies [medium- and long-term]**

<Current issues>

- In the current Internet structure, **data is managed and used by mega PFs in a centralized way**.
  (How data is used is unknown to users (black box) → Lack of "trust")
- Lack of trust raises **concerns about the use of personal data** and can lead to a **hindrance to data utilization among companies**.
- In this situation, **there is a limit to how much trust can be guaranteed by laws and contracts**, and there is a need to **ensure technologically the governance of fair handling of data** (Some engineers around the world are pursuing this direction.).

<Direction and Policy Measures>

→ "Building a mechanism (**"Trusted Web"**) in which **data access can be controlled by the individuals, companies, etc., to which such control of data access is supposed to belong**, so that they can **manage the value arising from utilizing such data**."

> ➤ In the future, **the layer of "data governance" is to be added to the current Internet structure and "trust" in data society is to be rebuilt**.
> ➤ **Accommodating to the IoT society** where data is exchanged autonomously between devices with almost no human intervention.

<Possible examples of technological elements>

Decentralized IDs that individuals and companies themselves can issue and manage to control their own data, rather than being issued and managed centrally by a specific PF or state. Traceability which can make falsification difficult and data record transparent. Systems to store and manage data in a decentralized manner without being confined to a specific PF server or other location. Mechanisms to facilitate direct transactions without intermediaries (P2P trading). Edge computing to efficiently process data on or near a device working with cloud computing, etc.

(Actions over the coming year)

Although the transition to the new structure will not happen rapidly, **Japan will lead the technology and business in building "trust"**, **collaborating globally**, **while designing the future structure of data governance together with building up use cases** according to people's needs and business needs.

◆ **Disseminate the report's content at home and abroad** (leading to **one of the actions to shape DFFT** (Data Free Flow with Trust)). **Form domestic and international human networks**.
◆ **Establish a public-private consultation group** to **design a structure for data governance** to be realized in the future, **extract necessary elements, technologies** to realize them and **issues to be addressed**, and **formulate a road map for transition, etc**.
◆ **Identify fields of the leading use cases** through publicly offered proposals, etc, **extract technical issues, business issues and institutional issues,** and **formulate a road map, etc. toward the resolution of such issues** (in conjunction with structural design discussions of future data governance).