Ministry of Economy, Trade and Industry

PROVISIONAL TRANSLATION

The Intellectual Property System for the Fourth Industrial Revolution

Outline of the Study Group's Report

April 19, 2017

**Ministry of Economy,
Trade and Industry**

1.(1)The Fourth Industrial Revolution and the Intellectual Property System.

<Report Ⅰ.>

Up until now

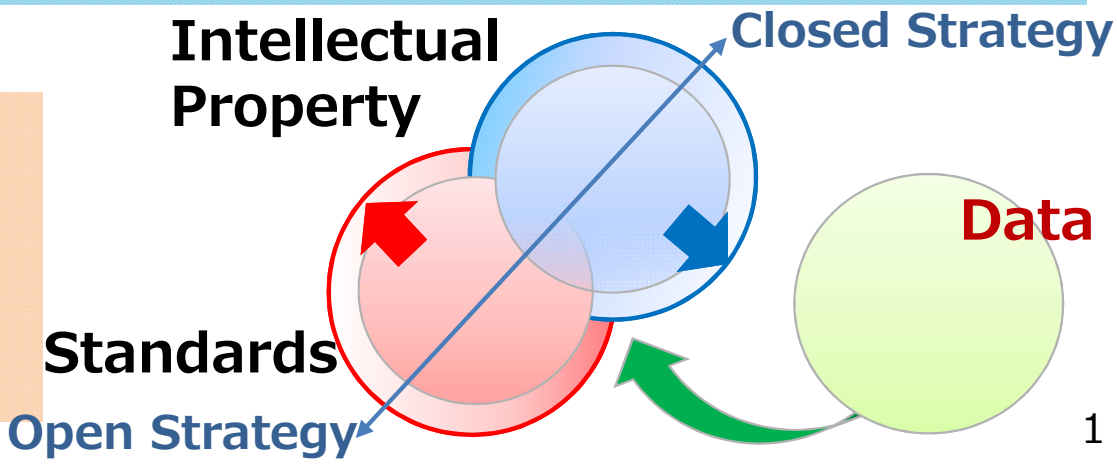
- Technologies concerning “things” are sources of competitiveness.
- Ensuring international competitiveness by establishing one’s proprietary technology while competing with many competitors in the same industry.
- Promoting so-called “Open & Closed Strategy” which combines the utilization of “standards” to expand markets and the exclusive protection of inventions as “intellectual property.”

Present day

- Progress of technological innovations epitomized by IoT, AI, and big data.
- “Data”, along with “data-analysis techniques” and “business models” using such data, has become sources of new competitiveness.
- “*Connected Industries*”: industrial communities in which new added value is created through the implementation of IoT where all devices and items are connected via the Internet.
- Necessity making profits and expanding businesses through open innovation.

From now

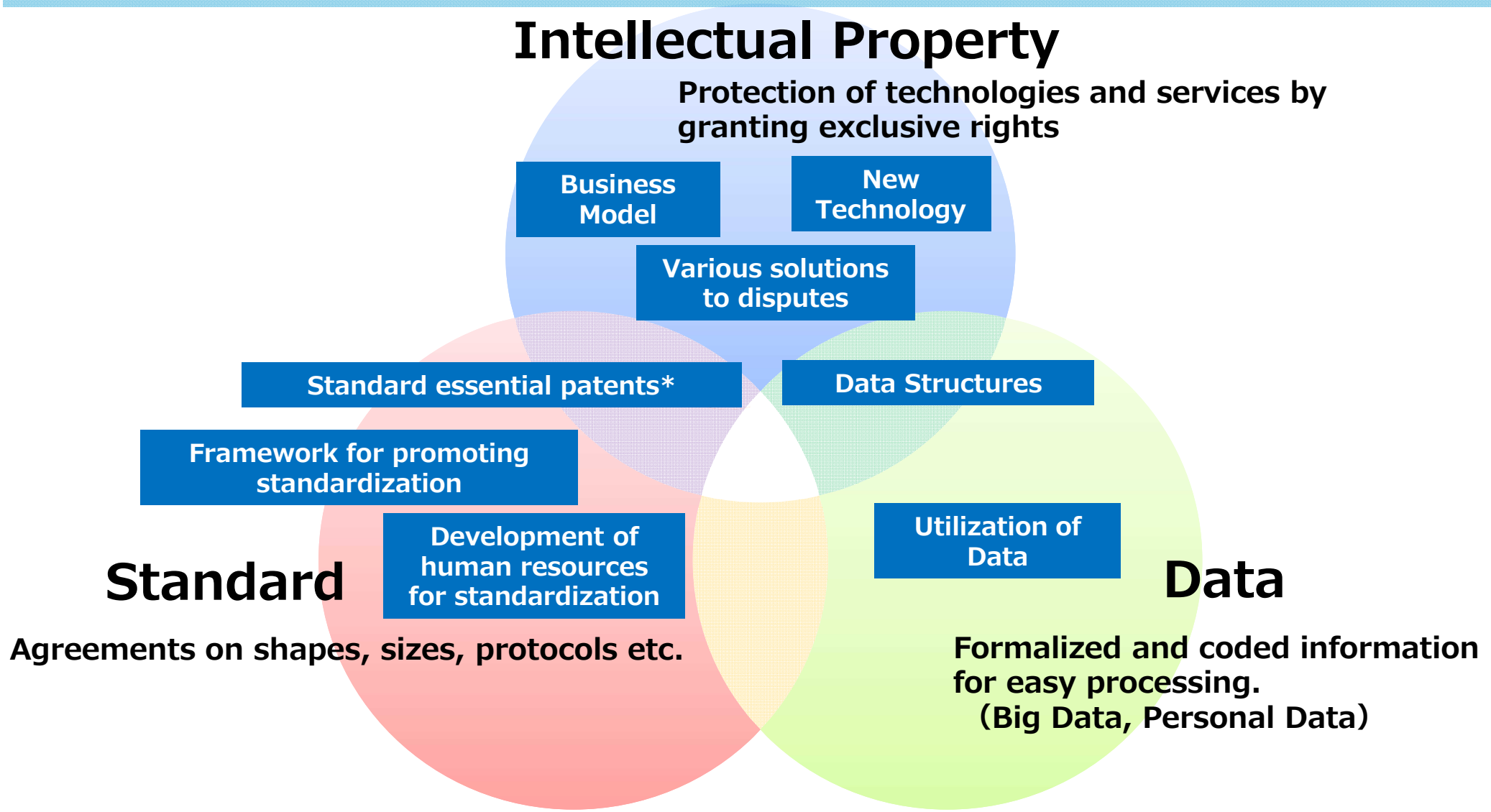
- Expanding and deepening targets of Open＆Closed Strategy are necessary.
- Three-dimensional comprehensive strategy including “data” in addition to “intellectual property” and “standards” are required.



1.(2) The Fourth Industrial Revolution and Intellectual Property System.

<Report Ⅰ.>

- Three-dimensional comprehensive strategy consisted of IP, data and standards is to be considered.



*Standard essential patents : Patents needed to comply with technical standards

2. Utilization of data

<Report Ⅱ.1, Ⅲ.1>

- Legal infrastructure for making use of data has been improving.
- On the other hand, there are insufficient measures to prevent unfair use of data.
- As legal framework for authorization to use and access data is uncertain, it is necessary to solely rely on contracts.

Utilization of data

Protection of data under the Unfair Competition Prevention Act

- Studying the possibility of amending the Unfair Competition Prevention Act
  (possible amendments)
  - Prohibiting the wrongful acquisition of data
  - Enhancing protection of data-encryption technology
  - Reducing burden of civil actions involving data-analysis techniques protected as trade secrets (cabinet order)

- Improving Guidelines on Trade Secret Management, and related material.

Utilization of data

Contracts dealing with authorization of use

- Conducting a study to establish guidelines to deal with the authorization of data utilization

(Issues to be considered)

- Ways to ensure appropriate protection of data and rules of contracts based on the actual state of data utilization and contracts on data between companies.

3.(1) The Industrial Property Rights System

＜Report Ⅱ.2, Ⅲ.2 (1) – (5)＞

- Future innovation will probably create original data structures.
- In line with the popularization of the IoT, there is an increasing number of patent applications for business-related invention, which offer added values by smartly connecting services and products.
- It is difficult to determine what requirements have to be met, in order to acquire patent rights for such original data structures and business-related inventions.
- New issues are arising due to advances in technological developments in AI, 3D printing, networking, etc.

Data structures

Clarification of proper handling of data structures

- Published case examples for examination of data structures which have patent eligibility (March 2017)
- Continuing to make efforts to further enhance predictability

Business Model

Intellectual Property for supporting business model based on the use of IoT

- Improving the environment in which patents can be steadily obtained and utilized (in FY2017)

(Specific Examples)

- Checking the Examination Guidelines on software-related inventions
- Collecting the use cases of patented business-related inventions
- Utilizing newly created patent classification for IoT-related inventions
- Establishing cross-sectoral examination group to respond to IoT technology

New Technology

Initiatives on New Technologies

- Clarifying patent rights protections against cross-border infringements.
- Handling inventions made by AI in the future in terms of industrial property rights.
- Handling data used for 3D printing in terms of industrial property rights.

3.(2) The Industrial Property Rights System

<Report Ⅱ.2, Ⅲ.2 (6)>

- Costs of managing intellectual property may increase due to the growth of inter-company collaboration in the era of IoT.
- Abuse of rights by patent trolls* has already been recognized as a systemic problem in the U.S.
- Frequent and prolonged disputes on the patents necessary for implementing standards concerning public infrastructure may have harmful impact on economy and industries.
- Small and Medium-sized Enterprises (SMEs) and startups especially, might encounter difficulties in negotiating and dealing with lawsuits.

Standard essential patents (SEPs)

Introduction of license award system for SEPs.

- Considering introduction of an ADR** system (license award system for SEPs) designed to deal with disputes on licensing of SEPs with due care of not unfairly harming the interest of patent holders.
- Government decides appropriate license fees in the ADR system.
- Conducting necessary study with a view to revise the Patent Act in 2018.

Various solutions to disputes

Consideration of introducing mediation system that enables conflicts to be settled earlier.

- Considering setting up an ADR system (mediation), which is especially user-friendly for SMEs, in order to settle disputes over license agreements and patent right infringements.
- Paying enough attention to the demarcation with existing Private ADRs such as the Japan Intellectual Property Arbitration Center, when designing the ADR system.

*Patent troll : A person or company who abuses patent rights to obtain excessive license fees or huge settlements.
**ADR (Alternative Dispute Resolution) : Means such as mediation to resolve conflicts without resort to litigation.

4. Enhancing Cooperative Framework and Developing Human Resources toward Achieving International Standardization

<Report Ⅱ.3, Ⅲ.3>

- Different industries have to cooperate with each other beyond the scope of their businesses, in order to quickly standardize.
- In Japan there is a lack of cooperative frameworks between industry and the public sector and a lack of skilled and experienced human resources for international standardization.

Framework for promoting standardization

Standardization among cross-sectional fields

- Enhancing cooperative framework between industry and public sector.

(Examples)
- Using “The New Market Creation Standardization System”*
- Cooperating with National Research Institute.

Developing human resources for standardization

Accelerating Development of HR for Standardization

- Implementing “The Three Action Plans for the Development of human resources for standardization”.**

(Examples)
- Increasing number of companies with CSOs (Chief Standardization Officers)
- Gathering information on strategies for making rules.

- Clarifying the role of patent attorneys as IP experts for standardization.

* Framework for standardization without requiring consensus of industry organizations within the country.
** Formulated this plan in January 2017 in the Working Group for standardization of human resources under the “Standardization Summit” in Japan.

5. Perspectives from Individual Industrial Fields, Small and Medium-sized Enterprises (SMEs), and Startups

<Report Ⅳ., Ⅴ.>

Initiatives in the individual industrial fields

Manufacturing

- Constructing the intellectual property portfolio, considering various business models that fully utilize new technologies such as edge-computing.*
- Promoting international standardization regarding data format in order to realize networked factories.

Mobility

- Rulemaking to protect against unfair use of vehicle data, etc. by third parties.
- Creating intellectual property strategies according to trends in patents by IT industry which has different business practices.

Health care・Medical care・Nursing care

- Rulemaking to protect medical technological data utilized between business operators.
- Promoting international standardization regarding data format for obtaining, saving, and storing information such as clinical data.

Appropriate measures to support SMEs and startups

- Supporting the obtainment of patent rights in both Japan and overseas and expansion of business activities overseas based on “Action Plan for Regional Intellectual Property Revitalization”(formulated in September 2016)
- Supporting market expansions by using “The New Market Creation Standardization”
- Promoting cooperation between and among major companies, SMEs, and startups et al.

*Edge computing: A technology of information processing which efficiently processes a large amount of data without being affected by disturbances in the communication environment; this is done by delegating high-level information-processing roles to user devices and by processing data in a decentralized way in each of the user devices.

【Reference】 List of Members of Study Group

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(The Japanese syllabary order; honorifics omitted)

【Reference】 List of Meetings and Themes of Discussion of Study Group

The Themes of Discussion
The 1st Meeting Oct.17(Mon.), 2016 ・Launch
The 2nd Meeting Nov.10(Thurs.), 2016 ・Ways to deal with each agenda item
The 3rd Meeting Nov.28(Mon.), 2016 ・Study on protection of data and database
The 4th Meeting Dec.15(Thurs.), 2016 ・Current state of automotive fields ・Current state of robotics fields
The 5th Meeting Dec.26(Mon.), 2016 ・Current state of healthcare and nursing-care equipment fields ・Current state of biotechnology fields ・Major points and further direction
The 6th Meeting Feb.6(Mon.), 2017 ・Framework for simple and prompt settlement of patent disputes ・Support for intellectual property in local communities and SMEs
The 7th Meeting Feb. 17(Fri.), 2017 ・Current state of information and communication equipment fields ・International standardization
The 8th Meeting Mar. 6(Mon.), 2017 ・Dealing with creations made by AI ・Measures to respond to cross-border infringements ・Current state of measures by Ministry of Internal Affairs and Communications
The 9th Meeting Mar.24(Fri.), 2017 ・Functional enhancement for handling disputes (Cooperation with Patent System Subcommittee) ・A review of draft report
The 10th meeting Apr. 5 (Wed.), 2017 ・Current state of Subcommittee on Protection and Utilization of Trade Secrets ・Compilation of report