### **An Employee Invention System to be Reformed for Promoting Growth-Accelerating Innovation**

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#### [Proposal]

In order to promote innovation that accelerates the reinforcement of industrial competitiveness for Japan, it is necessary to establish, as a part of the deregulation policy to be carried out under an economic growth strategy, an employee invention system under which the original ownership of the right to obtain a patent on an employee invention shall vest in the employer/company without any legal obligation to pay the value of the invention.

The Abe Administration, which was established at the end of last year, has regarded the revitalization of the Japanese economy as its most important policy commitment and has spelled out the basic "three-arrow" components of the "Abenomics" economic policy, which aims to fight the recent deflationary economy. These three arrows consist of (1) a bold monetary policy, (2) a timely and flexible fiscal policy, and (3) growth strategies aiming to promote business investment.

In particular, in order to strengthen Japan's industrial competitiveness, it is indispensable to devise and implement growth strategies with a focus on promoting R&D and innovation activities. Without such growth strategies, neither a bold monetary policy nor a timely and flexible fiscal policy could produce truly meaningful results, because such policies would merely increase national burdens and debts.

Innovation would allow us to turn new ideas into new products that are socially significant and valuable, causing profound social changes. Therefore, the key to Japanese industrial revitalization would be to accelerate innovation ahead of other countries. For this purpose, it is essential to enhance the competitive environment so that companies (i.e., the major players in industries) would not hesitate to make R&D investments and capital investments or to take predictable risks in the course of their business selection and concentration. At the same time, it is necessary to immediately remove "unclear, unreasonable burdens (including regulations, obstructions, risks,

etc.)," which hinder free economic activities of companies.

From this perspective, it is important to conduct a fundamental review of the provisions concerning employee inventions as a part of deregulation policies under the Abe Administration in order to enhance the Japanese intellectual property system so that the system can meet its original purposes. Given the urgent need for revitalization of the Japanese economy, such drastic measures are indispensable because said provisions prevent growth-generating companies from taking risks and impose "unclear, unreasonable burdens" on companies.

#### I. The current state of the employee invention system and related issues

#### (1) The current system bears uncertain, unreasonable burdens

Under the current employee invention system, any employee who has made an employee invention has the original ownership of the right to obtain a patent on the invention, while the company is required to pay "reasonable value" to receive the assignment of the right from the employee. Since the provision requiring the payment of "reasonable value" is regarded to be mandatory, companies, which are major contributors to innovation, are forced to compete in international markets, while bearing unpredictable "unclear, unreasonable burdens."

### (2) The revision of Article 35 of the current Patent Act (the Act of 2004) was insufficient

While the employee invention system was revised in 2004, there are still many pending cases over requests for the payment of the value of employee inventions under the former Act, which was effective prior to the revision. Despite the growing accumulation of judicial precedents, the calculation standards for "reasonable value" remain unclear and unpredictable.

Faced with a series of judicial cases over requests for the payment of large amounts of money representing the value of inventions and concerned about litigation risks, which came to be regarded as a serious corporate management issue, Japan made the 2004 revision after deliberations conducted by the Patent System Subcommittee of the Industrial Structure Council during the period from September 2002 to December 2003. Since the Subcommittee was requested to reach a conclusion within FY2003, the Subcommittee failed to sufficiently discuss what system shall be required from the standpoint of promoting innovation, although such discussions should have taken place. The failure to hold sufficient discussions was partly attributable to the existence of a situation in which multiple lawsuits were pending and judgments had not been finalized.

This suggests that the 2004 revision is nothing more than a "makeshift measure," in a sense.

The revision ensured the continued existence of the right to demand the payment of "reasonable value" for an employee invention and established a so-called "provision requiring the reasonableness of the process," which functions as a buffer because it requires a court to respect the standards for determining the value of an invention as long as the payment of the value is not found to be unreasonable "in light of circumstances in which negotiations between the employer, etc. and the employee, etc. had taken place in order to set standards for the determination of the said value."

However, the extent of the efforts companies should make in order to avoid lawsuits is still unclear. Since few example cases are presented to companies, companies' needs have remained to be unfulfilled. This indicates that uncertain burdens have been imposed on companies. Since it is considered that the standard for judging "unreasonableness" differs depending on the situation of each company, the preparation of guidelines, etc. would not work or solve fundamental issues.

### (3) The current employee invention system imposes burdens on companies that take risks

In a situation in which a company makes a certain decision, makes an investment based thereon, and gains the result of the investment, basic conditions for corporate activities, such as making profits and competing with other companies, may not be considered to be fulfilled unless companies are given full discretion in terms of the use, commercial exploitation, and disposal of investment results. Needless to say, such discretion is indispensable for companies to survive amid international competition.

However, the current employee invention system is not designed to allow companies that tackle challenges at their own risks to gain sufficient returns. Any company that has decided to take up and invest in R&D activities is forced to assume all of the innovation-related risks. However, an inventor (a constituent part of the company) who does not have to take any risks is entitled to receive excessive returns under law. Such an arrangement is unreasonable.

### (4) The employee invention system has decreased the international competitiveness of Japanese companies

These issues related to the employee invention system have caused many problems, such as decreasing companies' motivation to make R&D investments,

limiting open innovation, hindering free business activities and business restructuring, increasing the difficulty of designing an optimal incentive system for employees, causing unfairness among employees, and discouraging teamwork. In other words, the defective system has prevented innovation, which necessitates integrated efforts, and it has weakened the international competitiveness of Japanese companies.

Some people suggest that we should discuss the necessity of revision only after observing the trend in court cases filed under the Act of 2004. However, the current situation of Japan does not allow such a wait-and-see attitude. Since the 2004 revision, foreign companies have reduced R&D investments to Japan. Some foreign pharmaceutical companies, etc. have relocated their R&D centers from Japan to other countries. This indicates that the current employee invention system is one of the causes that have prevented Japan from gathering high-level intellectual power from all over the world in order to promote innovation.

#### II. Necessity for a fundamental revision of the employee invention system

#### 1. Perspective necessary to promote innovation

Based on the understanding described above, we find it necessary to make a fundamental revision of the employee invention system in consideration of the following two points.

# (1) The "unclear, unreasonable burdens" should be removed in order to increase corporate R&D investments and business management agility

In order to promote innovation, it is necessary to increase attractiveness as an R&D center by providing companies with a sound environment for R&D investments. It is also necessary to enhance business management agility. To achieve this goal, it is essential to remove "unclear, unreasonable burdens" imposed on companies that have made inventions based on the results of their R&D investments.

From the perspective of R&D investment, it should be guaranteed that companies, which voluntarily take risks and decide to take up and invest in R&D activities (investments in R&D staff employment and facilities, etc.), are entitled to have the right to obtain patents on employee inventions without any litigation risk. Without such guarantee, companies, both large and small, could be discouraged from making R&D investments. Companies, which in fact take risks and tackle challenges to make innovations, could be forced to scale down their development activities in Japan or to withdraw from Japan altogether in order to avoid "unclear, unreasonable burdens."

From the perspective of business management agility, the risk of being

requested to pay the value of an employee invention has prevented Japanese companies from taking an open innovation approach with overseas companies and conducting domestic and international M&A activities. Since it is permissible to file a request for the payment of the value of an employee invention for up to 10 years following the date on which such value of the invention becomes payable (the period of extinctive prescription for claims), a litigation risk would continue to exist for a long period of time. There have been some cases in which negotiations for patent sale or negotiations for corporate restructuring such as a spin-off or an M&A lingered on and eventually failed due to such difficult problems as which party should be held liable for the payment of the value of an employee invention and how to make a financial settlement with the employee.

## (2) It is necessary to give each company freedom and flexibility in designing an optimal, fair incentive policy for its employees

Companies need to make integrated efforts to make innovations. In order to facilitate such integrated efforts, it is important to give each company freedom and flexibility in designing an incentive policy. It is also important to allow the management of each company to design, at its own discretion, an incentive policy that is acceptable to the employees of different departments.

### (i) Creation of an environment in which an optimal incentive policy may be designed

It is indispensable for companies to make innovations based on the results of their R&D activities. Successful R&D activities of a company would require not only establishing an R&D strategy as a corporate strategy but also recruiting talented workers and undertaking effective measures to enhance the motivation of its employees, including the engineers engaged in R&D activities. Therefore, company's decisions as to how to treat employees and which incentive policy to implement are important factors in successful business management. On the other hand, given limited management resources available for investment, each company has to make a highly sophisticated management decision as to how to make effective investments for such incentives.

It should be noted that incentive policies differ depending on the situation of each company. Incentives may be given to organizations, teams, or individuals not limited to inventors. Incentives may take various forms, e.g., honorary incentives, including the grant of an award or a title, or a president's invitation to a dinner. Such

forms of incentive also include financial incentives, such as the payment of remuneration or the grant of stock options, etc. as well as better treatment. The timing for giving incentives is also important. Thus, it is necessary to create an environment in which each company can choose the most appropriate policy from these various options and implement it in a flexible manner.

However, the current employee invention system prevents companies from implementing the most appropriate innovation policies because it is inevitable for a company in the process of designing an incentive policy to pay greatest attention to how to reduce the litigation risk that is unavoidable under a system that imposes "unclear, unreasonable burdens" on companies. This indicates that there are two types of countries; that is, countries in which companies can design incentive policies with the aim of optimizing their effect of promoting innovation, and countries in which companies must design incentive policies with the aim of reducing litigation risk. Without doubt, the first is preferable to the latter from the perspective of promoting innovation. This is one of the reasons why the current employee invention system is detrimental to international competitiveness.

#### (ii) Creation of an environment where a fair incentive policy may be designed

It is important to design an incentive policy that employees find fair and acceptable.

The current employee invention system is often depicted by the media as an example of conflict between companies and inventors (employees). However, in reality, a greater conflict exists among employees (disparity in treatment). As the value of an invention rises, such disparity would grow, increasing the sense of unfairness among employees.

Innovations in companies cannot be achieved solely by the efforts of an individual employee but by integrated organizational efforts. Under the current system, the value of an employee invention is legally required to be paid only to the inventors listed on a patent application, despite the fact that there are many other employees working to achieve innovations. Such a system shows complete disregard of a balance between inventors and other employees within the same organization, and it could hinder innovation by discouraging teamwork. Furthermore, it has been pointed out that the existence of the right to request the payment of the value of an employee invention has encouraged researchers to avoid basic research and select research subjects that allow researchers to obtain the results of development activities more easily. It has also encouraged researchers to keep information to themselves in order to monopolize

inventions or increase their ownership interests in inventions.

In any case, in order to promote innovation, which requires integrated organizational efforts, it is necessary to create an environment in which companies can design an incentive policy that is able to ensure a sense of fairness among employees.

### 2. Corporate activities to promote innovation and a fundamental revision of the system in consideration of the nature of employee inventions

## (1) The original ownership of the right to obtain a patent on an employee invention shall vest in the employer/company

No employee invention may be made without the intention and investment of a company. Employee inventions can only be made when the employer requests a constituent member (i.e., an employee) to carry out the specific act of making an invention. Therefore, the employer (i.e., the company) should be regarded as the original owner of the property rights to employee inventions (i.e., the right to obtain a patent) because it is the employer that has taken the related risks.

However, under the current employee invention system, even if the success of the commercialization of an employee invention is attributable to the R&D investments and capital investments made by the company at its own risk (the success of commercialization also depends on many other factors unrelated to the inventor's efforts, such as luck), only the inventor has the right to demand the ex-post payment of the value of the employee invention, including the profits generated from the commercialization of the invention. This situation has discouraged corporate investments and has been found unreasonable from an economic perspective. This problem will be solved by designating companies as original owners.

Every employee invention made at a company may be regarded as an outcome of R&D activities that have been conducted by employees based on needs and information conveyed by business units. During such R&D activities, employees received salaries from the company for their work, cooperated with other employees under the spirit of teamwork, and used the company's facilities, materials, funds, etc. under the supervision of the company. Therefore, it is natural to consider that the original ownership of the property rights to an employee invention belongs to the company. Based on this understanding, the treatment of the right to an employee invention may be regarded as similar to the treatment of work for hire.

### (2) The corporate management should be allowed to decide, at its own discretion, how to offer remuneration for an employee invention and should not be required

#### to pay the value of an employee invention by law

Since companies have the original ownership of the right to obtain a patent on an employee invention, it is natural to consider that companies should not be required to pay the value of the invention by law. This means that companies should be allowed to give incentives for inventions at their own discretion.

Consequently, companies facing intensive global competition would start exercising their management discretion without any legal restrictions and actively devising and implementing various and diverse incentive policies for the purpose of securing competent workforces and maximizing their performance in order to increase their organizational ability to make inventions.

In sum, in order to make Japan the world's most successful country in terms of innovation, it is necessary to establish a system that is most suitable to the industrial infrastructure, i.e., an employee invention system that considers corporations (companies) as the original owners of the right to obtain a patent on an employee invention and does not require the payment of the value of the invention by law.

### III. A fundamental revision of the employee invention system would significantly accelerate economic growth

If such a fundamental revision completely removes "unclear, unreasonable burdens" and allows the management of each company to fully exercise its freedom and agility, Japanese companies would become more motivated to invest in the promotion of innovation. Consequently, advanced technologies invented through integrated efforts of companies would lead to the development of innovative goods and services and would thereby enhance Japan's international competitiveness and further accelerate its economic growth. Moreover, Japan's competitiveness (and attractiveness) as an R&D center would increase as well, which would encourage overseas companies to make investments in R&D activities, etc. in Japan. This would also contribute to the promotion of innovation.

At the same time, companies would not be able to promote drastic innovation unless they motivate individual employees to the greatest extent possible while simultaneously making investments in innovation activities. The fundamental revision proposed in this paper would allow Japanese companies to freely design incentive policies at the discretion of their management and to attract talented workers from all over the world. Moreover, as a result of the implementation of various measures that ensure fairness, the motivation of not only inventors but also other employees involved

in innovation activities would be further enhanced. Consequently, companies would be able to further increase their integrated efforts, strengthening their international competitiveness.

In this way, the fundamental revision of the employee invention system proposed in this paper would create synergy between companies and employees, promoting innovation in the Japanese industry as a whole. By generating profits from those innovations, Japan would be able to accelerate its economic growth.

#### (Attachment)

#### 1. The provisions of Article 35 of the Patent Act (the Act of 2004)

- (1) An employer, a juridical person, or a national or local government (hereinafter referred to as an "employer, etc.") where an employee, an officer of such juridical person, or a national or local government employee (hereinafter referred to as "employee, etc.") has obtained a patent for an invention which, by the nature of the said invention, falls within the scope of the business of the said employer, etc. and was achieved by an act(s) categorized as a present or past duty of the said employee, etc. performed for the employer, etc. (hereinafter referred to as "employee invention") or where a successor to the right to obtain a patent for the employee invention has obtained a patent therefor, shall have a non-exclusive license on the said patent right.
- (2) In the case of an invention by an employee, etc., any provision of any agreement, employment regulation, or any other stipulation providing in advance that the right to obtain a patent or that the patent rights for any invention made by an employee, etc. shall vest in the employer, etc., or that a provisional exclusive license or an exclusive license for the said invention shall be granted to the employer, etc., shall be null and void unless the said invention is an employee invention.
- (3) Where the employee, etc., in accordance with any agreement, employment regulation, or any other stipulation, vests the right to obtain a patent or the patent right for an employee invention in the employer, etc., or grants an exclusive license therefor to the employer, etc., or where the employee, etc., grants a provisional exclusive license therefor to the employer, etc., in accordance with any agreement, employment regulation, or any other stipulation, as long as an exclusive license is deeded to have been granted under Article 34-2, paragraph (2), the said employee, etc. shall have the right to receive reasonable value.
- (4) Where an agreement, employment regulation, or any other stipulation provides for the value specified in the preceding paragraph, the payment of value in accordance with the said provision(s) shall not be considered unreasonable in light of circumstances in which negotiations between the employer, etc. and the employee, etc. had taken place in order to set standards for the determination of the said value, the set standards had been disclosed, the opinions of the employee, etc. on the calculation of the amount of the value had been received, or in light of any other relevant circumstances.
- (5) Where no provision setting forth the value as provided in the preceding paragraph exists, or where it is recognized under the preceding paragraph that the amount of the value to be paid in accordance with the relevant provision(s) is unreasonable, the amount of the value under paragraph (3) shall be determined by taking into consideration the amount of profit to be received by the employer, etc. from the invention, the employer, etc.'s burden, contribution, and treatment of the employee, etc., and any other circumstances relating to the invention.

#### 2. Legal systems of other countries

### (1) Ownership of employee inventions or the right to file a patent application for an employee invention

A comprehensive examination of the legal systems of other countries has revealed that two types of countries, i.e., countries that recognize that the original ownership of an employee invention or the right to file a patent application for the employee invention belongs to the employer (Group A in the following table) and countries that do not have any particular provisions concerning employee inventions (Group C in the following table), share the same understanding in substance because the latter group recognizes the employer's ownership in substance under common law, contracts, etc. It should be noted that Germany, which belongs to Group B in the following table, has become increasingly similar to Group A and Group C because the recently revised system recognizes the employer's ownership unless the employer presents an objection.

Ownership under the provisions concerning	Countries
employee inventions	
A. The ownership of an employee invention	Brazil, Singapore, China, U.K., Austria,
(the right to file a patent application)	Spain, Netherlands, France, Italy, Russia,
belongs to the employer.	Taiwan, Switzerland, etc.
B. The original ownership of an employee	Japan, South Korea, Germany, etc.
invention belongs to the employee, while	
a patent or the right to file a patent	
application may be transferred to the	
employer under a regulation or contract.	
C. No provisions exist concerning employee	U.S., Canada, Australia, New Zealand,
inventions (the employer's ownership is	South Africa, Denmark, Sweden, Norway,
recognized under an employment	Finland, etc.
contract, common law, etc.).	

(Note) In the U.K., France, Spain, Italy, Brazil, Singapore, etc., the original ownership of an employee invention itself belongs to the employer.

#### (2) The nature of the money paid for an employee invention

In the case of the countries with no provisions concerning employee inventions (those that belong to Group A, 1), i) in the following table) where the employer is not legally liable for making any payment and may decide, at its absolute discretion,

whether to offer a financial incentive and may freely specify any incentive in a contract and, in the case of the countries that take the same stance by stipulating to such effect by law (those that belong to Group A, 1), ii), the payment liability may be determined based solely on the type of the employment relationship or in accordance with the principle of the freedom of contract.

In contrast, some countries (those that belong to Group B, 1) in the following table) have adopted a system that considers that the remuneration for an employee invention is covered by the already prescribed amount of remuneration (salary, etc.) and that additional remuneration should be paid for an invention with outstanding value. However, the application of this system is extremely limited. A request for remuneration was accepted only in a few cases in the U.K.

Furthermore, some countries (those that belong to Group B, 2) in the following table) have adopted a system that requires companies to pay remuneration or additional remuneration for an employee invention and specifies that the ownership of any employee invention and the right to obtain a patent thereon belongs to the employer. Under this system, the nature of the payment of remuneration is different from that of the payment of the value for assignment of the property rights to an employee invention. The amount of remuneration etc., is set at a level that is commonly considered reasonable. In most cases, the amount of remuneration is determined based primarily on a contract, regulation, etc. Therefore, it is exceptional to file a lawsuit over the amount of the value of an employee invention.

Nature of	the money paid	Countries
A. Financial	1) Paid as a financial	i) Employment contract: U.S.,
incentive	incentive, etc., at	Canada, Australia, New Zealand,
(remuneration) =	discretion	South Africa, etc.
The amount and		
other aspects of		ii) Law (no payment for the value of
the payment are		an invention): Brazil, Singapore, etc.
politically	2) Paid as a financial	China (under the invention
determined.	incentive under law	promotion policy)
(political in		
nature)		

B. Remuneration,	1) Paid as a special	U.K. (several court judgments),
compensation =	addition to employee	Austria, Spain (no court judgments),
additional	remuneration	Netherlands, etc.
payment of		
employee	2) Paid as work	France (additional remuneration; it
remuneration	remuneration	should be specified in collective
(salary, wage)		employment contracts, employment
		regulations, or individual
		employment contracts), Italy (fair
		value; in cases in which it is not
		specified in any contract or
		regulation), Russia (reasonable
		remuneration; it should be specified
		in a contract), Taiwan (reasonable
		remuneration; it should be
		determined based primarily on a
		contract)
C. Compensation,	Determined by the	Japan (reasonable value), South
value = paid in	estimated property value	Korea (compensation)
return for the	of the object or subject	
assignment of an	matter of each transaction	
invention	(= the estimated property	
	value of a patent right	
	itself)	

(Note) In Germany, it is interpreted that an invention is made not only as a result of performing regular job duties but also as a result of making special efforts, and therefore that a part of the profits that the employer has gained by exercising the exclusive rights to the invention should be paid to the employee as compensation. Therefore, the purpose of the system is to provide a financial incentive or additional remuneration.

Germany has established detailed guidelines for the calculation of compensation. Ironically, however, it has been pointed out that complicated procedures have led to an increase in the number of disputes. In fact, not a few companies have relocated their R&D centers from Germany.