Patent Rights of the Defence and Security Equipment in Indonesian National Armed Forces

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The form of protection provided by the state through the Law No. 13 of 2016 concerning Patent towards the Defense and Security Equipment (DSE) related to the state defence and security, explicitly and implicitly regulates the Government's role to execute its patent in Indonesia under the consideration of "related to the state defence and security" as defined in the Article 109 of the Patent law Paragraph 1 alphabet A. Since the implementation of patent by the government with respect to the state defence and security, the patent holder 'cannot' use its exclusive rights. Indonesia needs patent management hosted under the Ministry of Defense, as practised in China and South Korea, in order to keep the confidentiality of DSE as a patent object and to provide moral and economic protection towards the inventor of DSE as a patent, since the government has taken the ownership of DSE's patent.

**Key words:** Legal Protection, Inventor of Patent, DSE

Background

The implementation of state defence entails all activities necessary to execute state defence policy in the sense of effectuating the strategic objectives of the state defence, which is: to materialise a state defence that is capable of facing threats; manifesting a state defence that is capable of handling security in the maritime areas, security in the land area, and security in the aerospace areas; actualising a state defence capable in taking the role to create peace in the world; creating a robust, independent, and competitive industry of defence; and emerging the awareness and nationality for every person of Indonesian citizens (Minister of Defense Regulation No. 19 of 2015).
The Defense and Security Equipment (DSE), as explained in the regulation of the Minister of Defense No. 44 of 2016 on The Production Lines of the Defense and Security Equipment of the Article 1 paragraph 1, means: "... all equipment to support the state defense and security and order." At the same time, the product of DSE consists of the main product, main and supporting component, component and proponent and the raw materials resulting from the development, product design, and examination produced by the Defense Industry (Art. 1 No. 1-2 of the Minister of Defense Regulation No. 44 of 2016).

The form of protection provided by the state through the Patent Law towards the DSE in connection with the state defence and security is getting better compared to the previous Patent Law which only governs the Implementation of Patent by the Government solely in the health sector. However, Law No. 13 of 2016 concerning Patent is still in need of improvements notably on the application of the patent towards the DSE in its connection with the state defence and security.

The Patent Law explicitly and implicitly regulates the Government's role to execute its patent in Indonesia under the consideration of "related to the state defence and security" as defined in the Article 109 of the Patent Law paragraph 1 alphabet A. The Article 109 paragraph 1 is meant for the government to have authority over the patent that has an important significance to the implementation of the state defence and security, which by itself, is referring to the patent given in Indonesia only.

Just like any other intellectual property rights, patent is the form of individual property that can also be owned, sold, licensed, and transferred either by individuals or by agencies/institutions. In the patent certificate, the name or names of the inventor should have still been written even if the right to control such patent then owned by another party, for instance, the government. Likewise, the right to control the government's patent, where the government usually employs the inventor, the patent certificate must have put the name of the individual (the inventor). This invention produced by an inventor who works for the government is what we call as the inventor in the scope of official duties.

Currently, the Patent Law has not made any regulation concerning the inventor with the status of TNI soldiers in his official duties to the Research and Development Bureau of TNI as well as the Ministry of Defense. The legislator only regulates invention as an implementation object of patent by the government. This is made by the consideration of prevention to such inventions related to the DSE, to not fall into the hands of the enemy or misused by the irresponsible parties, that might potentially disrupt the stability of state defence and security.
If the Patent Law has the intention to protect the "defense and security interests" by regulating government's authority to execute its patent in Indonesia, according to the consideration of "with regards to the state defense and security", then to balance, it must be followed by the awareness to manage and 'raise morale' for all citizens, as well as the confidence of self-strength to ensure state security (Berkowitz, 1965).¹

Furthermore, in the implementation to improve the skills, expertise, as well as human competence and its organisation, each institutional element of science in the Research and Development Bureau for DSE is responsible for developing the structures and level of expertise, the career path of the human resources, as well as implementing a fair system of appreciation and sanctions in the working environment, in accordance with the necessity and advancement of science and technology.² Based on the background above, the author is very interested and concerned to the study concerning "Legal Protection to the Inventor of Patent Rights of the Defense and Security Equipment (DSE) in the Scope of Indonesian National Armed Forces and the Ministry of Defense with respect to the Defense and Security Interests. "Such background of issues has led the author to determine the research issue for this study as follows: First, How is the Principles of Protection for the Inventor of DSE in the scope of Military Research and Development Bureau of TNI as well as Ministry of Defense? Second, What is the Applicable Concept in the Management of the DSE as an Invention in Indonesia?

**Research Methods**

Based on the issues studied, this research shall be considered as legal research. This study is using the statute approach, historical approach, and comparative approach. The type of research chosen in this regard is juridical normative. It means that this research refers to legal norms in the national legislation. This choice of type is in line with the statute approach. The character of the research is descriptive juridical analytical. This approach is used to review and analyse the secondary data related to the research materials in the form of primary legal materials and secondary legal materials that emphasises on the secondary data.

To complement the literary research and as additional data, the author made a direct interview with selected resources using a pre-determined interview guideline. The selected resources in this regard are the DSE's inventors in the scope of the Ministry of Defense and TNI as well as the officials relevant to the decision-maker for the policy in the field of patent law.

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¹ According to Berkowitz, State Defense is defined as “the ability of certain people to protect its internal value from outside threat.” (Berkowitz, 1965).
² Article 12 of the Law No. 18 of 2002 concerning National System of Research, Development, and Implementation of Science and Technology.
Results of Research and Discussion

The Protection Principles towards the DSE Inventor in the Indonesian Research and Development Bureau of TNI and the Ministry Of Defense

First, the principle of bottom-Up innovation through simple patent. The understanding of the DSE patent regulated under the Patent Law and the regulations issued by the Ministry of Defense and TNI is more lenient to the products instead of the process, which contains know-how that must be protected. DSE products are made through the execution of the steps of necessity analysis and feasibility study to be made as a reference and as a basis for the creation of Operational Requirement (Opsreq). Opsreq is an operational requirement determined by the Ministry of Defense, the Indonesian National Armed Forces and the User independently and jointly, that needs to be fulfilled by the DSE product to perform the determined operational mission (See Regulation of Minister of Defense of the Republic of Indonesia No. 44 of 2016).

In the course of the defence industry in Indonesia, the emergence of innovation has slowly changed from the assumption of genius individuals as the main groundbreaking source of technology, from the adaptation of tactical application into a certain technology ordered textually by the superior. In its turn, this has ultimately weakened the critical role of individual and organisational culture in the process of innovation. The personnel of Research and Development Bureau in the Ministry of Defense and TNI were 'dictated' in such a way by the government to produce a product without any form of legal protection, either morally or economically.

From the policy made, there is no single provision that governs the legal protection to the inventor from the military scope as the central actor in the development of the defence industry. From the facts above, we can see that the bureaucracy of organisation has consistently developed using the standard of approach in resolving common problems. In addition, the huge number of technological advances made through a top-down organisational policy, cannot predict the resilience of the organisation to fight for the technology. The military might be promptly succeeding in adopting a new platform that has a major technological change, however, failing (or too slow) to adopt an innovation with gradual improvement. Terms as "radical" and "revolutionary" do not have too many meanings if it is applied to predict the response of an organisation against an innovation.

Due to the generalised top-down organisational policy and innovations, the amount of DSE innovation around the TNI that enters the Research and Development Bureau of the Ministry of Defense out of the research results, still dwelling in 4-7 prototypes/year and not all of such
number can make it into the first article, let alone proceeding to the production stage in the defence industry.

The government tends to use the hypothesis to the conservative culture towards the innovation that soldiers must do; this makes them treat innovation as a monolithic phenomenon, whereas it is clearly seen from the rules made. According to the author, successful innovation is a process where a particular aspect of a situation develops, is poured into soldier's tasks through his creative ideas which are resulting from his empirical experience. The task of the government is to summarise all of those ideas into a DSE product to be applied in the defence industry (bottom-up principle). The hypothesis to the conservative culture focusing on the monolithic character will impede the generation of innovative ideas. This military culture has execution orientation; hence, effective innovation is the one implementing the innovation from the soldiers backed-up by the government.

The Ministry of Defense must have to pay attention to the development of simple, innovative ideas that can be applied in the defence industry to support the fulfilment of the needs for DSE by facilitating the growth of the defence industry and the national industry related to the field of defence. This is an implementation of Article 20, paragraph 2, of the Law of the Defense of the State, which stipulates that all national resources in the form of human resources, natural and artificial resources, values, technology and funds can be utilised to improve the state defence capability.

Second, the Principle of Reasonable Return. Article 115 paragraph 1 on the Performance of Patent by the Government as referred in Article 109, paragraph 1 and Article 113 paragraph 1 shall be made by giving a reasonable return to the Patent Holder. In this regard, the reasonable return means a compensation rather than a royalty fee; therefore, a reasonable return must be given.

This must be done by the Indonesian government as a form of appreciation to DSE investors. Eddy Damian states: "The Five Principles/Pancasila as the foundation of Indonesia regulates in the fifth principle, concerning the social justice for all Indonesian people (Damian, 2002, pp. 29-30). The fifth principle of the Five Principles/Pancasila is becoming the philosophy of life of Indonesian people, and it states that the foundation of the Republic of Indonesia is imbued with amicable and communal spirits. The role and existence of individual people are not obliterated or disregarded at all. It is proven by honours given to other people's rights and the community's appreciations for the result of individual creations and also the maintenance to the balance between rights and obligations."

According to the Patent Law, in case that the relevant patent holder does not agree with the amount of the remuneration given by the government, the disagreement may be filed in the
form of claim to the Commercial Court. The examination process of the claim does not stop the execution of patent by the government. This understanding includes the final claim; the execution of the right must still be in operation. Likewise, we must also note that the subject matter claim must be concerning the amount of compensation, not the permissibility of the self-execution of the patent by the state. Since the answer for the latter is clear if the state requires so without undue delay.

According to the author's opinion, even if the TIN is to be considered the same as the Civil Servants as regulated under the Article 13 paragraph 1 of the Patent Law, the provision on the remuneration payment to the Civil Servants cannot be applied to the TNI, since instead of the employment agreement, TNI acknowledges 'Official Order' better. Likewise to the provision on the rights to submit a claim to the Commercial Court, in case that the remuneration given by the government is not according to the expectation, it is highly impossible for a military which holds the status as the Instrument of a State to execute such an act.

**A Concept Applicable In the Administration of DSE Invention In Indonesia**

**First,** the Formation of the Management Institution for the Defense's Patent, Article 30 of the Law No. 16 of 2012 concerning the Defense Industry, regulates that research and development, as well as the fabrication related to the formulation of the technological design for the DSE, must be confidential. The confidentiality nature is enacted by the CPID in accordance with the rules and regulations. Through the CPID, the government should have had a working unit administering the DSE patents.

The working unit may act as a patent consultant would, it is expected that this unit may help the soldiers to register patent in the Directorate General of Intellectual Property. Moreover, the working unit may actively coordinate with the Directorate General of Intellectual Property to obtain information on a potentially important patent registry for the defence and security, to enable them to advise the Minister of Defense to expropriate the execution of the patent to the government before the patent is announced by the Directorate General of Intellectual Property. This facility is expected to encourage people to create technological innovation, which in its turn shall be able to increase the national productivity notably for the development of the defence industry based on the Intellectual Property Rights.

The administrator of DSE patent is government official given the authority to handle and be responsible for the administration of the DSE patent. The process of management of the DSE patent is started after the registration of the invention, the management institution for the DSE patent shall decide the level of confidentiality of the said invention. The administrator of the confidentiality of the DSE may suggest a consideration to the head of the institution in...
determining the level of confidentiality of the DSE patent, as practised by China and South Korea.

The Minister of Administration for the Defense Procurement Program shall regulate the management and distribution of the information on the science and technology of the state defence, other than the ones hard to disclose due to military purposes. It shall be conducted in accordance with the administration policy and the distribution of national awareness on the science and technology in the Framework of Law concerning Science and Technology.

Bearing in mind that the administrator of DSE patent has tasks and obligations demanding for certain skills and a heavy responsibility for the job. He will need certain classification such as the requirement to have expertise certificate in the protection and management of the DSE confidentiality, and the necessity of protection and compensation for his work. The protection referred here is in the form of physical and mental protection for the DSE patent administrator and his family as well as adequate compensation for his work to ensure the welfare of the inventor of DSE patent.

Second, the Restriction of the Confidentiality Value of the Patent Object of the Government, in the commentaries of the Article 78 of Patent Law stipulates that the "national interest" means a matter or an action that has an interest in ideology, politic, economy, social and cultural, defence and security, energy, technology and other forms of interest, executed to achieve the national purpose of Indonesian people as stated in the 1945 Constitution of the Republic of Indonesia. The essence of the patent protection is in the object of the formulation of the claim, and it does not merely base on a narrow interpretation of the claim's words. The scope of protection given by a patent to DSE invention will be highly determining for the interest of the inventor, technology, economy, as well as the state security and defence. However, currently, the understanding of 'national interest' for the DSE patent has not yet had a clear formulation of value; hence, the execution might be expropriated by the government.

Patent value is the significance and positive usability of patent for the subject of the right. In short, a patent value is the real manifestation of technology which has been registered as patent in an exclusive implementation and resulting into earning of excess profit for the patent subject derives from the usability value of the registered patent. In the modern era, the use of patent is getting more and more complex; this is because it correlates with all aspects of life. Hence the motivation of behaviour in patent is becoming complex and dynamic. The subject of the right has diversified orientation in viewing the patent value, some orient to the direct profit through the transaction, strategic value, or for the satisfaction of personal spiritual, etc.
The author considers that as the institution authorised to determine the confidential character from a process or a product related to the DSE, for the defence patent, the CPID may use the following parameter of value:

1) Military value. This refers to the effectivity and role of the patent for state defence patent in the field of DSE.
2) Technical value. This is a manifestation from the technical content of the characteristic of patent for the state defence, which is reserved as the requirement of the registered patent.
3) Economic value. This value is directly resulting from the patent license and transfer agreement, which may be referred to as 'asset value'.
4) Legal value. This value is made to protect the innovation achievement of an inventor in the form of patent right; hence, the inventor can defend his invention legally.
5) Social value. This value is a positive stimulant, and it has the influence to the development of the society through the implementation of patent, military-to-civil and other methods, that may be summarised as 'promotion value' or 'impact value'.

The urgency of military interest is used as a parameter to evaluate whether a technology invention is utterly necessary to enhance the combat skill of a soldier and to increase the manoeuvre system in battle. We can determine that the patent that may be expropriated by the government are the technologies scores 81-100 points in the parameter value; it must fulfil most of the parameters above. Meanwhile, to have diversification or spin-off, a technology must achieve at least scoring 50-80 points in the parameter. In contrast, patent that has general characteristic outside of military interest are the ones that achieve scores of 0-49 points in the parameter. The author believes that the clear parameter on the confidentiality character of DSE leads to a balance between the national interest and legal protection to DSE inventors.

This is in accordance with Bentham's opinion that defines utility as something that brings benefit, profit, delight, and happiness, or something that prevents damage, un delightful, crime, and unhappiness. The strict formulation of patent object enforceable to the government, the expediency value will elevate creating the happiness of individual and happiness of the community (See Kitchener, 2000).

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3 Compare: By utility is meant that property in any object, whereby it tends to produce benefit, advantage, pleasure, good, or happiness, (all this in the present case comes to the same thing) or (what comes again to the same thing) to prevent the happening of mischief, pain, evil, or unhappiness to the party whose interest is considered: if that party be the community in general, then the happiness of the community: if a particular individual, then the happiness of that individual. Jeremy Bentham, An Introduction to the Principles of Morals and Legislation, (See Kitchener, 2000, p. 14)
Conclusion

1. The confidentiality character of the Patent Law connected to the formulation of DSE technology design which is strategic for the defence and security are known to the government, does not include the regulations to invention registered in patent by the inventor in a foreign patent institution, unknown to the government. Hence the Patent Law has to explicitly formulate the prohibition to register patent overseas.

2. The Ministry of Defense should have to pay attention to the development of simple, innovative ideas (simple patent) that can be implemented in the defence industry to support the fulfilment of DSE necessity by facilitating the growth of the industry of the state defence and security related to the field of defence.

3. Necessary to have a *Sui Generis* regulation on the implementation of DSE patent in the scope of TNI and Ministry of Defense, as practised by developed states, as a specific regulation to form legal protection for the soldiers as the inventor, to have each result of the intellectual creativity in the field of DSE be able to manifest the national interest.

4. The CPID must issue a more technical regulation, hence there shall be a definite boundary for the product or process of DSE invention, which must be kept as the state confidential information, in full, in half, can be diversified/spin-off, and it is time for the DSE invention to become public property.
REFERENCES

A. Books


**B. Journal Article**


**C. Rules and Regulations**

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Law No. 13 of 2016 concerning Patent.


Minister of Defense Regulation No. 44 of 2016 concerning the Defense and Security Equipment Production Line.


**D. Webpages**


