Keidanren
Policy & Action

Proposal for Execution of Defense Industry Policy

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Keidanren

Keidanren has been making proposals for reinforcement of defense production capability and technological base and promotion of international joint development and production of equipment. The coordination on defense equipment and technical cooperation with Europe, U.S., and Asian countries have been proceeding since “The Three Principles on Transfer of Defense Equipment and Technology"[1] had set up by the Government of Japan in the last April. Keidanren has also been exchanging opinions with parties concerned with defense of each country.

Under these circumstances, as a part of the reform of the Ministry of Defense, the 2015 budget of the Ministry of Defense includes the establishment of a new Acquisition, Technology, and Logistics Agency as its extra-ministerial bureau for effective and efficient procurement of equipment, international defense equipment and technology cooperation, etc.. On June 10th this year, the Act for Establishment of the Ministry of Defense was revised and Acquisition, Technology, and Logistics Agency[2] will be established in October.

So Keidanren have formulated "Proposal for Execution of Defense Industry Policy" as follows in order to reflect the opinions of the industrial sector in the policy implementation of Acquisition, Technology, and Logistics Agency.

1. Current state of the defense industry and environmental changes

(1) Current state of the environment around Japan

Japan’s security environment has been becoming severer due to the threats of ballistic missiles and nuclear weapons of North Korea as well as broad and rapid reinforcement of military force of China, reactivation of activities in the sea around Japan by Russia, etc.. Also Japan is required to make

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[1] Arms exports have been banned totally in effect under the conventional Three Principles on Arms Exports, etc.. The Three Principles on Transfer of Defense Equipment and Technology changed this policy and decided to manage transfers of defense equipment based on the three principles: (1) Clarification of cases where transfers are prohibited, (2) Limitation to cases where transfers may be permitted as well as strict examination and information disclosure, and (3) Ensuring appropriate control regarding extra-purpose use or transfer to third parties.

[2] The number of staff is about 1,800. Among them, the number of clerks, engineering officials, etc. is about 1,400 and that of SDF members is about 400.

international contributions by "Proactive Contribution to Peace" based on the principle of international cooperation shown in National Security Strategy including disaster relief operations, etc..

If the security-related bill under deliberation in the Diet is passed, the international roles of SDF will expand. The roles of the domestic defense industry, which supports the activities of SDF, will become more important and a mid-and-long term strategy including the viewpoint of securing of international competitiveness, business continuity, etc. is required to maintain and reinforce the defense production and technological base.

(2) Current state of defense production capability and technological base

Since the Japanese government has no arsenal, private companies have the defense production capability and technological base to support the development, production, maintenance, and operation of defense equipment. This is the foundation that Japan can maintain its capabilities to uniquely develop and produce excellent equipment.

The decrease in the defense-related expenditure stopped in 2013, but the budget has not increased for procurement of the major domestic equipment such as aircrafts, ships, vehicles, firearms, and ammunition, which have direct impacts on the maintenance and reinforcement of the defense production capability and technological base. Especially under the current Medium Term Defense Program, expensive equipment including Osprey and AAV7 (Amphibious Assault Vehicle) are introduced from overseas in short term and the procurement of domestic equipment is decreasing drastically.

The ratio of the defense business in the domestic defense-related companies is low and the business has been continued sharing and utilizing the resources of the commercial sector, but it is difficult to compensate the fixed costs and secure appropriate profits and cash flow for maintenance of the defense production capability and technological base due to these budget circumstances.

The development and production of defense equipment require special and high level skills, technologies, facilities, etc.. Investments in technology development, maintenance of base, etc.. corresponding to the defense demands requires predictability to some extent, but the mid-and-long term measures and roadmap are not quite clear.

Under these circumstances, some companies have withdrawn from the defense-related business. Once the base is lost, it will be difficult for

companies to restart the business and thus the technological advantages which have been cultivated so far will be lost. Even though the government will support, to recover the base such as personnel, technologies, facilities, and business will require a long time and massive costs.

Therefore, it is very severe to maintain the domestic defense production capability and technological base and to continue the defense business.

(3) Progress regarding "The Three Principles on Transfer of Defense Equipment and Technology"

Under the Three Principles on Transfer of Defense Equipment and Technology, for democratic countries which share the values with Japan, international cooperative development and production of equipment is promoted with European countries, U.S., etc. and equipment is provided to Asian countries, etc. which have a cooperative relationship in security.

However, the domestic defense-related companies have almost no experiences of overseas transfer in the international defense market. It is necessary to establish a mechanism including the way of regional security and procedures to transfer equipment and technologies by public and private sectors according to the state and circumstances of the counterpart country under the frameworks such as defense equipment agreements with other governments.

The government should promote overseas transfer of defense equipment as a national strategy. If transfer of equipment is not enough to meet the demands of the counterpart country, it will be necessary to do response to the offset[3] demands, operation of equipment, provision of education and training, etc.. Also it will be an important factor to secure an appropriate profit for private companies to be involved in projects. Moreover, it is necessary to collect information on the counterpart country's rules and regulations regarding procurement of equipment, contract, intellectual property right, etc. in case of equipment transfer, such a mechanism cannot be constructed by private companies alone so it is also necessary to design, create, and utilize a new Japanese system like FMS[4], etc.. Specifically, public and private sectors

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[3] Offset means provision of compensation by the supplier country as a return to the purchaser country in trading of equipment, etc.

[4] FMS (Foreign Military Sales) is a system for the U.S. Government to provide equipment, etc. for a fee between governments for allied nations, friendly

should collaborate and discuss to determine their roles and sharing of risks, construct the foreign investment support system, information security structure, and judgment process of confidentiality, and simplify certain export procedures, etc..

2. Reinforcement of defense production capability and technological base and promotion of international cooperative development, etc. of equipment

(1) Significance of capability for technological development

Japanese domestic defense production capability and technological base is a world-class technology asset which has been filling the technology gaps from Europe and U.S. through the continuation of unique domestic development and license production by the Ministry of Defense and the industrial sector.

Japanese high level capability for technological development is a deterrent power to other countries in itself and secures its autonomy and independent operation, quick procurement and operation support, improvement in performance of equipment, timely follow-on development and production of equipment responding to the territory and circumstances, broad ripple effect on domestic industries and economy, and securing of bargaining powers in negotiations for selection of imported equipment, license production, and international cooperative development and production.

On the other hand, if the nation’s capacity for the cutting-edge technological development is lost, defense production capability and technological base will totally depend on foreign governments and defense industries, which will result in significant problems such as becoming unable to perform sovereign operation for defense equipment.

Accumulation of research and development and continuous manufacturing are required in order to secure nation’s significant capability for technological development as a national benefit.

(2) Maintenance and reinforcement of defense production capability and technological base

While procurement of domestic equipment is decreasing due to the severe financial constraint, it is necessary for companies to have more foreseeable

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nations, etc.

future prediction to continue the defense business. Therefore, it is also essential to execute necessary measures in accordance with the strategy for defense production capability and technological bases, formulated by the Ministry of Defense in the last June, having more clarification which defense production capability and technological base should be domestically maintained. Also a mitigation measure is required to protect Japanese defense industry from significant impact by expansion to introduce overseas equipment to Japan. For example, it is necessary to prioritize domestic procurement to some extent as a nation and enable Japanese companies to conduct sustainment of the imported equipment as much as possible.

(3) Promotion of international cooperative development and production of equipment and overseas transfer

It is necessary to promote equipment and technology cooperation with foreign countries and international organizations including international cooperative development and production of equipment with U.S., Europe (Britain, France, Italy, Germany, Sweden, NATO (North Atlantic Treaty Organization), EU (European Union), etc.), provision of equipment and technologies to Southeast Asia (Philippine, Indonesia, Malaysia, Thailand, ASEAN (Association of Southeast Asian Nations), etc.), India, etc.. Therefore, the government should simplify the technology transfer procedure and accelerate conclusion of defense equipment agreements and information security agreements.

Especially, with U.S., the Guidelines for Japan-U.S. Defense Cooperation revised in this April positions defense equipment and technology cooperation as a Japan-U.S. joint activity. U.S. is prioritizing cooperation with allied nations and friendly nations more and more while reducing its defense costs and Japan has to make appropriate contributions.

(4) Smooth execution of specific programs

Japan is involved in manufacturing of F-35 fighter [5], etc. applied to The Three Principles on Transfer of Defense Equipment and Technology. For U.S., transfer of PATRIOT missile parts was determined in the last July and that of

[5] F-35 is the cutting-edge fighter developed by international joint development among nine countries led by U.S.. Japan is not a partner country of the international joint development.

software and parts related to manufacturing of the Aegis system of escort ships in this July. Also the joint research on the air-to-air missile with Britain in the last July and started from November. For Australia, transfer of technology information for investigation of feasibility of joint development and production of the future submarine was determined in this May. For India, export of Japanese US-2 (rescue flying-boat) is being discussed, and negotiations with France, etc. are underway.

It is important to accumulate specific track records for smooth execution of corroborative programs with foreign countries which should be significant for Japan's security. As the Three Principles on Transfer of Defense Equipment and Technology does not sufficiently define the framework to proceed, it is necessary to construct specific mechanism to contribute to overseas transfer and execute measures based upon research of foreign cases.

3. Expectations for Acquisition, Technology, and Logistics Agency

(1) Basic roles

Acquisition, Technology, and Logistics Agency will be established as an extra-ministerial bureau which integrates and unifies the departments related to acquisition of equipment associated with procurement, research and development, etc. in the Ministry of Defense.

While security is becoming more critical, it is necessary to develop a wide range development for defense equipment, etc. complying with the basic space plan determined in this January and cyber security strategy determined in September in addition to National Security Strategy, National Defense Program Guidelines, and Medium Term Defense Program determined by the government in December 2013. The importance of maintenance and reinforcement on the defense production capability and technological base is incorporated in the "Basic Policy on Economic and Fiscal Management and Reform 2015" of the government formalized in this June. It requires strong leadership to secure reinforcement of the government-related budget.

The maintenance and reinforcement of the defense production capability and technological base requires measures for promotion of both international cooperative development and production and overseas transfer based on clarification and secure execution of the mid-and-long term research and development plan and acquisition plan of equipment.

Therefore, Acquisition, Technology, and Logistics Agency should effectively proceed with procurement, international cooperative development and

production, and overseas transfer of land-sea-and-air equipment by securing appropriate budget, reinforcing personnel, and establishing a mechanism to realize both technology innovation and efficiency of companies and a mechanism for overseas transfer of equipment and technologies based on close cooperation between public and private sectors including the concerned ministries and agencies.

At this time, it is necessary to secure appropriate profits and cash flow for companies to stably and continuously develop and produce equipment.

From this viewpoint, Acquisition, Technology, and Logistics Agency should steadily proceed with expansion of research and development presented in the defense production capability and technological base strategy, equipment and technology cooperation, contract rules and regulations reform, and reinforcement of cooperation with companies and ministries and agencies. When Acquisition, Technology, and Logistics Agency will be established, it is required to clarify the departments and agencies in charge of each item and execution scheduled.

(2) Specific activities

1) Reinforcement of research and development

It is necessary to formulate a research and development vision utilizing knowledge of the private sector as well considering the mid-and-long term viewpoint on National Security Strategy, etc.. It is necessary to determine the fields and equipment on which investments will be focused and execute specific programs to reinforce the development of component technologies and system integration technologies in addition to expansion of the research and development budget. Acquisition, Technology, and Logistics Agency should swiftly start development projects of new equipment considering ripple effects to industries and promotion of overseas transfer of defense equipment based on the results of various related researches.

The aviation field includes the new development of prototype for the future fighter F-3 (provisional name). Japan has excellent capabilities to independently develop fighters integrating cutting-edge technologies as well as U.S., Russia, France, China, etc.. The development of the entire system from materials and parts to mounted equipment and system integration has big ripple effect to a wide range of fields related to manufacturing of aircrafts. Such development of the entire system is required to keep Japanese aircraft industry in the international top level. Since the F-2 fighter whose production

completed in 2011, thereafter the domestic new fighters have not been developed, so the development of F-3 (provisional name) is an important opportunity to maintain the domestic production capability and technological base of fighters.

Acquisition, Technology, and Logistics Agency should also promote construction of dynamic joint defense force and research and development of precise guidance technologies to meet the demands of reinforcement of defensive readiness of Japan southwest region, information-related technologies including C4ISR[6], unmanned aircraft systems, ground equipment such as amphibians, and the marine equipment such as new-type escort ships which can respond to various operations.

Moreover, it is also necessary to take measures to enable to use government owned facilities[7] such as experiment, training, etc. for research and development of company's activities.

Research and development programs in which the Ministry of Defense cooperates with the relevant ministries and agencies are also important. In the examination of the Fifth Science and Technology Basic Plan to be formulated in the next March, the importance of dual use (military and commercial) is discussed and the government should promote development of dual-use technologies as part of the science and technology policy of the government. From this viewpoint, Acquisition, Technology, and Logistics Agency should cooperate with the Council for Science, Technology and Innovation and proceed with such activities as expansion and reinforcement of ImPACT[8] for innovative and discontinuous technology development.

In addition, Acquisition, Technology, and Logistics Agency should reinforce collaboration with universities, which are the core of the basic research. To do so, universities have to proactively promote research and development to contribute to security with attention to information management. It is also necessary to expand the security technology research started from this year to

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[6] Abbreviation of Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance. Function to correctly grasp states of enemies and operate friends appropriate at appropriate times.

[7] Large test facilities and range for tests which private companies cannot own (shooting range, etc.).

[8] Impulsing Paradigm Change through disruptive Technologies: Innovative research and development promotion program.

be executed for universities, etc. by the Ministry of Defense.

2) Planning of strategies and promotion of specific programs for international cooperative development and production and equipment transfer

(i) National and regional strategies and technical strategies

Strategic promotion of international cooperative development and production and overseas transfers of equipment requires the formulation of national and regional strategies with clarification of the technologies which should be strictly kept domestically and which can be transferred to overseas for each country and region. In addition, a technology strategy is necessary for securing of the existing technologies and mid-and-long term technologies in order to obtain excellent technologies and production. This leads to improve predictability of investments by companies.

For transfers of technologies and products, it is necessary to construct a framework for risk bearing for technologies, capital, third country transfer, unintended use, etc. by the government in the initial stage as well as make domestic and foreign arrangements for rights including intellectual property rights by Acquisition, Technology, and Logistics Agency and arrangements among relevant ministries and agencies necessary to execution of overseas business considering maintenance and reinforcement of company profitability, technologies, and intellectual properties according to the Three Principles on Transfer of Defense Equipment and Technology.

Therefore, Acquisition, Technology, and Logistics Agency should analyze and evaluate division of work and risks based on specific programs in international cooperative development and production, grasp the issues throughout the life cycle of development, production, maintenance, and operation of equipment including the international supply chain, and execute countermeasures as well as reinforce the information collection and analysis functions for defense and equipment policies of foreign countries such as U.S., influences of transfers of equipment and technologies from Japan, etc.. Acquisition, Technology, and Logistics Agency should also investigate the rules and regulations for procurement, etc. and consider the contract terms and conditions under which it can negotiate for international cooperative development and production of future equipment early.

(ii) Promotion of specific programs

(a) The latest case of international cooperative development and production is the F-35 fighter and a multinational framework to mutually supply parts, etc. among all user countries (ALGS: Autonomic Logistics Global Sustainment) will be constructed. Japanese companies are involved in the final assembly and check-out of F-35 and component manufacturing of the engine and mission avionics (electronic equipment). From now on, while manufacturing F-35 for SDF, the government should aim to participate in component manufacturing of F-35 for other countries.

The basic framework of F-35 production and supply system has been constructed by the F-35 Partner Countries who invested in the F-35 development other than U.S. In order for Japanese companies, who could not participate in development subsequently, to participate in the global market, it is necessary to superior to foreign companies' price competitiveness, supported by their governments who already invested in development, and also to respond to changes in the manufacturing volume determined by foreign companies who also possess the design and manufacturing rights.

Also in the last December, U.S. determined to set up the maintenance bases of F-35 for the Asia Pacific region in Japan and Australia. Acquisition, Technology, and Logistics Agency should strategically pursue Japan's roles in the maintenance of F-35 to maintain and reinforce the defense production capability and technological base.

This program requires formulation of the national strategy and long-term vision by the government, subsidizing any support such as cost burden of the manufacturing and maintenance base, and proactive promotion of involvement in production and maintenance of F-35 considering the fact that Japan could subsequently participate, and manufacturing and maintenance of airframes for other countries will contribute to the security both for Japan and global.

(b) In this May, it was determined in the National Security Council that for Australia, transfer of technology information for investigation of feasibility of joint development and production of the future submarine was determined. The public and private sectors should collaborate for the selection of Japan's proposal[9] in the evaluation process of Australia. Acquisition, Technology, and Logistics Agency should also determine the details of the utilization of local

[9] The submarines of Japan, France, and Germany are subject to selection.

companies and technology transfers from the production to maintenance phase, and construct a mechanism to define the roles and to share of risks of the public and private sectors as well as to aim at a broad support including industrial development, insurances, funding, export management, etc. by the government.

(c) Transfers of equipment and technologies are important methods as our international contribution to the whole ASEAN. Reinforcement of the MDA (Maritime Domain Awareness) capabilities in the South China Sea is required. This is a common issue of the ASEAN countries. The Government already provided patrol boats to Indonesia using ODA, but also has to provide equipment including the support activities such as joint development, operation, and maintenance. It requires provision of the information communication infrastructure technologies, etc., which is the basis for MDA, and joint development.

To construct bilateral and multilateral strategic partnerships including the cases of (a) to (c) mentioned above, it is important to make use of the mechanism of infrastructure package export, etc. for the relevant ministries and agencies such as the Cabinet Secretariat, Ministry of Defense, Ministry of Foreign Affairs, and Ministry of Economy, Trade and Industry and companies to share the significance of strategies and vision of the business and promote transfers of equipment and technologies including smooth operation of the foreign exchange law. It is also important to construct a mechanism for future programs utilizing these experiences from the long-term viewpoint.

3) Reform of the contract and procurement rules and regulations

It is necessary to establish a mechanism to appropriately reflect companies' efforts in profits and cover the fixed costs for maintenance of the defense production capability and technological base, cost burden in the case of intervention of production, etc., based on appropriate and fair evaluation of technical progressiveness, risks, etc.. In addition, while the profits of the private sector is improving, it is also necessary to raise the attractiveness of the defense industry by improving the profitability of the defense industry as well as provide funding measures [10] corresponding to changes in the management environment in which cash flow is prioritized in order to expand the companies related to the defense industry.

[10] Support for export business, industrial development funding, etc.

It is necessary to construct a contract rules and regulations based on fair risk burdens between the public and private sectors, reduce contracts with cost audit provisions[11], which lead to massive administrative workloads for both parties, and expand firm fixed price contracts considering appropriate cost compensation. The special measures law for defense procurement passed in this April made possible multiple-year collective procurement based on a long-term contract, which exceeds five years. Expansion of this application is required from the viewpoint of streamlining[12].

Acquisition, Technology, and Logistics Agency should also make effort to shorten the development period. It is also necessary to establish a system so that companies' efforts will reward by long-term collective and firm fixed price contracts in the mass-production phase. Therefore, the re-selection of companies in the phase of transfer from completion of development to mass-production should be abolished for streamlining. For the maintenance and repair stages, basically the cost-compensation contract should be applied in accordance with the actual conditions and it is necessary to consider efficiency as well. The contract with excess profit refund provisions[13] has to be improved to enhance the incentive for cost reduction and acceleration of the delivery date. From these viewpoints, a mechanism should be considered in which if profits increase by cost reduction, early delivery, etc. by companies' efforts, all or part of the profits should be retained in the company and can be re-invested in development and production of equipment. It is also necessary to make revisions such as simplification of the conventional supervision and inspection for streamlining. It is also necessary to promote firm fixed price

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[11] Contract to finalize the amount by audit during or after fulfillment of the contract. The contract amount is the upper limit and, if it is below that, the amount will be refunded.

[12] The long-term contract is a state liability action contract of up to five years used for a warship building contract, etc. The multiple-year collective contract is a state liability action contract which normally concludes contracts collectively for equipment to be procured for multiple years during the period of the mid-term defense buildup plan. Thanks to the special measures law, the term can be set to up to 10 years.

[13] Type of a firm fixed price contract whose contract amount is finalized initially. Contract in which if excess profits are generated in the other party of the contract, the government will be refunded the corresponding excess profits.

contracts more and introduce contract forms which allow excess of costs to a certain extent considering the technical difficulty, etc. of the outsourced business.

In addition, not only secure compensation for the appropriate costs but also appropriate profits corresponding to risks and progress are required. The level of the appropriate profit should be set considering the conditions of the commercial business or the defense industry in Europe and U.S.. Also if payment in accordance with progress of work is difficult due to the current severe budget state, etc., funding measures for companies will be necessary.

To secure the effectiveness of integrated project management throughout the life cycle of equipment, it is necessary to formulate guidelines referring to the U.S.'s system, etc., construct the database of cost information, and cultivate human resources. In addition, prediction of the life cycle costs requires track records of a certain volume and period, etc.. Moreover, a mechanism should be established in which a bilateral contract is concluded with Acquisition, Technology, and Logistics Agency assuming responsibility in accordance with the degree of involvement for project management by Acquisition, Technology, and Logistics Agency.

To promote cost reductions of equipment, effective measures should be considered by investigating not only company activities but also a wide range of cost reduction measures including foreign cases.

The Ministry of Defense accounts for most of the delivery destinations of equipment, so it cannot be left to the market mechanism or competition. Therefore, for the contract method, Acquisition, Technology, and Logistics Agency should review the excessive dependence on open competitive bidding and utilize discretionary contracts in accordance with the characteristics of equipment.

The basic framework for maintenance and reinforcement of the defense production capability and technological base is to make these factors function effectively.

4. Activities by the industry

The industry is required to develop and maintain equipment with cutting-edge technologies and high efficiency in accordance with territory and circumstances. Therefore, it will reinforce the international competitiveness of the defense industry by promoting expansion of research and development investments by companies, advancement of the production and management

systems, cost reduction, etc. as well as expand the industrial base along with the government's mid-and-long term policy, technology strategy, and progress schedule for maintenance of the defense production capability and technological base.

Also under the government policy, the industry will proactively contribute to international cooperative development and production which will contribute to the security of Japan and the world. It will promote new joint business effectively making use of a wide range of technologies of companies[14] and networks cultivated by license production, joint development, etc. so far. Under the information security and cyber security countermeasures formulated by the government with other countries, companies will reinforce such activities as information security and cyber security countermeasures and arrange environments for exports.

From now on, exhibition and sales strategies will be executed by collaboration between the public and private sectors including defense-related organizations because it is required to execute exhibition, etc. by "all Japan" in accordance with the national and regional strategies of the government.

The Industry will make effort to develop defense industry through proactively adoption of human resources by participation in new programs related to security for activation of the organization, securing of the continuity and diversity, and promotion of participation of companies with excellent technologies including small and medium-sized companies as well as promotion of public understanding.

End

[14] Technologies obtained by open innovation, etc. through collaboration between industry, educational institutions and the administration, etc. including dual use technologies.