Reflections on the Development of Defense Science and Technology Think Tanks in the New Context (Postprint)

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Abstract

[目的/意义]Defense technology think tanks constitute an integral component of the national think tank system. Clarifying relevant critical issues concerning defense technology think tanks serves a theoretical guiding role in their development and offers practical reference value for various think tanks' participation in defense technology undertakings.[方法/过程]In light of the new circumstances arising from the comprehensive deepening of national defense and military reform and the reform of the national science and technology system, this study analyzes the conceptual connotations of current defense technology think tanks and the strategic opportunities they face, explores the primary directions they should focus on, proposes recommendations for bringing defense technology think tanks into the decision-making horizon, and finally summarizes the important safeguard mechanisms for their effective functioning.[结果/结论]The analysis indicates that defense technology think tanks currently face three major strategic opportunities: independent innovation in defense technology, integrated development of military and civilian technologies, and supply-side efforts in defense technology. Defense technology think tanks should prioritize three main directions: defense technology planning, defense technology management, and military-civilian technology integration. They can participate in defense technology decision-making consultation through channels such as engaging in research projects, holding seminars and exchanges, participating in collaborative organizations, undertaking evaluation work, and cultivating branded achievements. Defense technology think tanks should receive effective safeguards in four aspects: information disclosure, competitive evaluation, conditional collaboration, and results reporting.

Full Text

Thoughts on the Construction of National Defense Science and Technology Think Tanks in the New Situation

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Abstract

[Objective/Significance] National defense science and technology think tanks (NDSTTT) are an integral component of the national think tank system. Clarifying the key issues related to NDSTTT provides theoretical guidance for their construction and offers practical reference for various think tanks participating in national defense science and technology endeavors. [Method/Process] In light of the new situation characterized by comprehensive reforms of national defense and the armed forces and reforms of the national science and technology system, this paper analyzes the conceptual connotation of NDSTTT and the strategic opportunities they currently face, explores the main directions that NDSTTT should focus on, proposes pathways for NDSTTT to enter the decision-making horizon, and finally summarizes the important safeguard mechanisms for NDSTTT to play their role effectively. [Result/Conclusion] The analysis reveals that NDSTTT currently face three major strategic opportunities: independent innovation in national defense science and technology, integrated development of military and civilian science and technology, and supply-side force enhancement in national defense science and technology. NDSTTT should concentrate on three primary directions: national defense science and technology planning, national defense science and technology management, and civil-military integration of science and technology. NDSTTT can participate in decision-making consultation for national defense science and technology through channels such as participating in research projects, holding seminars and exchanges, joining collaborative organizations, undertaking evaluation work, and cultivating branded achievements. NDSTTT should be effectively safeguarded in four aspects: information disclosure, competitive evaluation, conditions coordination, and results submission.

Keywords: defense technology; think tank construction; decision-making consultation; strategic management
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Science and technology constitute the primary productive force and a crucial

instrument of state power. As General Secretary Xi Jinping has pointed out, "Internationally, without advantages in core technologies, there can be no political strength" [?]. Against the backdrop of increasingly fierce global military competition and the emerging new round of scientific and technological revolution, a major power' s military without advantages in defense science and technology will have no assurance of victory in information-age warfare, nor will national security have a solid foundation and guarantee. In the current reform of military leadership and command systems, the Central Military Commission has specifically established the Science and Technology Commission to oversee and strengthen national defense science and technology construction, fully demonstrating the prominent position of science and technology in national defense and military development [?]. At present, China' s defense science and technology is transitioning from "catching up from behind" to "keeping pace," urgently requiring the broad aggregation of collective wisdom and active promotion of innovative development. "We must accelerate the establishment of a science and technology decision-making mechanism supported by scientific and technological consultation, strengthen the science and technology decision-making consultation system, and build high-level science and technology think tanks" [?]. Under the new situation where the Party and state attach great importance to the construction of new-type think tanks with Chinese characteristics, studying and implementing the series of important instructions from General Secretary Xi Jinping and the spirit of the document "Opinions on Strengthening the Construction of New-Type Think Tanks with Chinese Characteristics" [?], and thoroughly exploring issues related to NDSTTT construction holds important theoretical value and practical significance.

1. Conceptual Connotation of National Defense Science and Technology Think Tanks

Based on a comprehensive review of domestic and international situations, current academic circles still lack systematic and in-depth research on NDSTTT, and have not provided clear interpretations of their conceptual connotation. For instance, the "2015 Global Go To Think Tank Index Report" [?], published by the University of Pennsylvania and highly influential globally, classifies think tanks into 13 categories including defense and national security, national economic policy, education policy, and environmental policy, but does not treat NDSTTT as a separate category for specialized research. Similarly, the "2015 Chinese Think Tank Report" [?] released by the Think Tank Research Center of the Shanghai Academy of Social Sciences, and the "Global Think Tank Evaluation Report" [?] published by the Chinese Academy of Social Sciences' Center for Social Sciences Evaluation, neither provide clear definitions of NDSTTT nor examine them as a distinct type of think tank. Overall, the foundation and research capacity for NDSTTT remain weak, requiring sufficient attention and emphasis.

Based on the actual construction of NDSTTT in China and the spirit of relevant

documents from the Party Central Committee and the State Council, following in-depth investigation of over 20 institutions and extensive consultation with experts, the authors contend that NDSTTT are research and consulting institutions that focus primarily on strategic issues and major policies in defense science and technology, with the purpose of serving scientific, democratic, and law-based decision-making by national defense and military science and technology management departments. They constitute an important part of the national think tank system. NDSTTT encompass not only think tanks in the defense science and technology field but also those in politics, military, talent, security, and other fields closely related to defense science and technology. Their main task is to provide decision-making consultation and research services for defense science and technology development, playing important roles in policy advice, intellectual guidance, theoretical innovation, technology foresight, policy reserves, public opinion guidance, and talent aggregation.

The construction of institutions with NDSTTT functions in China began in the 1950s, with the establishment of think tank-type organizations and institutions such as the Academy of Military Sciences, the Military Engineering Institute, and the China Defense Science and Technology Information Center, which performed partial functions of NDSTTT. Subsequently, defense industry departments also established information consulting institutions to support decision-making in their respective fields. In recent years, some science and technology innovation think tanks, university think tanks, and social think tanks have developed rapidly, providing decision-making consultation and research for defense science and technology construction and development, and becoming important forces among NDSTTT. According to preliminary statistics, there are currently approximately 500 think tank-type organizations and institutions that can provide consulting services for defense science and technology and related fields. However, compared with relevant think tanks in the United States, Western Europe, and other developed countries and regions, these organizations and institutions suffer from numerous problems, including disordered system layout, rigid governance structures, low overall development levels, lack of top-tier think tanks and experts, and weak international and social influence. There remains a certain gap between their current state and the NDSTTT concept discussed in this paper, urgently necessitating top-level planning, systematic design, scientific layout, and coordinated advancement for NDSTTT construction and development.

2. Rare Strategic Opportunities Facing National Defense Science and Technology Think Tanks

In today' s world, competition of comprehensive national strength among countries is increasingly manifested as contests of scientific and technological strength, with all nations sparing no effort to develop science and technology to gain advantages in national defense and military affairs. Typical examples include the "Star Wars Program" proposed by the United States during the

Cold War and the more recent "Third Offset Strategy," both aimed at using technological innovation to offset adversaries' superior military capabilities and thereby achieve long-term absolute military advantage. Faced with increasingly fierce competition in defense and military technology, we urgently need more think tanks to deeply participate in defense science and technology work and provide comprehensive research and consulting services in strategy, planning, and technology. Meanwhile, China' s innovation-driven development strategy, civil-military integration development strategy, and military reform through strengthening strategy have converged to form a powerful synergy driving defense science and technology development, providing rare strategic opportunities and development space for NDSTTT.

2.1 Objective Need for Independent Innovation in Defense Science and Technology

Independent innovation in defense science and technology is an important strategic foundation for China's safe development, a crucial driver for leading national defense and military construction, and an inexhaustible source for new combat capability growth points. Currently, China' s defense science and technology development is transitioning from "imitative innovation" to "independent innovation and surpassing," and from a "follower" to a "peer" and even a "leader" [**?**], facing a series of important issues including direction selection, bottleneck breakthroughs, and breaking monopolies. "We must follow the policy of active follow-up, careful selection, and selective action, improve technological understanding, strengthen original design, develop unique 'assassin's mace'capabilities, and ensure we are not technologically surprised by the enemy" [**?**]. In concrete work, independent innovation in defense science and technology involves multiple aspects including basic theory, technological application, strategic management, and policy systems. How to accurately grasp development directions, make scientific strategic predictions, actively explore models and methods, and particularly how to achieve breakthroughs and development in forward-looking, pioneering, exploratory, and disruptive major technology research and new concept research [**?**] to provide foundational support for actively seeking scientific and technological competitive advantages urgently requires strong support from NDSTTT.

2.2 Inevitable Requirement for Integrated Civil-Military Science and Technology Development

Science and technology development in today's world is increasingly showing new trends and characteristics. Boundaries between industries and between military and civilian sectors are becoming increasingly blurred, with interdisciplinary integration, industry penetration, and civil-military fusion gradually becoming the mainstream of innovative development. Civil-military science and technology integration is an important intersection of the national innovation-driven development strategy, the civil-military integration development strategy, and

the strategy of strengthening the military through science and technology. It constitutes an important component of national strategy and represents the inevitable path for defense science and technology development. Promoting in-depth development of civil-military science and technology integration requires breaking down military-civilian boundaries and incorporating the defense science and technology innovation system into the national innovation system in broader scopes, at higher levels, and to deeper degrees, rooting it in the soil of "mass innovation." This not only provides environmental conditions for various think tanks to participate in defense science and technology construction but also creates task demands for think tanks to contribute suggestions in top-level design, overall planning, policy formulation, management coordination, and evaluation supervision of civil-military science and technology integration.

2.3 Important Reliance for Supply-Side Force Enhancement in Defense Science and Technology

The field of defense science and technology encompasses numerous professional categories, involves many factors, faces many contradictions and problems, and features complex decision-making processes. Law-based, scientific, and democratic decision-making all require comprehensive and accurate research information, high-quality consulting services, and feasible recommendation solutions. These decision-making needs must be supported and guaranteed by a large number of specialized institutions, requiring improvement and optimization of existing decision-making service systems. Under current circumstances, think tanks have become important intellectual support and a crucial reliance for defense science and technology decision-making. Fully absorbing think tank participation, effectively utilizing think tank capabilities, and genuinely leveraging think tank roles are important tasks for improving and optimizing decision-making service systems and represent a key mission in the structural adjustment of the supply side of defense science and technology. Currently, systematic and detailed investigation of think tanks on the supply side is needed to deeply understand their functional positioning, comprehensively identify their professional advantages and expert specialties, establish categorized docking relationships according to needs, and strive to achieve refined and scientific think tank layout.

3. Main Directions for National Defense Science and Technology Think Tanks

Management departments at all levels in the defense science and technology field are the primary service targets of NDSTTT, and their functional tasks constitute the main directions of focus for NDSTTT. From the newly established Central Military Commission Science and Technology Commission to other defense science and technology management departments, defense science and technology decision-making involves numerous matters. Through summarization and organization, there are mainly three aspects, each with different work points, which provide important focal points for NDSTTT.

3.1 Defense Science and Technology Planning

Defense science and technology planning involves researching and strategizing the direction, objectives, priorities, layout, and strategies for defense science and technology work in future periods, mainly including defense science and technology development demand generation, strategy formulation, and planning and programming. Defense science and technology development demand generation primarily involves analyzing and assessing the strategic environment for defense science and technology development under the guidance of national security strategy and proposing defense science and technology development needs. Based on demand generation, relevant departments formulate defense science and technology development strategies through certain procedures and subsequently develop defense science and technology development plans and programs. This process is essentially one of forecasting, planning, research, and decision-making, involving extensive consulting work. For instance, tracking and analyzing domestic and international defense science and technology development trends, forecasting development directions, conducting forward-looking, holistic, and comprehensive research on defense science and technology development strategic issues, and providing decision-making recommendations for priority area identification, key technology selection, and technology roadmap formulation all require specialized support and participatory consulting services from think tanks.

3.2 Defense Science and Technology Management

Defense science and technology management involves organizing, controlling, and coordinating various elements or resources related to defense science and technology activities, including organizations, personnel, funding, conditions, information, and achievements, according to the tasks and objectives of defense science and technology development. It mainly encompasses the work systems of defense science and technology management organizations at all levels, various work mechanisms from demand generation through project R&D to achievement transformation, defense science and technology policies and regulations, and management of defense research institutions, defense research projects, defense science and technology funding, defense science and technology talent, defense science and technology cooperation and exchange, defense science and technology evaluation, defense science and technology awards, and defense science and technology achievement promotion. Defense science and technology management content is extensive and, due to the particularities of the defense science and technology field, is far more complex than general science and technology management. Precisely because of this, its management decision-making urgently requires think tanks to provide insightful, innovative, and actionable consulting support. For example, defense research management needs to introduce outstanding science and technology experts from society through employment. How to employ such experts with appropriate compensation outside the military establishment and enable them to return to their original work units

or have better development space after completing their tasks requires adaptive modification, feasibility demonstration, and practical innovation of existing policies such as "two-way exchange of innovative talent" and "part-time concurrent compensation."

3.3 Civil-Military Science and Technology Integration

Currently, civil-military integration has become a high-priority topic, and civil-military science and technology integration has also received widespread attention. From the perspective of implementation, while civil-military science and technology integration continues to deepen, it also faces many issues requiring research and resolution. These mainly include: civil-military integration development strategy and management in the science and technology field; civil-military coordination of science and technology planning and programming; cultivation of innovation entities; construction of mechanisms for information release, competition, and evaluation in civil-military integration; two-way transfer, transformation, and industrialization of scientific and technological achievements between military and civilian sectors; civil-military coordination and sharing of resources such as talent, funding, and facilities; defense science and technology investment and financing management; establishment of civil-military integrated science and technology innovation service systems; and development of civil-military integrated science and technology innovation think tanks and consulting organizations. These issues involve both military and civilian sectors, span both domains, involve numerous interest entities and factors, and many are related to institutional barriers, policy issues, and structural contradictions, making them difficult to resolve. This creates substantial demand for think tank participation, particularly social think tanks, and some think tanks have already developed advantages and experience in consulting outcomes and resources regarding civilian science and technology innovation that can be transferred and transformed to serve civil-military science and technology integration. For instance, intellectual property service institutions in science and technology service systems can fully leverage their professional advantages in intellectual property to support intellectual property management in the defense science and technology field and provide consulting for two-way achievement transfer and transformation between military and civilian sectors.

4. Basic Considerations for the Pathways of NDSTTT Policy Advice

Providing advice around needs is the natural role of NDSTTT, and diversified participation and decision-making support constitute the basic pathways for NDSTTT to play their role. Apart from think tanks directly affiliated with decision-making departments that can extensively and deeply participate in decision-making consultation, general think tanks can enter the decision-making horizon and exert their advantageous roles through pathways such as participating in research projects, holding seminars and exchanges, joining collaborative

organizations, undertaking evaluation work, and cultivating branded achievements, thereby continuously expanding their influence in defense science and technology construction.

4.1 Participating in Defense Science and Technology Research Projects

Absorbing outstanding research outcomes from research institutions across society is the inevitable path for defense science and technology development. In the past, research in the defense field was relatively closed; now, an open trend is taking shape. In October 2015, the Defense Intellectual Property Office released eight soft science research needs related to intellectual property, including "Research on Civil-Military Collaborative Innovation Intellectual Property Policy" and "Research on 'Civilian Participation in Military' Intellectual Property Transfer, Application, and Management Protection Mechanisms," on the 全军武器装备采购信息网 (All-Military Weapons and Equipment Procurement Information Network), opening them to public bidding across society. This pioneering initiative' s symbolic significance far exceeds its practical significance, heralding that soft science research in the defense field will gradually open to the whole society. Open bidding, invited bidding, competitive negotiation, and single-source procurement methods for equipment will also be extended to all areas of defense science and technology research. NDSTTT should conduct in-depth and systematic preliminary research on certain issues based on analysis of the current status and trends of defense science and technology development and practical and long-term decision-making needs, timely apply for projects, or form high-quality research reports and other outcomes to recommend to relevant management departments. Through participating in research projects, think tanks can, on the one hand, accurately grasp the basic conditions of defense science and technology and related fields and deeply understand defense science and technology needs through repeated communication and coordination with decision-making departments; on the other hand, they can directly influence decision-making by serving the needs of defense science and technology management departments with research outcomes, thereby obtaining more resource guarantees and condition support.

4.2 Holding Defense Science and Technology Exchange Activities

Academic and technical exchange activities are important pathways for think tanks to gather expert wisdom and influence policy decisions, receiving increasing national attention. For example, the "Xiangshan Forum" on "International Security Cooperation and Asia-Pacific Security" hosted by the China Military Science Society was upgraded from a Track II to a Track 1.5 forum in 2014, becoming an internationally renowned high-end security and defense forum [**?**]. NDSTTT should fully leverage the platform role of exchange activities, constantly monitor global defense science and technology development trends, and conduct high-end forums, thematic seminars, and other activities on major is-

sues in combination with national security needs and actual defense science and technology development, organizing well-known domestic and international experts, government officials, and academicians of the Chinese Academy of Sciences and Chinese Academy of Engineering to offer suggestions on major issues such as defense science and technology innovation strategy, civil-military integration development of defense science and technology, and defense science and technology policy systems to serve defense science and technology construction and development. The China Defense Science and Technology Information Center held the "Seminar on Civil-Military Integration Development and Innovation in the Science and Technology Field" in June 2016, precisely based on the background of current scientific and technological innovation and in-depth civil-military integration development, providing policy advice to national and military relevant departments through expert discussions and exchanges. NDSTTT should also fully utilize their think tank identity to strengthen international cooperation and exchange, jointly conduct research projects, organize international conferences, and positively articulate China' s defense science and technology development policies and situations to influence international and public opinion. It is understood that defense science and technology management departments support such exchange activities and have strong willingness for cooperation.

4.3 Joining Defense Science and Technology Collaborative Organizations

Participating in defense science and technology work collaboration organizations, expert organizations, or academic groups, and using collaborative organization platforms for joint research, voicing opinions, showcasing achievements, and expanding influence are important ways for NDSTTT to play their role. NDSTTT should actively participate in existing societies, research associations, and other social organizations or work collaboration organizations, such as expert groups and professional groups of relevant national ministries and commissions, academic organizations like the China Defense Science and Technology Information Society, and industry technology alliance organizations with government backgrounds. Through participation, they can obtain relevant policy and demand information, publicize their institutions' achievements and advantages, and promote the application and transformation of think tank outcomes. NDSTTT can also adopt self-organizing forms to strengthen connections and cooperation, explore the establishment of think tank collaboration systems, form research alliances, develop strategic partnerships, and share resources such as information, technology, platforms, facilities, and talent. For major interdisciplinary, cross-field, and cross-institutional projects or strategic, thematic, and comprehensive consulting research needs, they can flexibly form collaborative research teams to provide integrated intellectual support for defense science and technology development.

4.4 Conducting Defense Science and Technology Development Evaluation Work

Currently, the national science and technology system is undergoing comprehensive reform, integrating over 100 original science and technology plans into five major categories and changing from ministries and commissions managing specific projects to entrusting third-party professional institutions with full-process management from acceptance and review to acceptance inspection. Moreover, relevant national ministries and commissions are establishing a batch of professional project management institutions to undertake specific project management work. This means that evaluation work for national science and technology plan projects is gradually opening to society and professional evaluation institutions, providing broad opportunities for science and technology think tanks to deeply participate in science and technology projects. Under this new trend, NDSTTT can not only participate in defense science and technology project evaluation work but also conduct evaluation research on defense science and technology development strategies, plans and programs, policies and regulations, and development directions in technology fields. For think tanks outside the defense science and technology system, they can start from analyzing global technology development trends, monitor major global technology movements, conduct tracking research on major plan and project developments in major countries, and timely form evaluation reports for decision-making departments' reference, gradually achieving deep participation in defense science and technology construction and development. For example, the "Annual Report on World Weapons, Equipment, and Military Technology Development" [**?**] released annually by the China Defense Science and Technology Information Center directly serves strategic decision-making and R&D work in science and technology, generating significant decision-making and social impact.

4.5 Building Renowned Brands for NDSTTT

Brand is the foundation for think tanks' survival and development, directly reflecting their capabilities, levels, values, and influence. Experts, achievements, technologies, methods, ideas, platforms, and activities are all manifestations of think tank brands. Indeed, brand building requirements should permeate the entire think tank construction process. NDSTTT should strengthen the construction of leading expert groups, vigorously cultivate and publicize backbone experts to form expert brands; innovate methods and means, apply new technical tools, propose major theoretical and ideological viewpoints, and continuously strengthen influence in professional fields; enhance foundational accumulation to form deep mining and analytical research capabilities based on data, information, and knowledge, providing decision-making with data-based and visualized products combining qualitative and quantitative analysis; promote brand building of research outcomes, strengthen the relevance, scientificity, and practicality of achievements, and continuously improve decision-making and social influence; utilize tools such as websites, blogs, Weibo, and WeChat public accounts to

build advice exchange platforms, gather public wisdom and social forces, and enhance think tanks' ability to positively guide public attention and support for defense science and technology development; organize defense science and technology development essay solicitation and creative suggestion activities to attract participation from professional institutions and personnel, form advisory reports, and offer suggestions for defense science and technology innovation and development.

5. Important Safeguards for NDSTTT to Play Their Role

NDSTTT construction faces unprecedented situations and opportunities, with great potential on the platform of defense science and technology innovation and development. At the same time, it should be recognized that the particularities of the defense science and technology field create certain difficulties and obstacles for think tanks in information acquisition, consulting research, and results submission. To advance NDSTTT construction, defense science and technology management departments need to provide effective mechanism safeguards in the following four aspects to address these issues.

5.1 Establishing an Information Disclosure Mechanism

For think tanks to play their role, obtaining various relevant information from users is the basic guarantee. Defense science and technology management departments should establish a demand information release system. For non-confidential demand information, they should publicly release it through relevant national and military information network platforms to attract various think tanks to apply. For confidential needs, they should scientifically decompose them into public demand information or downgrade their classification for release within the maximum scope of authorized access. Defense science and technology management departments should actively coordinate with military and civilian units involved in tasks to help think tanks resolve difficulties and problems in project research and collaborative research, providing convenience for think tanks to obtain information and conduct consulting research tasks. Meanwhile, under the premise of ensuring information security, relevant departments should standardize procedures for data and information acquisition and sharing, maximize the disclosure of relevant basic data on defense science and technology, share information on previous research outcomes, and safeguard think tank research and consulting activities.

5.2 Establishing a Competitive Evaluation Mechanism

The main way for think tanks to participate in defense science and technology construction is to undertake consulting tasks in the form of projects or provide targeted research outcomes for direct procurement by relevant departments. This process requires, under the premise of information disclosure, the establishment of standardized and transparent project application mechanisms

with full public disclosure of application process information, judging not by origin but solely by capability, selecting undertaking institutions through competitive evaluation, or drawing on government procurement of social services practices to directly purchase high-quality consulting reports, policy proposals, research data, and other outstanding innovative achievements after open and fair review. Based on this, defense science and technology management departments should establish and improve a classified evaluation mechanism for NDSTTT and their products, focusing on quality innovation and actual contributions, establish think tank talent and achievement databases and corresponding evaluation indicator systems, and adhere to a combination of user evaluation, peer evaluation, and social evaluation to scientifically assess think tanks' research strength and support capabilities in one or multiple professional directions in the defense science and technology field from multiple perspectives. For think tanks with strong research capabilities, high-quality achievements, and good credit ratings, long-term support can be provided in one or multiple fields, focusing on cultivating a group of backbone supporting forces that can concentrate on key issues and conduct continuous long-term research.

5.3 Establishing a Conditions Coordination Mechanism

Issues in the defense science and technology field are highly specialized, and research often requires "speaking with data" and using analytical tools, methods, and models to strengthen research rigor and detail. Based on these characteristics and trends, defense science and technology management departments should support think tanks in fully utilizing new research methods such as big data and cloud computing, provide funding support and promote the application of relevant software platforms, databases, and other basic capacity building; encourage think tanks to independently develop information collection systems, decision support systems, and other information infrastructure, and provide corresponding funding support for basic condition construction projects with distinctive features and urgent research needs; strengthen and improve the construction of defense science and technology information resources, and further promote joint construction and sharing of scientific research resources such as literature materials and large databases in the defense science and technology field.

5.4 Establishing a Results Submission Mechanism

Results submission and transformation utilization directly reflect think tank construction effectiveness and constitute the "last mile" of think tank construction. Think tanks within the defense science and technology system have certain channels and pathways for results submission, while other think tanks have not yet formed stable and effective work mechanisms for results submission. Defense science and technology management departments can fully utilize internet platforms to encourage think tanks to timely push and recommend research outcomes for departments or institutions to discover and use according to their needs; establish special publications and reports to compile think tank research

outcomes for timely submission to relevant national and military departments; arrange dedicated personnel to compile catalogs of NDSTTT achievements for regular distribution to relevant national and military departments, providing achievement content as needed. The intellectual property rights of think tank achievements should be respected. Feedback should be provided in a timely manner when achievements are referenced, borrowed, or used, or when leaders fully affirm think tank outcomes, and commendations and rewards should be given when certain decision-making and social benefits are generated.

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Note: Figure translations are in progress. See original paper for figures.