# Innovative component of Ukraine's military-technical cooperation with foreign states as an instrument of public-private partnership

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### **Abstract**

The research considers the role of the innovative component of Ukraine's military-technical cooperation with foreign states. The legislative and legal basis for the implementation of international military-technical cooperation of Ukraine is analyzed, taking into account recent changes in the country's foreign policy direction. The examples of promising prospects for collaboration at the level of defense enterprises are presented.

**Keywords:** military-technical cooperation, defense-industrial complex, public-private partnership, innovative projects, defense industry.

### **Introduction**

Taking into account military aggression of the Russian Federation and the termination of cooperation in the field of arms production, the importance of military-technical cooperation of Ukraine with other states is actualized. It involves external cooperation in many areas related to the development, production, modernization, utilization and international transfers of military and dual-use commodities.

The analytical report of the Ukraine's National Institute for Strategic Studies, following the Annual address of President to Verkhovna Rada "On internal and external situation of Ukraine in the sphere of national security" dated 2017 identified the priority directions for the development of the military-technical cooperation: increase of arms imports from other countries, formation of new cooperative links for Ukrainian arms manufacturers,

preserving the capabilities of the Ukrainian defense industry to execute export (2017).

In the economic sphere, adherence to these development directions will allow to increase financing of the defense industries, restructuring of military production in order to increase the competitiveness of Ukrainian arms in the world market and its market share gains. These aspects of the military-technical cooperation have significant impact on ensuring various components of the country's economic external-economic, security: financial, industrial, scientific and technological, etc., the risks and threats in which in Ukraine have increased significantly. Finding the ways to activate the military-technical cooperation with a view to using its arsenal to secure the national interests is an urgent task.

### Material and methods

Issues of the military-technical cooperation of Ukraine with foreign countries are a subject

of interest of many Ukrainian and world scientists: V. Badrak (2014), V. Behma (2017),

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V. Horbulin (2015, 2016), Yu. Shymov (2015), O. Sverhunov (2014), V. Shemaiev (2017), V Shekhovtsov. (2015, 2016), A. Shevtsov (2015, 2016) and others. In particular, Yu. Shymov (2015) analyzes the main factors that impede the widespread acceptance of public-private partnership in the defense-industrial sector. At the same time, the issues of using the innovative component of Ukraine's military-technical cooperation with foreign countries as a tool for

implementing public-private partnership in the country's defense-industrial complex remain understudied.

**Setting objective.** The purpose of the article is to investigate the innovative component of Ukraine's military-technical cooperation with foreign countries as a tool for implementing public-private partnership in the country's defense-industrial complex.

# **Results and discussion**

The extrapolation of developing countries contributes to the achievement of parity with developed countries over the coming decades. According to the World Bank methodology, which determines the lowest per capita gross national income (GNI), 144 countries (including Ukraine) are considered to be developing and have a GNI of \$ 3 million \$ 130 thousand. Most international organizations and individual experts identify a nearly homogeneous group of developing countries that may vary slightly from one criterion to another. If Ukraine, since 2004, has been steadily strengthening its position in the group of such countries, opening its borders to conduct international economic activity after gaining the status of a market economy country, eventually the question of not becoming a victim of the Malthusian trap became relevant.

Ukraine secures its national interests in foreign, economic, defense and security spheres owing to the military-technical cooperation with foreign countries. The level of strategic partnership in the field of military and technical cooperation differs significantly from the level of partnership in other fields.

Considering the history of the Ukraine's international military-technical cooperation development, it is necessary to emphasize that the military-industrial complexes of Ukraine and the Russian Federation belonged to a united defense-industrial complex. This led to the interdependence of countries in the production of a large part of military and special purpose items. The affinity of research schools and the activities of both countries in one of the world's largest arms markets (the post-Soviet) — all

these provided the basis for a constructive military-technical cooperation and enabled each country to solve the problems of its own defense and industrial complex. However, such cooperation made it impossible for Ukraine to develop military-technical cooperation with its partners in the Western world arms market, that is, with the US and EU member states. The dependence on the Russian Federation is enshrined in law-making treaties between Ukraine and the Russian Federation (by 2015, there were 377 of them). These documents covered a wide range of issues and regulated relations between states, in particular in the field of military and technical cooperation.

The military-political conflict in eastern Ukraine and the denunciation of a number of agreements on military-technical cooperation with the Russian Federation have led to a in the direction of Ukraine's international cooperation. In particular, within the framework of the presidential decree "On the decision of the National security and defense council of Ukraine" № 691 dated 27.08.2014 (p. 7), it is envisaged to take measures to discontinue export of military and dual-use commodities to the Russian Federation. Pursuant to the foregoing Presidential decree, on 12.09.2014 the State service for export control of Ukraine revoked the permits for export to the Russian Federation of goods subject to p. 8 of the Procedure of the state control over international transfers of military goods, approved by the Cabinet of Ministers of Ukraine resolution № 1807 (2003).

In order to ensure the protection of national interests and in accordance with the art. 16 of the Law of Ukraine "On the state control over international transfers of military and dual-use commodities" (2018) the State Export Control has stopped the export of military goods to the Russian Federation and transit through the territory of Ukraine of military and dual-use commodities since June 2014. In August 2017, Ukraine terminated an intergovernmental agreement with the Russian Federation "On cooperation in export of military products to third countries" (2003), and in October 2017 intergovernmental agreement maintaining the specialization of enterprises and organizations involved in the production of military purpose products" (2000). Within the framework of a set of measures for the implementation of the Minsk Protocol (agreed at the summit in Minsk on February 12, 2015), on May 2, 2018, Ukraine suspended the participation of its representatives in the activities of the CIS bodies.

accordance with the strategy of development of the defense-industrial complex of Ukraine for the period until 2028, the priority of the legislative branch is to adapt national legislation in the field of national security to Euro-Atlantic norms and standards. military-political conflict in eastern Ukraine causes a steady increase in the needs of Ukrainian military formations that the public sector is unable to meet to the extent necessary. A more flexible management decision-making system and the willingness of partners to invest in defense projects have led to a stronger role for the private defense industry. However, despite the desire of private companies to gain momentum in meeting the needs of domestic and foreign markets, in Ukraine there are still bans at the state level, which do not allow progress in this area. Due to significant international restrictions on the import of military commodities and technologies to Ukraine, the re-equipment of the Armed Forces and other military formations is carried out by private and state-owned enterprises mainly at the expense of their own production facilities and developments.

Thus, since the beginning of the armed conflict and annexation of the territories of Ukraine in 2014, the defense-industrial complex enterprises, regardless of ownership, intensified the development and modernization of samples of armored vehicles, special weapons and highprecision weapons for the needs of the Armed Forces of Ukraine, meanwhile increasing the capacity in aviation. Today, one of the key roles in the production of defense products is played by the state concern "Ukroboronprom" – the largest industrial association of public sector enterprises, which comprises a third of the country's defense and industrial potential. Most of the enterprises of the concern are of strategic importance for the economy of the state. Ukroboronprom manages the defense industry such as aviation, armored vehicles, special high-precision weapons, weapons and ammunition, shipbuilding and engine building.

The change in the direction of Ukraine's foreign policy, which began in 2014 and is still ongoing, is underpinned by the relevant legal framework in the context of defense reform.

According to the Strategic Defense Bulletin of Ukraine № 240/2016 dated 06.06.2016 "... Ukraine strengthens interagency coordination in the field of national security and defense, coordination of intelligence activities, interaction in matters of monitoring and assessment of the situation, improves the system of management and communication, ensures the development of cyber defense and strategic communications system" (2016). One of the operational goals of the bulletin's defense strategy is to improve the mechanism of formation and use of the state defense order, which will allow to form a state defense order for three years and adjust its indicators, to introduce the latest technologies of production of military equipment, to create closed cycles of development and production of basic weapons, and special equipment, to achieve complete independence from the supply of equipment,

components and materials from the Russian Federation.

A general feature of developing countries, that are trying to make up for the lag in scientific and technological development is that state structures intervene into innovative processes of stimulating and encouraging industries to develop and import advanced technologies. For example, in Chile the locomotive of innovative projects still remains the fund that was founded in 1976, with the annual budget of \$ 24 million and 87% share of self-supporting projects. The activities of the Chilean fund are focused on creating new business lines for the development of advanced innovative projects and the subsequent sale of companies to individuals. The Chilean fund creates the necessary conditions for establishing public-private partnership at all stages of the innovation process (from identifying possible areas of investment to developing business plans) by providing advisory services, providing training, managing technology projects, venture entrepreneurship.

South Korea focuses on the establishment and development of innovative networks and clusters that tend to be regionally concentrated within the old industrial agglomerations (Shapoval, 2013). Innovative networks distinguish by broad specialization, maintain close links with universities, governmental research institutes, private institutions and branches of foreign transnational corporations.

An effective public-private partnership in South Korea is carried out by Daedeok Innopolis, Pohang Technopark and Tehran Valley around Seoul. The Silicon Valley-based Daedeok Innopolis is a regional innovation system with major components such as advanced infrastructure, a technology business incubator and high-tech industrial firms. The synergistic effect of network interaction is achieved by several tools: sharing expensive scientific equipment, collaborating on the development of packet technologies, incubating new business and using researchers in various combinations depending on the projects.

In order to unite the efforts of private defense industry enterprises in the interests of improving internal cooperation, building an effective public-private partnership in the defense and industrial sphere, developing private enterprises' defense products marketing both inside the state and in the foreign markets, the League of defense companies of Ukraine was created. The main focus area of the League's members is to participate in the effective and high-quality re-equipment of the Armed Forces of Ukraine.

Public-private partnership with foreign countries within the defense industry is carried out in accordance with joint international projects of the enterprises that are part of Ukroboronprom. For example, the terms of Ukrainian-Polish cooperation are formalized in a memorandum signed between state enterprise "Promoboronexport" and the Polish company SCAT. The document confirms the intention of the parties to provide repair of CET-53M torpedoes at the enterprises of the Ukrainian concern, as well as to arrange the supply of spare parts for the needs of the Polish Navy. The Ukrainian-Israeli cooperation is conducted under the terms of an agreement signed between the above-mentioned Ukrainian enterprise and the Israeli company U. F. B. Technologies LTD. The senior management of the Ukrainian defense industry complex has agreed to cooperate in the field of innovative production and sales of components based on polymer and composite materials. The purpose of the agreement is to provide Ukrainian armored, aircraft, and missile industries with high-quality polymer and composite materials, which will help to solve import substitution problems, improve product performance, and at the same time increase competitiveness in world markets. The Ukrainian-Turkish cooperation is enshrined in a joint declaration signed by the interior ministers of both countries on September 4, 2018. The document provides for cooperation in the field of combating terrorism, illegal migration and human trafficking, cybercrime, money

laundering, drug trafficking and transnational organized crime (Defence Express).

In 2018, Ukraine signed a memorandum of cooperation with Moldova, which stipulates that, state enterprise "Promoboronexport" will provide services in the field of modernization, supply, depot overhaul of Moldovan military equipment and weapons. Being a developing country, Ukraine holds a steady position in military-technical cooperation with the countries of the Middle East and Southeast Asia.

Developing electronic warfare capabilities and electronic reconnaissance tools has become a great advance in the development of innovative technologies, which is a priority area while facing external threats. In particular, the Ukrainian company-producer – a research and development center "Infozahyst" presented in 2018 the updated "Khortytsa-M" complex, which makes it possible to determine the location of objects on the terrain in real time, using data from an unmanned aerial vehicle board. In fact, it is a hybrid intelligence system, because one complex combines different means of obtaining information about the enemy. Mass production and deployment of this complex requires approval of the Ministry of Defense of Ukraine and its inclusion to state defense orders for the current year.

## **Conclusions**

International interaction requires clear rules to raise national public and private capital for investing in innovative projects. After the change of foreign policy trajectory, geography of Ukrainian exports coincides with the areas of military conflicts. This pattern also shapes the change in the structure of Ukrainian exports. On the world market, Ukrainian enterprises present their weapons products in the segment of aviation, armored vehicles and ammunition, but at the same time, they unfortunately lost positions in the markets of shipbuilding and air defense. The indispensable condition for Ukraine's military-technical cooperation with foreign countries is the approval of a national strategy for innovation development, which will be specified in the fiveyear indicative plans, corresponding to the term of office of the executive branch of power. This should be enshrined in the National concept for the development of military-technical cooperation of Ukraine with foreign states. It is

necessary to legally regulate the obligation to complete the development of innovative units before adopting them for service in the Armed Forces of Ukraine, whereas after the opening of the borders, many qualified scientists change the place of their research in favor of foreign employers, which offer more favorable conditions. In the institutional sphere it is necessary to apply state funds specialized in creating the basis for establishing innovative enterprises, that will use various ways of attracting private capital for financing and further development. In Ukraine, sovereign wealth funds are not actually used as a source of financing for innovative projects in the field of military-technical cooperation, owing insufficiently active marketing of national science achievements.

A perspective area for further research is to specify the proposed innovations in the state regulation of military-technical cooperation of Ukraine with foreign countries.

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