

# The Influence of the Innovation Potential of Personnel on Strengthening Economic Security of Ukrainian Enterprises in the Post-War Period

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*Abstract:* - The article aims to determine the influence of the innovation potential of personnel on strengthening economic security of Ukrainian enterprises in the post-war period. The object of the article is the process of strengthening economic security of Ukrainian enterprises considering the use of innovation potential of their personnel. The study uses general scientific theoretical methods: generalization, explanation, grouping - to analyze economists' views of the study object and draw conclusions of the content analysis of primary sources, analysis and synthesis - to clarify the main scientific categories of the study, substantiate new conceptual provisions. Four obstacles have been identified to the positive influence of the innovation potential of personnel on strengthening economic security which consist in the absence of an innovative component in the advanced training program for personnel of most Ukrainian companies and government institutions; an indicator related to the innovation potential of personnel in the regulatory legal acts of Ukraine on innovative development; joint projects of the state and private partners to increase the innovation potential of personnel; a relevant state body that would deal with strategic issues of cooperation with business structures and other private enterprises. The article proposes directions of solving the identified problems. The proposed directions are of scientific novelty and practical value and can be used in development of joint projects to strengthen economic security in the energy sector, construction, import substitution and other fields. Consideration of innovative competences, technical and professional potential will allow solving the issues of combating terrorism, cybercrime, protecting critical infrastructure, eliminating consequences of emergencies and environmental disasters, restoring activities of enterprises in various sectors of the economy.

*Key-Words:* - Competencies, Economic Security, Personnel's Innovation Potential, Post-War Period, War

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## 1 Introduction

The government of Ukraine has a plan for economic recovery, the main directions of which are energy independence, development of military technologies and raw materials production for further export as well as rapid logistics [1]. Along with restoration of infrastructure and housing for the population, this will strengthen economic security of Ukraine and Ukrainian enterprises accompanied by deprivation

of energy, military, commodity dependence on other countries. In addition, transition to exporting processed raw materials of industries where Ukrainian enterprises have competitive advantages in the world markets (primarily in agriculture and metallurgy) will allow increasing the income and profits of producers at the same volumes of sales. Also, the plan presented by the Ukrainian government provides for participation of primarily

Ukrainian producers and companies (at least 60%) in economic recovery.

Thus, such factors as emergence of new enterprises in the fields of energy, military technologies and raw materials processing, as well as involvement of primarily Ukrainian enterprises in economic recovery will contribute to emergence of such positive socio-economic effects as increased employment, creation of new jobs, intensification and enhancement of business activities. The totality of these factors will ensure cash revenues to budgets of all levels, which cumulatively with the mentioned socio-economic effects will contribute to strengthening economic security.

New ways of post-war development of Ukraine will require not only investments of the state and business structures (private partners) in new production, restoration of infrastructure, etc., but also innovatively active personnel whose intellectual capital will become a significant factor for strengthening economic security [2]. In the new conditions, personnel should not do their work routinely; they should have their own innovation potential the use of which is important in non-standard situations of development and implementation of the joint state – business projects. However, Ukraine is facing a shortage of skilled labor. Thus, in 2021, about a third of business owners noted this as one of the significant obstacles in industry (30%), information services (28%), construction (23%) [3]. In the public sector of the economy, there is also a need for highly qualified personnel, in particular for narrow specialists in the field of tender documentation preparation and project support.

The importance of personnel's innovation potential for development of enterprises is considered by many scientists. The paper [4] studies the essence and methods of assessing the innovation potential of personnel. The author treats innovation potential as a set of inclinations, capabilities and desires that form abilities of employees a business owner can apply in innovation activities. So we can say that the innovation potential of personnel is associated with formation of innovative competences. [5] focuses on such an element of the innovation potential of personnel as digital competences that influence the level of economic security of enterprises. Indicators characterizing the innovation potential during assessment of enterprise employees' innovative activity are dealt with in [6]. The authors emphasize that the readiness of personnel for innovations significantly influences realization of their innovative potential. Here, the following key indicators characterizing the

innovator are taken into account: the professional qualification level; business qualities; complexity of functions; the level of education, professionalism; the ability and desire to innovate; the ability to use the borrowed competence; informational and organizational readiness for innovation. However, the link with economic security of the enterprise remains out of sight here.

The methodology for assessing the personnel's innovation potential as an indicator of the innovativeness of the enterprise and methods of its analysis are given in [7, 8]. The authors propose to consider the integrated level of the innovation potential on the basis of determining partial indicators of aggregate innovative abilities and opportunities of employees formed on the basis of assessment of the following competences: generating ideas, thinking creatively, learning new things, adapting to new conditions, communicating in a project team, etc. There is also defined an integrated indicator of efficiency of employees' innovative activity. These works do not take into account the influence on economic security of enterprises, though the integral indicators developed by the authors can be used in assessing its level. However, some elements are considered in [9] where a methodology for assessing economic security of personnel is proposed. Nevertheless, the authors do not pay attention to the role of innovative competences in this problem. Despite the significant contribution of the above-mentioned specialists, the role of innovation potential of personnel in implementing projects of cooperation between the state and private enterprises is not sufficiently covered by scientists due to specificity of the issue.

In addition, importance of people in the process of implementing innovations within the framework of public-private partnership is emphasized [10]. However, in the scientific literature, such a complex problem as the role of personnel's innovation potential in cooperation between the state and business to strengthen economic security of Ukrainian enterprises in the post-war period remains undisclosed.

## 2 Problem Formulation

In Ukraine, there are separate programs for training and advanced training of personnel of state bodies, local self-government bodies and state institutions in the field of cooperation between the state and business, e.g. "Implementation of digitalization tools in state institutions", "Gender equality", "European integration", "Change management", "Leadership", etc. As a rule, there is no innovation

component in such training programs, which is the first of the problems we have highlighted. For private companies and non-governmental organizations, training seminars and forums are held to inform and advise on the processes of implementation of state-business cooperation projects. Again, there is no innovation component. As for development of the innovation potential of partner private enterprise personnel, it is carried out by such companies independently within the framework of their budget and corporate innovation strategy.

In relation to personnel, even the Strategy for Development of Innovation for the Period up to 2030 adopted by the Government of Ukraine contains only one indicator – the share of employees in enterprises the high- and medium-tech sectors of industry in the total number of employees in the industry. There is no indicator related to the innovation potential of personnel, or at least their innovative competences. This is the second problem to be addressed.

Thus, it should be noted that due to the fact that Ukraine's cooperation with private enterprises before the war with the Russian Federation was at the stage of formation, some problems, in particular those related to development of the innovation potential of personnel, are not fully solved. Development of the innovation potential of personnel when implementing cooperation projects of the Ukrainian state and private enterprises was fragmentary and inconsistent in nature. At the same time, there are no joint projects to increase the innovative potential of personnel. And this is the third of the problems we have highlighted, but no less significant. This may become an obstacle to implementing the plan of economic recovery of Ukraine and strengthening economic security of enterprises. The Ukrainian government's emphasizing energy efficiency projects in all business areas, new effective logistics, military-tech, modernized raw materials production and new high-tech processing enterprises requires a high level of innovativeness of personnel who will develop and implement relevant projects.

Fig. 1 demonstrates the place and importance of the innovation potential of personnel in cooperation between the state and Ukrainian enterprises in order to strengthen economic security in the post-war period.

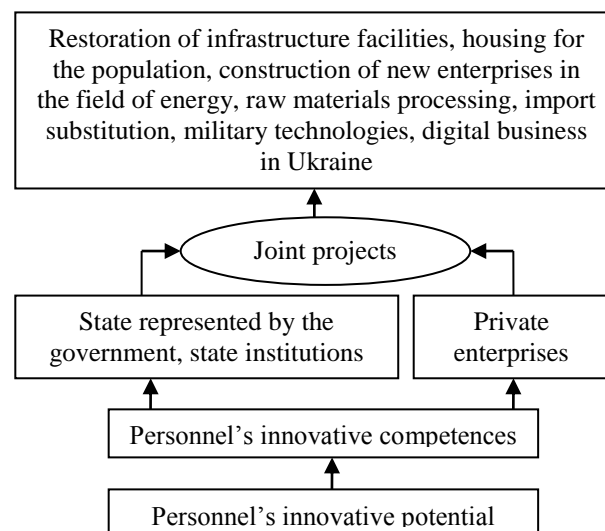


Fig. 1: The place and importance of innovation potential of personnel in cooperation between the state and Ukrainian enterprises in order to strengthen economic security in the post-war period (developed by the authors)

Thus, personnel's innovation potential is a link in the system of cooperation between the state and business and a starting point for determining what people are required both for state authorities and at private enterprises-partners, what they should be taught, what should be considered when selecting them or when assessing current employees' innovative activity, etc.

In our opinion, the task of developing the innovation potential of personnel in the field of cooperation between the state and private enterprises should be assigned to a relevant state body. At the moment, there is no special state body in Ukraine that deals with strategic issues of cooperation with business structures and other private enterprises. And this is the fourth of the problems we have identified. We believe that in the post-war period creation of such a body will become urgent. Its functions can include development of the concept and implementation of the state policy in the field of developing joint projects with business structures, implementation of representative, organizational and coordination functions, training and development of partners at all levels, control and maintenance of efficiency of project implementation as well as development and implementation of measures to increase the innovative potential of personnel of parties to cooperation between the state and private enterprises. Before the war, in the absence of such a state body, these functions were performed by individual ministries within implementation of certain projects they were responsible for. Besides,

in 2019, the State Organization “Agency on Support of Public-Private Partnership” was founded. However, its competences included a limited range of issues: consulting on public-private partnerships, training project teams, assistance in preparation of project documentation, etc.

Forming an effective system of training all subjects of the state and private enterprises cooperation will gain importance. Such a system is able to solve both traditional tasks – studying legislation, tender procedure and preparing necessary documentation, and the task of developing the innovation potential – gaining new knowledge and acquiring skills to develop projects, produce and implement innovations, make non-standard innovative solutions, etc.

Thus, the article aims to determine the influence of personnel’s innovation potential on strengthening economic security of Ukrainian enterprises in the post-war period.

### **3 Problem Solution**

#### **3.1 Directions of Strengthening Economic Security in the Post-War Period**

In terms of economic development and infrastructure efficiency, Ukraine lags far behind economically developed countries. The main reasons for the unsatisfactory condition of many enterprises that make up infrastructure facilities of Ukraine requiring modernization consist in mass destruction resulted from the war, the long-term underfunding of the facilities’ quality maintenance and operation, inefficient asset management and the lack of a general systemic policy of strengthening economic security. The way out of the situation in which the state cannot ensure a sufficient level of economic security of enterprises is cooperation between the state and private partners.

In Ukraine, in 2021, 193 agreements were concluded between the state and private partners, of which only 31 were implemented, 11 were expired, 32 were terminated, and 119 were not fulfilled. This testifies to low efficiency of cooperation between the state and businesses on joint projects. During 2019-2021, 29 projects involving investment of \$3.734 billion were fully implemented in Ukraine [11]. For comparison, as of 2017, Turkey attracted \$131.4 billion investment in 221 cooperation projects. In Europe, €14.4 billion was invested in cooperation projects in 2017 alone [12].

The practice of European countries shows that in order to strengthen economic security through

successful implementation of joint projects of the state and businesses in Ukraine, it is necessary to fulfill a number of key conditions. As of the first quarter of 2022, the main condition for resumption of cooperation between the state and businesses is cessation of hostilities of the Russian Federation in Ukraine, restoration of Ukrainian territorial integrity and sovereignty, and guarantees of non-encroachment on them in the future. This will reduce business risks, allow private partners and the state to continue implementing suspended projects and start implementing new ones.

According to experts, “After the victory, we will be in completely different economic circumstances than before the war, so we will need a different economic policy. The main differences will be as follows: we will get a huge destruction of infrastructure, industry, housing and communal facilities amounting to many billions of dollars; access to international financial resources will be opened for us, an analogue of the Marshall Plan will certainly be introduced; international technical assistance will provide access to modern western technologies. These circumstances give a chance to create a new structure of the economy, to move from the raw material and agricultural type of economy to the technological one” (courtesy translation) [13]. After the war, Ukraine will have a wide range of opportunities – from access to modern technologies to significant amounts of investment in infrastructure facilities. Taking into account new opportunities, introduction of technological trends will significantly strengthen economic security through high-value-added goods and services [5].

Rebuilding of houses, hospitals, educational institutions, roads, bridges and other infrastructure will be of paramount importance for improving the level of economic security of construction and metallurgical enterprises. Such rebuilding should be accomplished along with restoration of economic security of enterprises of other industries, energy and agricultural sectors, transport infrastructure, etc. At the same time, it is the state that should play a key role in regulating the economy and creating conditions for its development in the post-war period [14].

Now in Ukraine, as well as in the EU countries, the most vulnerable component of economic security is energy security. The EU countries are very dependent on Russian gas and oil. But gradual reduction of consumption and the search for alternative energy in the past have provided these countries with the possibility of partially abandoning Russia’s energy resources now and will contribute to the possibility of complete

abandonment in the future. Risks caused by the Russian government in the field of energy, the search for ways to save and preserve the environment have led to development and use of the newest types of energy over the past ten years. Ukraine can adopt the model of European countries and improve current achievements in the field of “green” energy. Ukraine needs a complete rejection of Russian energy resources and requires formation of a new energy strategy. Within the framework of this strategy, it is possible to consider not only traditional approaches – increasing the country’s own production of gas, coal, oil, but also the use of other technological solutions – biofuels, hydrogen biotechnologies, battery storage, etc.

For economic security of Ukraine and its enterprises, there are two main measures to strengthen energy security, both of which consist in introduction of modern technologies. First, it is the use of battery storage devices or biomass for short-term energy accumulation. Secondly, it is the use of hydrogen biotechnologies for long-term accumulation. Such measures to strengthen security can be implemented with the help of relevant projects of cooperation between the state and private enterprises.

Ukraine’s needs for battery storage are so great that it will be interesting for businesses to build their own battery production. The country can learn from the relevant experience of the USA, the EU countries, South Korea. Concerning the use of biomass, biogas as energy sources, practices of Germany, Great Britain, Italy, Sweden and Finland can be of great interest.

Ukraine, the EU countries and the USA are dependent on some of products manufactured in these countries in limited quantities that do not cover their entire needs. Because of this, the priority direction of cooperation between the state and private enterprises may involve development of such a business direction as replacement of imports. For example, speaking of Ukraine, we can note a significant increase in imports in the first half of 2021 (the latest data) compared to the same period in 2020 – by \$34.5 billion, or by 27.6%. As for the import of goods and services during this period, the main trading partner countries of Ukraine included the EU countries (41.5%), China (14.6%), the Russian Federation (7.7%), Belarus (6.1%), the United States (5.6%) [15].

Thus, imports to Ukraine from the aggressor countries (the RF and Belarus) amounted to 13.8%. Before the war, energy carriers (coal, including anthracite; petroleum products; liquefied gas) made 2/3 of all imports from the Russian Federation to

Ukraine. As for Belarus, Ukraine imported 58.5% of petroleum products and fuel, 17.4% of fertilizers, plastics, chemical products, etc. from this country [16].

It should be noted that on April 2, 2022, Kremenchuk oil refinery, the only one in Ukraine, was completely destroyed by Russian missiles [17]. In conditions of war, actions of the Armed Forces of Ukraine depend on availability of fuel. According to B. Sokolovskyi, “the only way out is to build a new modern oil refining complex capable of producing liquid high-quality petroleum products and modern raw materials for the chemical industry for the Ukrainian and foreign markets. This option is the most acceptable for our state, since the state can influence our market of petroleum products, we use the Ukrainian school of oil refining, create jobs” (courtesy translation) [18]. Therefore, projects for import substitution in the oil refining industry after the end of hostilities are extremely relevant.

In addition to import substitution, it is advisable to consider what Ukraine can offer to other partner countries, since the EU countries, the United States and others have problems with import substitution of some goods. The EU is Russia’s largest trading partner (41% of Russia’s total trade volumes). In addition to oil and gas, it exports other goods from Russia [19]. The EU countries’ needs include metals and metal products, wood and furniture, chemical goods and plastics, food products. All this can be produced by Ukrainian enterprises subject to the state support and joint projects with other countries. Especially since Ukraine possesses necessary resources, as well as cheap labor. However, this labor force does not possess necessary innovative competences.

Besides, building new production of electric motors, transformers, generators, consumer electronics, electronics, as well as IT technologies will contribute to strengthening economic security. Ukrainian IT specialists’ activities during the pre-war period and martial law show that Ukraine has a large number of professionals in this field who can be involved in joint projects of the state and businesses.

An important point is to take into account miscalculations of the economic policy of other countries on the territory of which military conflicts took place in the XX century. Let us consider restoration of economic security of Bosnia and Herzegovina in the post-conflict period (1999-2004) as an example. Under the “Program project of reconstruction and European integration of the Balkan countries”, Bosnia and Herzegovina received \$7 billion (200% of their GDP in 1996) of

non-refundable assistance. This assistance was distributed among 11 sectoral target groups chaired by key donors. The Central Economic Group subordinated to the Office of the High Representative was in overall charge. The EU and the World Bank jointly coordinated the assistance [20]. Implementation of infrastructure recovery projects was almost successful, but success of the structural rebuilding of the economy was not significant. This led to the lag of Bosnia and Herzegovina from other Balkan countries. There are several reasons for this: lack of a common strategic economically substantiated vision of development from the point of view of the government; absence of a state body to carry out centralized coordination of projects of cooperation between the state and private partners, communication between donors and project executors, with the Central Economic Group; focus of the “Program project” on restoring infrastructure and meeting essential needs of the population instead of strategic restoration of production of goods and services, creation of a base for sustainable growth; nonrational distribution of international financial assistance, 20% of which was directed to analytics, retention of external personnel, foreign consulting, etc. [20].

Thus, it can be seen that in the post-war period, strengthening the economic security of Ukraine and enterprises located on its territory will depend on highly qualified employees who possess a developed innovation potential and will be able to quickly adapt to new economic realities.

Based on the study conducted, we propose drivers for strengthening economic security considering the innovative potential of personnel:

1) Development and implementation of the Strategic Program for Strengthening Economic Security of Ukraine and its cooperation with private partners. Determination of the role of personnel’s innovative potential in strengthening economic security.

2) Enhancement of the Strategy for Development of the Innovation Activity Sphere for the Period up to 2030 with a focus on development of the innovation potential of personnel of Ukrainian enterprises and government institutions. Formation of indicators to determine the level of the innovation potential of personnel sufficient for implementing the Strategic Program for

Strengthening Economic Security of Ukraine in the post-war period.

3) Creation of a state body for cooperation between the state and private business structures. This body should determine priority directions of development of the Ukrainian economy and projects, implementation of which is paramount and promising from the standpoint of strengthening economic security; on behalf of the government carry out general management, coordination of economic recovery projects, communication between individual donors and executors, monitor responsibility of both parties and communicate with the World Bank, other international organizations, donor countries; determine measures for forming the level of the innovative potential of personnel of public institutions and private enterprises sufficient for implementation of all priority projects.

4) Attraction of highly qualified employees with a level of the innovation potential sufficient for development and implementation of joint projects of the state and private partners in various sectors of the economy (energy, construction, IT, military complex and others) which will play a leading role in the post-war period.

Thus, subject to implementation of Ukrainian projects of cooperation between the state and business in increasing the level of personnel’s innovation potential, it is possible not only to strengthen economic security of Ukraine, but also to facilitate the country’s economy development in the post-war period.

### **3.2 Consideration of the Indicators of Personnel’s Innovation Potential in Strengthening Economic Security of Ukraine in the Post-War Period**

Efficiency of the Strategic Program for strengthening economic security of Ukraine in the post-war period should be determined by a number of criteria, including the level of employees’ innovation potential. To consider this criterion, let us first study the dynamics of Ukraine’s place in international rankings characterizing its innovative development, and identify the influence of employees’ innovation potential (individual components of indices) on formation of this place (Table 1).

Table 1. Ukraine's place in international rankings by indices of innovative development and their components characterizing employees' innovation potential

Indicator	2016	2017	2018	2019	2020	2021
<b>Global Innovation Index (GII)</b>	56	50	43	47	45	49
Innovation Input (II)	76	77	75	82	71	76
incl. Human Capital and Research (HCR)	40	41	43	51	39	44
Innovation Output (IO)	40	40	35	36	37	37
incl. Creative Output (CO)	58	49	45	42	44	48
<b>Bloomberg Innovation Index (BII)</b>	41	42	46	53	56	58
Higher Education Efficiency (HEE)	5	4	21	28	48	57
Research and Development Intensity (RDI)	45	44	47	54	57	59
Concentration of Researchers (CR)	42	44	46	48	49	52
<b>European Innovation Scoreboard (EIS)</b>	39	36	33	32	33	34
Human resources (HR)	45.2	46.0	41.7	41.9	34.4	31.8
Intellectual assets (IA)	6.29	8.33	8.67	8.35	8.22	8.51
<b>World Talent Competitiveness Ranking Index (WTCRI)</b>	66	69	61	63	66	61
Global Knowledge (GK)	61	53	42	37	46	39

Source: [21]

Based on the study results, a number of indicative regression dependencies are established between Ukraine's place in international rankings of innovative development and the level of innovative potential of personnel. The equations are presented in Table 2.

Table 2. Regression analysis results

Regression dependency	Coefficient of determination (R <sup>2</sup> )
$IO = 0.2851 \times CO + 23.909$	0.61
$II = 0.7021 \times HCR + 45.975$	0.74
$GII = 0.7169 \times CO + 14.159$	0.80
$BII = 0.3244 \times HEE + 40.52$	0.94
$BII = 1.964 \times CR - 42.648$	0.94
$BII = 1.119 \times RDI - 7.7381$	0.98
$EIS = 49.485 + 0.081 \times HR - 2.264 \times IA$	0.74
$WTCRI = 0.253 \times GK + 52.58$	0.53

Source: calculated by the authors

Thus, we have established linear dependencies where influence of the following indicators is important:

- the indicator of Creative Outputs on the Global Innovation index and the Innovation Output;
- Human Capital and Research indicators on Innovation Input;
- indicators of Higher Education Efficiency, Concentration of Researchers, Research and Development Intensity on the Bloomberg Innovation index;
- indicators of Human Resources and Intellectual Assets on the index of the European Innovation Scoreboard;
- the indicator of Global Knowledge on the Global Talent Competitiveness Index.

Therefore, we propose to introduce the above-mentioned indicators characterizing the innovation potential of personnel into the system of indicators of efficiency of the Strategic Program for Strengthening Ukraine's Economic Security in the post-war period and other regulatory legal acts of Ukraine on development of innovation activities.

On the other hand, these indicators should be objects of joint projects of the state and private partners aimed at developing creative skills of personnel, improving the quality of education, science and medicine. The synergistic effect of such projects will be manifested in increased level of innovative personnel of the country's labor force.

However, at the same time, it is necessary to take into account the real state of affairs in Ukraine. War always means changes. According to the survey, almost 100% of Ukraine's population has plans for life after the war: 27% of the population want to start their own business; 38% of respondents want to master a new profession; 21% - find a new job; 49% of respondents plan to gain new knowledge; only 3% - move in another country for good [22]. Among the interviewed people there are businessmen – high-level professionals - who have lost their business. Thus, it can be assumed that both Ukraine's population and businesses are interested in post-war implementation of joint projects of the state and private enterprises.

Military operations in Ukraine lead to increased labor migration and loss of the human potential. Most of those who leave Ukraine are highly educated young women. In the future, there will occur a demographic crisis, the negative influence of which on economic security of enterprises will be manifested through the decreased internal market and reduced labor. Thus, 20% of Ukrainian citizens

have already left their places of residence, and therefore work. At the same time, 58% of them are migrants from the eastern regions of Ukraine, whose labor profile is characterized by work at industrial enterprises, including the food industry, metallurgy, etc. [23]. Other indicators regarding labor resources obtained through CATI surveying are presented in Table 3.

Table 3. Indicators influencing the level of personnel's innovation potential in Ukraine in the post-war period

No.	Indicator	%
1	People who continue working in Ukraine	59
1.1	including in the usual mode	32
1.2	part-time or remotely	24
1.3	in a new job	3
2	People who do not have a job	39
3	People who are ready to retrain for another profession	58
4	People who are ready to work in another region of Ukraine	49
5	People supporting possible mobilization of military aged men of certain professions for the country reconstruction instead of serving in the army	70

Source: [23]

Thus, the obtained results allow concluding that there is a potential of personnel available in Ukraine, but certain conditions should be created for its use both at private enterprises and in the public sector. As mentioned above, creation of such conditions will become possible through implementation of joint projects aimed at increasing the level of the innovation potential of personnel. The most important projects should include:

- creation of expert centers to determine lack of professions, skills and competences necessary to strengthen economic security in the post-war period at the regional level;

- creation of mobile educational modules to serve as educational spaces that will offer short-term intensive educational programs for employees in the areas of employment identified as a priority in strengthening economic security;

- creation of centers for innovative entrepreneurship, which will act as a platform for generating innovative ideas and accumulating the latest knowledge;

- restoration and modernization of Ukraine's scientific infrastructure.

To work both in the proposed state body and at partner enterprises, personnel with appropriate competences should be involved.

Specificity of the innovation potential of the enterprise consists in the fact that it is both a resource of the enterprise and a carrier of abilities to use all other resources.

The personnel's innovation potential is characterized by the features that significantly influence efficiency of development and implementation of any projects of cooperation between the state and businesses:

- it may exist for a long time given replenishment of spent resources or replacement of obsolete ones;

- it is a complex system of interrelated elements influenced by a number of external and internal factors;

- it combines employees' innovative abilities and innovative opportunities for active application to development and implementation of projects;

- it is characterized by high mobility and reproducibility.

In the context of this article, the innovation potential of personnel is characterized by dualism of the implementation sphere. On the one hand, it should be implemented in state bodies, and on the other hand, at private enterprises that will act as partners in implementation of joint state-private projects. At the same time, in both cases, the key competences of personnel necessary to strengthen economic security of any enterprise are as follows:

- generation of new ideas and creation of favorable conditions for such generation by other employees (colleagues, subordinates). This directly concerns radical innovations for creation of which joint state-private project partners should have personnel with appropriate competences capable of not only rationalization, but also invention activities – a new vision of processes and phenomena essence;
- offer of equally effective alternative, as well as non-standard solutions;

- introduction of new approaches to solving current and strategic tasks. It is necessary to separately mention civil servants whose decisions will influence development of partnership projects. Their competences should include possession of the "good governance" principles, knowledge and ability to defend rights and freedoms of people in conditions of martial law and in the post-war period, as well as provisions of international humanitarian law;

- high level of flexibility and adaptability. In this context, these components of the innovation potential are designed to solve the strategic problem – increase of adaptive capabilities of the enterprise in accordance with the tasked level of economic security achievement;

- strategic thinking;



- consideration of modern trends in various fields of science and technology, as well as the use of innovative experience of others in professional activities;

- resiliency. We believe it reasonable to refer resiliency to competences of innovatively active personnel precisely because it characterizes the ability to recover even in the most difficult circumstances, which are the war and post-war times.

## 4 Conclusion

The study conducted shows that along with the negative consequences of the war for the whole country, Ukrainian enterprises are facing unpredictable challenges of geopolitical, economic and social factors. Due to the fact that strengthening economic security of Ukrainian enterprises is the result of collective actions, the study actualizes the paradigm for implementation of security tools, among which state-private business cooperation including that aimed at increasing the innovation potential of personnel is recognized as a priority.

It is shown that the state is responsible for not only ensuring security in terms of protecting borders and maintaining the internal order, but also economic security of enterprises in all sectors of the economy. The private sector can become an effective partner in solving the problems of restoring Ukraine's economy and social sphere in the post-war period. In the field of critical infrastructure protection, the concept of cooperation between the state and business structures can be a promising means of strengthening economic security.

Post-war projects will require involvement of innovatively active personnel whose potential can be successfully realized.

The directions of solving the identified problems proposed in the article are aimed at improving the processes of strengthening economic security by considering the influence of the innovation potential of personnel of Ukrainian enterprises and institutions. The identified drivers of strengthening economic security determine consideration of the innovative potential of personnel when developing state programs and strategies for the post-war development of Ukraine, when substantiating the need to establish a state body for cooperation between the state and private business structures (for implementation of projects to restore the country).

It is also proposed to consider indicators characterizing the level of the innovation potential

of personnel when justifying efficiency of the Strategic Program for Strengthening Ukraine's Economic Security. They can be used in developing joint projects to strengthen economic security in the energy sector, in construction, import substitution, etc.

Taking into account innovative competencies, the technical and professional potential, involvement of innovatively active personnel should solve the problem of combating current and potential risks caused by the war, restoring infrastructure, performance of enterprises in various economic sectors, creating new facilities, etc.

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- Cherep A., Cherep O. – determining the features of cooperation of private enterprises with the state in the direction of strengthening economic security;
- Adamenko M. – problem setting, research into the role of personnel's innovation potential in the post-war period;
- Dashko I. – analysis of the EU countries' experience in strengthening the economic security of enterprises;
- Korolenko R. – literature review, article formatting and design;
- Kornukh O. – analysis of innovative and intellectual components in programs of professional development of personnel.

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