

*I.O. NOVIK, Y.V. ZHURBA***MECHANISMS OF UKRAINIAN STATE SUPPORT OF INNOVATIONS BEFORE AND AFTER THE WAR**

Today, the national economy is underinvested in the country's investment and innovation sector, which leads to a downturn in production and a reduction in the investment capacity of market participants and the state. Only a scientifically substantiated and highly functional investment policy of the state has the potential to improve the prevailing situation in Ukraine. This article is intended to analyze the mechanisms of state support for innovations in the world and in Ukraine in the past, and to propose the development of possible methodological and scientific-practical recommendations for improving the mechanism of development of state support for innovations in the country in the former peaceful and post-war period. The issue of researching the mechanisms of state support for innovations has always been important and relevant for the country's economy as a whole, as well as for individual enterprises and research institutions. To assist in supporting innovation in the most effective way, the state can use the following mechanisms: providing financial support, creating incubators and accelerators, developing research institutions, creating regulatory incentives, attracting investment, training and supporting young entrepreneurs, funding research, creating technology parks, tax incentives, introducing legislative incentives, and developing international cooperation.

Keywords: the development of investments and innovations; innovations; government support; development

*I.O. НОВИК, Є.В. ЖУРБА***МЕХАНІЗМИ ДЕРЖАВНОЇ ПІДТРИМКИ ІННОВАЦІЙ В УКРАЇНІ ДО ТА ПІСЛЯ ВІЙНИ**

Сьогодні національна економіка недоотримує інвестиції в інвестиційно-інноваційну сферу, що призводить до спаду виробництва та зниження інвестиційної спроможності суб'єктів ринку і держави. Лише науково обгрунтована та високофункціональна інвестиційна політика держави здатна покращити ситуацію, що склалася в Україні. Метою даної статті є аналіз механізмів державної підтримки інновацій у світі та в Україні в минулому, а також запропонувати розробку можливих методологічних та науково-практичних рекомендацій щодо вдосконалення механізму розвитку державної підтримки інновацій в країні в колишній мирний та післявоєнний період. Питання дослідження механізмів державної підтримки інновацій завжди було важливим і актуальним як для економіки країни в цілому, так і для окремих підприємств та науково-дослідних установ. Для того, щоб сприяти підтримці інновацій найефективнішим способом, держава може використати наступні механізми: надання фінансової підтримки, створення інкубаторів і акселераторів, розвиток науково-дослідних інститутів, створення регуляторних пільг, залучення інвестицій, навчання та підтримка молодих підприємців, фінансування наукових досліджень, створення технологічних парків, податкові пільги, введення законодавчих стимулів, розвиток міжнародного співробітництва.

Ключові слова: розвиток інвестицій та інновацій; інновацій; державна підтримка; розвиток

Introduction. Innovation support is a set of measures aimed at supporting and developing innovative projects, which in turn are aimed at solving specific problems or meeting market needs. Such measures may include financial support, consulting services, access to necessary resources, development of innovation infrastructure, creation of platforms for cooperation between different participants of the innovation ecosystem, etc. Support for innovation is considered an important factor in economic development, as it helps to create new markets, jobs and increase the country's competitiveness in the global world.

Actuality. The importance of government support for innovation has always been a priority, as innovation is a key driver of economic growth and social progress. Innovative technologies can improve people's quality of life, reduce production costs, increase the competitiveness of companies and provide new opportunities for business development. However, the development and implementation of innovations can be costly, risk financial losses, and require long-term development and implementation. Therefore, the state can play an important role in supporting innovation by providing financial, legal and infrastructure support, which can reduce the costs of developing and implementing innovative technologies, as well as reduce risks for businesses and research organizations.

Literature analysis. Many academic experts and scientists have emphasised the importance of government

and society supporting innovation. For example, Joseph Schumpeter, one of the founders of the theory of economic growth, emphasised the role of innovation in the process of economic and social development.

Also, Steven Johnson, author of «Where Good Ideas Come From», says that innovations often emerge through the interaction of people and means of communication, and that supporting such means, as well as creating an enabling environment for innovation, can stimulate economic and social development [1].

In addition, Michael Porter, renowned economist and professor at Harvard Business School, says that innovation plays an important role in enhancing the competitiveness of companies and countries in the global economy [2].

Thus, many scientists and experts emphasise that supporting innovation can stimulate economic growth, improve the quality of life of people and the development of society as a whole.

Problem statement. There are several obstacles to supporting invention in Ukraine. One of the main problems is inadequate fiscal support from the state. Most invention systems bear significant investment, and the government doesn't always give enough finances for this. In addition, Ukraine has an inadequate number of good specialists in the field of invention, as well as an underdeveloped structure that would help support invention development [3].

In addition, Ukraine doesn't always effectively use scientific achievements and technologies, which may reduce the competitiveness of Ukrainian enterprises. In addition, legislation can occasionally be unclear regarding innovative systems, which complicates their perpetration. Overall, a comprehensive state support for invention that takes into account all these aspects is demanded to ameliorate the situation in Ukraine.

Main part. Due to the rapid-fire pace of technological development, government support for invention is getting decreasingly important in a broadly competitive terrain. Innovation is a crucial factor in profitable growth and sustainable development, as it creates new openings and transforms traditional business areas.

One of the crucial rudiments of supporting invention is the development of the country's scientific and technological eventuality. The state can give fiscal support for exploration and development, as well as support educational programs in specialized lores to insure the vacuity of good labor force. In addition, the state can encourage enterprises to develop new products and technologies by furnishing impulses and increased investment in the assiduity.

Supporting invention is also important for sustainable development and reducing environmental impact. Innovative technologies can be aimed at creating energy-efficient and environmentally friendly products, helping to reduce the negative impact of products on the environment.

Eventually, support for invention can give new openings for the development of the socio- profitable sphere, similar as bettered medical diagnostics and treatment, tourism development, bettered social services, and other sectors.

So, there are many different mechanisms that the state can use to support innovation. Here are some of the most common ones.

1. Providing financial support: the government can provide grants, subsidies, tax credits or other financial benefits for innovative companies.
2. Creation of incubators and accelerators: these are organizations that provide innovative companies with assistance in developing technologies and business strategies, as well as access to mentoring and financial resources.
3. Development of research institutes: the state can invest in research institutes, which allows to increase the number of research and development projects and create favourable conditions for scientific breakthroughs.
4. Creating regulatory incentives: the state can provide regulatory and licensing incentives to reduce the costs of creating and developing innovative products.
5. Attracting investment: the government can create favourable conditions for foreign investors to raise funds for the development of innovative companies.
6. Training and support for young entrepreneurs: the state can provide support to young entrepreneurs to ensure that their innovative projects are properly trained and financed.

7. Also, a great decision would be creation of technology parks: Ukraine has several technology parks that bring together companies and startups from a particular industry that can receive support from the state.
8. The government can provide tax breaks and tax discounts for innovative companies, which helps them develop and accelerate their growth.
9. The government can enact legislation to help support the development of innovation, including creating favorable conditions for attracting investment and accelerating technology development.
10. Ukraine can cooperate with other countries and international organizations to share knowledge and experience, as well as to attract financial support for innovative projects.

Also, the problem of brain drain, or the emigration of highly skilled or educated individuals from a country, can be separately identified because it can have negative effects on the economy and development of the country. So we can identify some strategies that governments can use to prevent brain drain.

First one, is to provide competitive salaries and benefits, specifically, government can offer competitive salaries and benefits to highly skilled professionals, which can incentivize them to stay in the country rather than seeking employment abroad.

Second one, is to create a favorable work environment, which can help retain highly skilled workers. This can include offering opportunities for professional growth, providing adequate resources for research and development, and promoting a healthy work-life balance.

Third one, is to provide funding for research and development. So government can invest in research and development to create new job opportunities and encourage highly skilled professionals to stay in the country.

Another one strategy is to offer incentives for returning home. That means that government can offer incentives for highly skilled professionals who have emigrated to return home, such as tax breaks or funding for starting their own business.

Also, it is important to strengthen education and training programs to ensure that there is a pipeline of highly skilled professionals for the future.

Last but not least is to create partnerships with other countries to share knowledge and resources, which can help retain highly skilled professionals in the country.

By implementing these strategies, governments can help prevent brain drain and retain highly skilled professionals in the country.

As for the ways of supporting innovations that have already been put in place, we can say that Ukraine is actively developing its innovation infrastructure and implementing various mechanisms to support innovations.

Program "An Effective State Instrument for Supporting Small and Medium-Sized Businesses and Stimulating Entrepreneurship Development in Ukraine". This program provides support to small and medium-sized businesses by

financing projects that promote the development of innovative technologies and the introduction of innovations [4].

Ukrainian Capital Investment Fund. This fund finances projects with high potential and can provide not only financial support, but also advice on the implementation of innovative technologies.

Program "Ukraine-Germany: Innovation and Partnership" program. This program promotes cooperation between Ukraine and Germany in the field of innovations and provides support for projects aimed at introducing innovative technologies.

In Ukraine was created the national project Diiia.Business. This is a broad-based Ukrainian project to develop entrepreneurship and exports, which was initiated by the Ministry of Digital Transformation of Ukraine in February 2020. Since May 2021, the project has been implemented by the Ministry of Digital Transformation of Ukraine together with the Office for Entrepreneurship and Export Development, a government agency responsible for the development and support of Ukrainian entrepreneurship in domestic and foreign markets.

Entrepreneur support centres have been opened not only in some Ukrainian cities, but also a consulting centre for Ukrainians Diiia.Business in Warsaw. This program provides assistance in establishing cooperation and partnership between Ukrainian and foreign businesses, promotes Ukrainian goods and services abroad, develops export competencies of Ukrainian business [5].

Ukrainian Startup Fund (USF) is to promote the creation and growth of technology startups in Ukraine at an early stage of development in order to increase their global competitiveness. USF with its partners finance startups to participate in a training program of national and international accelerators. It also offers new financial and non-financial opportunities for startups [6].

As for possible ways of improving support for innovation in the post-war period, the following can be mentioned: Partnerships with international organizations such as the World Bank or the European Union can be essential for supporting innovation in Ukraine. These organizations can provide funding, expertise, and technical assistance to help Ukraine build the necessary infrastructure and institutions for innovation.

For example, the World Bank has a number of programs and initiatives that focus on promoting innovation and entrepreneurship in developing countries. One of these is the World Bank Group's Innovation and Entrepreneurship Program, which aims to support innovation ecosystems in developing countries by providing funding, technical assistance, and policy advice.

Similarly, the European Union has several programs that support innovation in its member states, such as the European Regional Development Fund and the Horizon Europe program. These programs provide funding for research and innovation projects and support initiatives to promote innovation in different sectors.

In addition to providing funding, international organizations can also provide technical assistance and expertise in areas such as intellectual property protection, regulatory reform, and entrepreneurship development. This can help Ukraine build the necessary institutional capacity to support innovation and create an environment that is conducive to innovation and entrepreneurship.

Overall, partnerships with international organizations can play a critical role in supporting innovation in Ukraine. By working together, Ukraine and its international partners can build a strong innovation ecosystem that supports economic growth and development.

Collaboration between different sectors of the economy, such as academia, industry, and government, is essential for supporting innovation in Ukraine. Each sector brings unique resources and capabilities that are necessary for developing new technologies and bringing them to market.

Academic institutions can provide expertise in research and development, as well as access to specialized equipment and facilities. Industry, on the other hand, can provide funding, technical expertise, and access to markets. Government can play a critical role in creating the necessary regulatory environment and providing funding for research and development. Collaboration between these sectors can take many forms, such as public-private partnerships, industry-academic collaborations, and government-industry collaborations.

In Ukraine, collaboration between these sectors has been somewhat limited in the past, but there is significant potential for collaboration to support innovation in the future. For example, Ukraine has a strong base of academic institutions that can provide expertise and research capabilities. However, these institutions often lack the necessary funding and access to industry partners to bring their ideas to market. By collaborating with industry and government, academic institutions can develop new technologies and products that can benefit the economy. Similarly, industry in Ukraine can benefit from collaborating with academic institutions and government to develop new technologies and products.

By partnering with academic institutions, industry can access new ideas and research capabilities, while government can provide funding and incentives for industry to invest in research and development. Overall, collaboration between different sectors of the economy is essential for supporting innovation in Ukraine. By working together, these sectors can create a strong innovation ecosystem that supports economic growth and development.

Conclusion. As international economists, we believe that innovation is essential for sustainable economic growth and development. However, innovation can be particularly challenging in post-war economies where infrastructure and institutions have been damaged. Ukraine, like many other post-conflict countries, needs to

take specific measures to support innovation if it wants to recover and thrive.

The government can invest in education and research to develop a skilled workforce and support the development of new technologies. This can include funding research institutions and universities, as well as promoting partnerships between academia and industry. Also, it can provide tax incentives or grants to businesses that invest in research and development, which can encourage innovation. It can also offer support to startups, such as mentorship, training, and access to funding. The government can strengthen laws and regulations on intellectual property to encourage companies to invest in innovation without the risk of losing their ideas and inventions. The government can encourage international partnerships to support innovation, such as joint research programs or partnerships with foreign firms that have experience in innovation. To support innovation, the government needs to invest in modern infrastructure, such as high-speed internet, transportation, and energy, to support new technologies and make it easier for businesses to innovate.

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