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DIGITALIZATION AND TAX INCENTIVES FOR COOPERATION BETWEEN HIGHER EDUCATION INSTITUTIONS AND BUSINESS IN UKRAINE: THE CASE OF SCIENCE PARKS

Summary

The article is devoted to the study of the role of digitalization and tax incentives in the development of cooperation between higher education institutions and business in Ukraine. Particular attention is paid to the role of science parks as an important element of this interaction. The main mechanisms of tax incentives and digital tools that promote the development of innovation ecosystems and ensure effective cooperation between academia and business are analyzed. It is noted that digital technologies are an important tool for effective management of research projects, improving communication between scientific institutions and enterprises, and accelerating innovation processes. Tax benefits and investment incentives provided to companies engaged in research and development activities within science parks are discussed. Tax incentives create favorable conditions for attracting investment in the science and technology sector, which is important for the development of startups and innovative companies. The main advantages and challenges faced by science parks in Ukraine are identified, and recommendations for improving the digitalization policy and tax incentives in this area are proposed in the article.

Introduction

In the context of globalization and the intensive development of innovative technologies, cooperation between higher education institutions and business is an important factor for ensuring the economic development of a country. In Ukraine, this issue is particularly relevant due to the need to adapt the scientific and educational sphere to the requirements of the modern labor market and business needs. One of the most effective tools for such cooperation is science parks, which ensure the integration of science, education, and entrepreneurship.

Digitalization, as part of global trends, opens up new opportunities for the development of scientific research, communication between academic institutions and businesses, and simplification of cooperation processes through the use of

modern information technologies. At the same time, to stimulate investment in innovation and R&D, it is necessary to create a favorable tax environment that will reduce costs for participants in such innovative projects.

At the same time, there are a number of barriers in Ukraine that hinder the development of this cooperation. These include the insufficient use of digital technologies in science parks, limited use of the latest IT solutions for communication between businesses and higher education institutions, and problems with access to tax incentives and discounts that stimulate investment in research and development. These problems reduce the efficiency of using science parks as tools for the country's innovative development.

Researching this issue is extremely important to develop comprehensive recommendations that can help improve the mechanisms of digitalization and tax incentives, ensuring effective cooperation between the higher education system, science, and business. This will increase the level of innovation activity, promote the development of startups and businesses based on the latest scientific achievements, and create favorable conditions for revitalizing economic dynamics in Ukraine.

Thus, the relevance of the study lies in the need to examine the role of digitalization and tax incentives to improve cooperation between higher education institutions and businesses, in particular through science parks, to develop Ukraine's innovation ecosystem and realize its economic potential.

Chapter 1. The role of science parks in cooperation between education institutions and business in Ukraine

Science parks are one of the main instruments for the development of the innovation ecosystem in Ukraine, as they provide a platform for the integration of scientific research and entrepreneurial activity. Cooperation between higher education institutions and businesses is an important aspect of the country's economic development, and science parks facilitate this cooperation by combining academic knowledge with real market needs. In Ukraine, science parks play a special role in shaping innovation policy that supports startups, research, and technology development.

A science park is a legal entity created on the initiative of a higher education institution and/or a research institution by combining the contributions of the founders to organize, coordinate, and control the development and implementation of science park projects [1].

A science park is created with the aim of developing scientific, technical and innovative activities in a higher education institution and/or a research institution, efficient and rational use of the available scientific potential, material and technical base for the creation and commercialization of the results of scientific and technical activities and their implementation in the domestic and foreign markets [1].

Therefore, science parks are important for the development of scientific and technological progress, support for startups, investment in innovative technologies, and stimulation of the development of the Ukrainian economy.

The role of science parks in cooperation between educational institutions and business in Ukraine can be represented as in Figure 1.

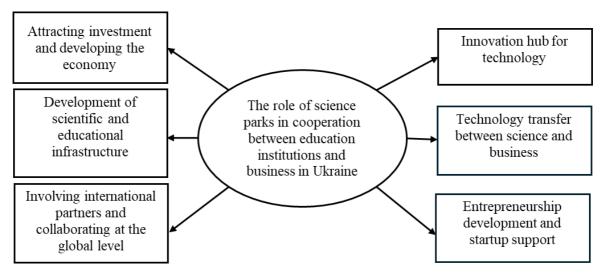


Figure 1. The role of science parks in cooperation between education institutions and business in Ukraine

Source: generated by the authors

Science parks are platforms for creating and implementing innovations. They promote the development of new technologies and products by integrating research with business practices. On their platforms, scientists, university professors, and entrepreneurs can work together on projects that combine scientific achievements with real economic needs. This allows them to create innovative solutions that can be used in various industries, such as information technology, biotechnology, energy, medicine, and others.

One of the main functions of science parks is to facilitate technology transfer, i.e. the transfer of scientific developments from academic institutions to business. This allows for faster implementation of scientific developments in industry and business, which, in turn, increases the competitiveness of companies in the international market. Technology transfer also enables universities to monetize their scientific achievements by generating revenue from the licensing or sale of intellectual property. Science parks facilitate this process through the availability of specialized infrastructures such as laboratories, startup incubators, consulting services for entrepreneurs, and through the creation of joint research projects between businesses and higher education institutions.

Science parks also actively promote entrepreneurship and support startups. They create conditions for launching new companies based on scientific ideas. Usually, science parks have incubators and accelerators that help young entrepreneurs in the initial stages of development by providing them with access to funding, advice, and the necessary resources. This enables students, postgraduates, and young scientists to realize their ideas and startups, and provides them with a platform for cooperation with business. At the same time, science parks help to reduce risks for startups by providing support in research implementation and facilitating market entry through partnerships with the business community.

Cooperation between science parks and business is essential for the country's economic development. The innovations developed in such parks become the basis

for attracting investments both in the domestic and foreign markets. This contributes to the creation of new jobs, the development of high-tech industries, and the country's investment attractiveness.

Science parks can become a platform for cooperation between investors, start-ups and research institutions, allowing them to attract funding to scale up successful projects. Since they often support innovative businesses at the early stages of development, they are important for supporting the innovation of the national economy, helping to create new technologies that can affect Ukraine's economic growth and competitiveness in the international market.

Cooperation of science parks with universities contributes to the development of scientific and educational infrastructure in Ukraine, as they provide access to modern laboratories and technologies, which allows students and teachers to conduct research at a level that meets international standards. This contributes to the improvement of scientific research and the quality of education in general.

In addition, cooperation between higher education institutions and science parks allows us to develop new educational programmes that meet the requirements of the modern labour market. Through close cooperation with business, universities can adapt their curricula to the needs of industry, which results in the training of highly qualified specialists whose qualifications and skills meet market requirements.

Science parks also contribute to Ukraine's integration into the international science and technology community. They create opportunities for cooperation with foreign scientific institutions, international business companies and investors. This will potentially allow Ukrainian scientists and entrepreneurs to access the latest technologies and participate in global research projects.

Thus, science parks in Ukraine can be not only a platform for the development of innovative technologies, but also important institutions for the country's integration into the global economy, contributing to the development of not only national but also international business and science.

Chapter 2. Activities of science parks in Ukraine

The development of science parks in Ukraine is an important aspect of innovation and commercialisation of scientific developments. For today, there are 37 registered science parks in Ukraine, founded by higher education institutions, research institutions and state-owned enterprises. However, according to the Ministry of Education and Science of Ukraine, only 5 of the 37 science parks are actively engaged in innovation [2]. This indicates the need to improve their work and create favorable conditions for development.

Some of the most well-known innovation structures in Ukraine are [2]:

- 1. *UNIT.City* (Kyiv) is the first innovation park in Ukraine and one of the largest. UNIT.City has 110 resident companies, including start-ups and international companies. It has business campuses, R&D centers, VR/AR labs and conference rooms. This park is focused on technology, startups, and modern business solutions [3].
- 2. BIONIC Hill (Kyiv) is an innovation park that supports the development of information technology, biotechnology, energy saving and clean energy.

It has business centers and laboratories for scientific research, as well as premises for start-ups and scientists.

- 3. LvivTech.City (Lviv). This park is an important hub for startups and new technology companies in Lviv. The park is located on the territory of the former Lvivprylad plant and includes offices for startups, laboratories and training centres.
- 4. *Kyiv Polytechnic Scientific Park* (Kyiv) is part of the Kyiv Polytechnic Institute and aims to commercialise the university's scientific developments. It has created conditions for startups, research and engineering projects.
- 5. Harvard Innovation Labs Ukraine (Kyiv) is a part of the global Harvard Innovation Labs network focused on supporting technology startups and entrepreneurship in Ukraine. The park offers residents resources to develop their innovations.
- 6. TechnoPark "Kharkiv" is a Kharkiv science park that supports start-ups and innovative companies in the field of information technology and engineering. The park offers incubators for startups, laboratories and offices for research projects.
- 7. Zaporizhzhia Science and Technology Park (Zaporizhzhia) is a science park that actively supports local startups and companies, focusing on the development of new technologies and engineering solutions.
- 8. Lviv University Science Park "Innovations and Entrepreneurship" is a science park of Ivan Franko National University of Lviv, which was established to develop scientific, technical and innovative activities, efficient and rational use of its intellectual potential and material and technical base for the creation and commercialisation of research results and their implementation in Ukraine and abroad. A science park is an innovative interface between the owners of promising scientific developments, financial institutions and real production, promoting integration within the education-science-business triad [4].

As an example, let us consider the activities of the "Innovation and Entrepreneurship" Science Park of Lviv University. It is worth noting that it is actively working to develop a start-up culture among students of Lviv University and universities across Ukraine. Its experts regularly participate as mentors, jury members, and speakers at various events and projects. This initiative of the park is aimed at supporting innovative ideas and entrepreneurial talents of students by developing skills in pitching their own ideas and developments, conceptualising and presenting them to a wide range of potential investors, and providing specific financial, legal, organisational, communication, marketing and other support for startups.

The Science Park regularly holds the All-Ukrainian competition of student projects Lviv Startup Fest in partnership with the Ukrainian Startup Fund (USF) and the Digital Development Department of the Lviv Regional State Administration [4]. For example, as part of the competition, the science park holds a short startup training school, where participants have the opportunity to take part in trainings and workshops conducted by experts from the Ukrainian Startup Fund (USF). Startup teams have the opportunity to learn how to build a successful business model, effectively manage a team, develop a marketing strategy and raise funding, as well as receive other acceleration and incubation support.

It is also worth noting that the park also provides financial support to startups. At Demo Day Lviv Startup Fest, prizes are awarded based on the results of the competition (usually the prize fund is at least UAH 40,000, the last 2 competitions are approximately UAH 100,000). As of December 2024, 4 such competitions have been held with a total prize fund of about UAH 290,000. This allows us to support the initial initiatives of young startup teams, in particular those at the so-called preseed and seed stages of development. Support is provided not only for projects with a prototype/MVP product or demo application, but also at the stage of promising ideas and solutions [4].

It should be noted that the first competition was held on 22 June 2023, and 8 teams of creative and ambitious students from Kyiv, Kharkiv, Lviv, and Mykolaiv made it to the final. The winner and a cash prize of UAH 20,000 went to the LVIV HYDROGEN team, which worked on a project to develop hydrogen storage and transportation systems based on magnesium alloys (Faculty of Chemistry, Ivan Franko National University of Lviv). The second place and a cash prize of UAH 10,000 went to the Without Borders team with a project to develop an information resource for finding the optimal route according to the criteria of minimum cost and minimum distance, with the possibility of a correct logistical response in the event of an unforeseen change in circumstances in the context of hostilities (Faculty of Applied Mathematics and Informatics, Ivan Franko National University of Lviv).

At the same time, the final of the second Lviv Startup Fest startup competition took place on 8 December 2023. 43 projects were submitted, and 8 of them became finalists. OUTEX and UNIVERA shared the victory and a cash prize of UAH 20,000. The OUTEX project, presented by students of the National University of Kyiv-Mohyla Academy and the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", is a sports application in which professional trainers create exercise sets and the built-in artificial intelligence monitors their correct execution. UNIVERA, a startup created by representatives of Odesa Polytechnic National University and Ivan Franko National University of Lviv, is a "university in a smartphone" – a mobile application that makes all the information students need available in a smartphone and allows them to improve their interaction with universities and gain first-hand experience [4].

The successful case of the Centre for Incubation and Acceleration Support of Startups at the Science Park of Lviv University is of interest, namely that the winner of the first Lviv Startup Fest competition, LVIV HYDROGEN, including the team leader, a chemist and innovator, took part in the Ukrainian delegation at the prestigious deep-tech business summit NORDEEP, held at the Aalto University in Helsinki, Finland in October 2023, where they managed to meet with potential investors, representatives of leading Finnish universities and scientists in related fields and establish contacts with a number of stakeholders [4].

In addition, Lviv University Science Park "Innovations and Entrepreneurship" ensures commercialisation of the results of scientific research and applied developments of the university's biologists by performing scientific and technical works for real business in Ukraine, which allows to realize the potential of scientists

and effectively use the results of developments for the benefit of future consumers of the company's finished products and university scientists. At the request of Ukraine's largest producer of fermented milk products (Halychyna Dairy Company LLC), university scientists developed a technology for the production of Carpaticus bacterial concentrate based on a unique strain of lactic acid bacteria Enterococcus faecium SB18. "Carpaticus" is used to produce a new line of yoghurts called Carpathian with a probiotic effect. For Galychyna, ensuring environmentally responsible production is a priority. The company supports environmental protection initiatives and is looking for eco-friendly alternatives that would preserve the properties of dairy products while protecting the environment and having a positive impact on consumer health. In general, this indicates the successful implementation of innovations and helps to transform the results of scientific research into practically applicable solutions for consumers and businesses [4].

Lviv University Science Park "Innovations and Entrepreneurship" also cooperates with JSC "Halychpharm" (Arterium Corporation). In particular, the science park and biologists carried out genotyping of microbial isolates at the request of Galichpharm JSC. The work included the isolation of genomic DNA of bacterial strains, amplification of the 16S rRNA marker gene, its sequencing and bioinformatic analysis. As of the end of 2024, dozens of isolates provided by the customer were successfully genotyped.

Arterium Corporation, of which Galichpharm JSC is a part, is a modern pharmaceutical company that has created a strong base for the development and implementation of innovations. "Galichpharm" is a leader in the production of herbal medicines, finished medicinal products, phytochemicals based on the extraction of plant medicinal raw materials in Ukraine. The company's product range includes about 90 generic and original medicinal products in tablets, ampoules for injections, solutions, extracts, etc. The company's products meet the latest international quality and environmental standards. Galichpharm JSC successfully passed the audit of the State Service of Ukraine on Medicines for compliance, harmonisation of the conditions for the production of medicines with European requirements and received perpetual licences for the production and wholesale of medicines, and the company's quality management system was certified for compliance with the international quality management standard ISO 9001:2000.

At the same time, Lviv University continues to implement a large-scale programme to modernise and create new research and education innovation laboratories. In particular, the Laboratory of Chemistry and Biotechnology of Natural Compounds is in operation. Here, scientists study the genetic and biotechnological potential of microorganisms as producers of biologically active compounds, including antibiotics, which includes bioinformatics research, chemical analysis of microbial secondary metabolites, search for new natural compounds, etc.

Another important project implemented with the assistance and support of Lviv University Science Park "Innovation and Entrepreneurship" was the creation of the Centre for Professional Testing and Assembly of Batteries, which can be used for both civilian and dual-purpose purposes. The center will allow testing of various battery formats and batteries for compliance with the parameters specified by the

manufacturer, as well as ordering the production of battery packs. The project to create the Centre was implemented with the support of the Department of Economic Policy of the Lviv Regional Military Administration on a co-financing basis under the Programme for Promoting Innovative and Scientific and Technological Development in Lviv Region for 2021-2025. Thus, the project promotes an innovative approach to the production and testing of batteries that can be used to power various types of digital devices [4]. Such co-financing cases can generally be extrapolated at both the regional and national levels to implement innovative projects that will be useful for the country, in particular given the need for post-war recovery.

Also, the Science Park, using the potential of the University and in cooperation with leading practitioners, including from abroad, offers a wide range of certified courses and advanced training programs. Their value lies in the maximum approximation of the content of courses and programs to market demands, compliance with modern trends. Successful specialists with experience of practical work in the relevant field are involved in their teaching, who analyze practical cases and offer applied solutions to existing problems of students. Depending on the specifics, the offered certified courses and programs are useful for business representatives, state authorities and local governments, public organizations, educators and scientists.

For example, the Lviv University Science Park offers the following certified Courses:

- preparation course for the foreign language test (English) of the unified entrance exam for master's degree;
 - Microsoft POWER BI for business;
 - working with Google Sheets for business;
 - Facebook and Instagram advertising for beginners;
 - marketing management in the field of production and sales of goods;
 - management and branding in creative industries;
 - marketing and PR in the IT sector;
 - media literacy and critical thinking;
 - online training in public procurement;
 - psychology of business and management;
 - taxes for small businesses;
- "Meta-skills" skills of the new reality: self-preservation and management of personal effectiveness [4].

It is also worth mentioning that the Lviv University Science Park has an expert group on sanctions policy and asset tracing. The main areas of work of the expert group are as follows:

- generalization of sanctions practice of different countries and international organizations and systematization of international and national legal support for sanctions regimes;
- formation of criteria for assessing the effectiveness of sanctions regimes and substantiation of the choice of sanctioned objects;

 design of coordination mechanisms for sanctions policy and asset tracing, as well as creation of new information technologies for sanctions control and asset tracing systems.

The expert group actively interacts with various educational institutions, scientific institutions, state bodies of Ukraine, international organizations, research communities and civil society institutions. A special area of work of the Expert Group on sanctions policy and asset tracing is the search for cultural values from the occupied territories of Ukraine. Tasks to search for cultural values are widely implemented in the educational process of University students, in particular through industrial or pre-graduate practice at the Science Park. The corresponding activity is designed not only to restore legal and historical justice, but is also a significant factor in the personal and analytical development of young people involved in clarifying the fate of cultural values [4].

However, despite the important role of science parks in the development of the innovation economy, they face a number of problems, including:

- insufficient funding. Science parks often have limited resources to support and develop start-ups, which can hinder incubation and acceleration;
- bureaucratic barriers. The procedure for registering and managing start-ups, research projects and investments is often complicated and time-consuming, making it difficult for parks to operate;
- low level of government support. Ukraine still has problems with the institutionalisation and provision of clear and specific incentives for science parks, which limits their development and ability to attract investment, including from foreign actors;
- weak interaction with international partners. Ukrainian science parks do not yet have sufficient access to international science and business networks, which limits their potential.

Therefore, in order to stimulate the activities of science parks in Ukraine, it is necessary:

- to increase the level of state support by providing tax benefits and other incentives for innovative enterprises;
- to develop infrastructure for start-ups, in particular to create more incubators and accelerators that would support start-ups, including financially, especially in the pre-seed and seed stages;
- to involve international partners and investors more actively in the development of joint research infrastructures and business projects;
- to create conditions for the commercialisation of scientific developments by simplifying technology transfer processes.

Chapter 3. Digitalization and tax incentives as a factor in the development of cooperation between business and higher education institutions

Digitalization of cooperation between higher education institutions and business in Ukraine is an important step towards the modernization of the economy and the development of innovative technologies. Interaction between universities and the business environment is crucial for the accelerated implementation of scientific achievements in production, the development of startups and improving the level of personnel qualifications. It involves the use of information and communication technologies to automate and optimize scientific and production processes. Digitalization allows you to reduce the time for research, facilitates access to data, increases the efficiency of communications between business and scientific institutions. In the context of stimulating the development of science parks, digitalization involves:

- creation of online platforms for interaction between business and scientists;
- using of big data (Big Data) for project management and market analysis;
- using of cloud technologies for storing and processing scientific and business data;
 - development of digital communications and organization of remote work, etc.

In accordance with the above-defined directions, we can highlight the following advantages of digitalization of cooperation between higher education institutions and business:

- virtual platforms and tools for video conferencing, joint work on projects contribute to the rapid exchange of information, knowledge and ideas between scientists, students and entrepreneurs and are the basis for the development of innovative projects. This makes it possible to quickly respond to market needs and ensure a high level of integration between the scientific and business environment;
- analysis of data generated in the process of scientific research helps to optimize business processes and make more informed decisions, and also allows you to identify new trends in the development of technologies;
- the use of cloud services allows you to store large volumes of data, which facilitates access to them, and also provides more effective project management, especially in the field of research and development;
- online platforms allow to involve not only scientists and entrepreneurs from different regions of Ukraine, but also international partners in cooperation;
- digitalization helps to bring innovative developments to the market faster and commercialize scientific ideas.

However, along with the advantages, certain challenges arise in practice, such as:

- low digital literacy. Despite the general development of digital technologies, certain enterprises and universities have problems adapting new tools;
- infrastructure problems. Not all science parks have a sufficiently developed technical base for full-fledged digitalization;
- lack of a unified strategy. Ukraine does not have a comprehensive strategy for the development of digital tools in the field of cooperation between education and business, which may hinder innovative development.

Digitalization of cooperation between higher education institutions and business, in particular based on the use of the science park platform, has significant potential for commercialization of research and development results in Ukraine. With increased investment in infrastructure and the development of startups, this area can become an important factor for the modernization of the domestic economy.

There are already several initiatives in Ukraine that contribute to the digitalization of science parks.

For example, the creation of online platforms for submitting applications for innovative projects, the use of cloud technologies for storing and processing scientific data, the development of scientific and educational portals for cooperation between universities and business.

Another factor that plays a key role in motivating business to invest in educational projects and scientific research is tax incentives. Tax incentives for cooperation between business and higher education institutions can potentially consist of the following:

- tax breaks for investments in education reducing the tax burden for companies that finance educational programs;
 - reimbursement of research costs to encourage businesses to finance research;
- grant programs and state support providing state subsidies for businesses investing in education and technological developments;
- creation of innovation clusters simplification of taxation for companies working in cooperation with universities;
- tax incentives for science parks include exemption from income tax for startups based in science parks, tax holidays for a certain period, as well as a reduction in the VAT rate for scientific developments and research;
- fiscal benefits for investments in scientific infrastructure reducing the tax burden for companies investing in the creation of laboratories, research centers and other innovative facilities.

It is worth noting that in recent years there has been some progress in efforts to create a favorable tax environment for science parks and innovative companies. However, in order for tax incentives to become more effective, it is necessary to improve the existing legislation, in particular in terms of specifying the mechanisms for providing tax benefits for science parks and startups.

In this context, we note a significant step by the government, when in December the Ministry of Education and Science of Ukraine proposed for public discussion the draft law "On Amendments to Certain Laws of Ukraine on Stimulating the Development of Science Parks" [5]. The relevant changes were presented at the event Science City Ecosystem: Connecting business and science. The draft law provides for amendments to the laws of Ukraine "About Science Parks", "About State Registration of Legal Entities, Individual Entrepreneurs and Public Organizations", "About Lease of State and Municipal Property", "About Scientific and Scientific and Technical Activities", "About Higher Education", "About Management of State Property", "About Stimulating the Development of the Digital Economy in Ukraine", "About Public Procurement", as well as to the Tax and Customs Codes [6].

In February 2025, the Science. City project was announced – one of the initiatives within the Strategy for Digital Development of Innovations of Ukraine WINWIN 2030. The project aims to intensify the work of science parks, create conditions for the interaction of science, education and business, ensuring transparency and support at each stage of development.

The press office of the Ministry of Digital Transformation of Ukraine defines Science City as follows: "This is a comprehensive reform of the institute of science parks, which will create conditions for cooperation between scientific institutions, universities, business and the state. This initiative will help overcome barriers that inhibit innovative activity (tax burden, complex procurement procedures, bureaucratized operational procedures), integrate science parks into the legal regime of Diya. City on flexible terms, create conditions for the implementation of privileges for the import of equipment and facilitate the sphere of technology transfer in Ukraine" [7].

International partners emphasized the importance of the project for Ukraine's economic recovery. They emphasized that Science.City has the potential to strengthen Ukraine's position as a regional leader in innovation, attracting investment and creating jobs in high-tech industries [6].

The following results are expected to be achieved within the framework of the implementation of the Science. City draft law:

- an increase in the number of potential partners. Changes to the current legislation will facilitate cooperation between science parks and any organizations, which will increase opportunities for joint projects;
- tax benefits. The draft law provides for the exemption of HEIs, scientific institutions and science parks from VAT on the following transactions [8]:
- on the supply of services in fundamental and applied research, scientific research and development works;
- on the free transfer of instruments, equipment, materials, except for excisable ones, to science parks included in the Register of Science Parks;
- on the supply of intellectual property rights by higher education institutions and scientific institutions for the benefit of science parks, the participants (founders) of which are such institutions and institutions;
- customs benefits. The draft law provides for exemption from taxation of science parks to ensure their own activities and the implementation of park projects when they import scientific instruments, equipment, spare parts and consumables for them, reagents, samples, scientific literature into the territory of Ukraine. The draft Law of Ukraine also provides that production equipment imported into the customs territory of Ukraine by a science park and its partners within the framework of project implementation is exempt from import duty;
- simplification of leases and purchases. According to the draft, science parks will have the opportunity to independently conduct purchases for private funds and lease state property without auctions;
- digitalization of processes. The project provides that all administrative procedures will be carried out through the national electronic scientific and innovation system (URIS), which will significantly simplify such processes;
- performance evaluation. The results of science parks will be taken into account when certifying universities, scientific institutions and when distributing state funding for them;

- modern infrastructure. The project provides for privileges for customs clearance of scientific equipment, as well as shared laboratories, collective use centers and temporary free use of equipment for science parks; simplification of registration of science park projects, in addition, the project abolishes restrictions on project implementation terms;
- protection mechanisms. According to the expectations of the Ministry of Education and Science, Science City will form additional conditions to prevent abuse of the status of science parks;
- transparency. After the implementation of the changes, information about all science parks, their development programs and work results will be available for review in an open register [2].

The Ministry of Education and Science of Ukraine expects that such measures will help increase the competitiveness of universities, scientific institutions, and parks in the market, however, it remains an open question how quickly these changes will be implemented in Ukrainian legislation and whether they will be real and effective in terms of practical use by science parks.

Therefore, the Science City project, as a whole, may have the potential to stimulate the development of science and technology in Ukraine, activating the transformation of the national economy towards innovation. By creating modern conditions for scientific research and technological startups, this project may become an important driver of socio-economic development and strengthening the country's international competitiveness.

Conclusions

Science parks can potentially play an important role in ensuring effective cooperation between higher education institutions and business in Ukraine. They should become a powerful tool for developing innovations, creating new enterprises, supporting startups and attracting investments. Joint research, technology transfer and development of new products based on science parks will contribute to strengthening the country's economy and increasing its competitiveness at the international level.

Digitalization is an important factor contributing to more effective cooperation between educational institutions and business. It allows optimizing the processes of knowledge transfer, innovation and technology, and also provides access to global resources, opening up new opportunities for communication, joint project development and technology transfer.

Tax incentives also play a key role in encouraging businesses to invest in science and education. The availability of tax breaks for businesses that actively collaborate with scientific institutions can significantly increase the motivation to create joint projects, research, and innovation.

The development of science parks is an important stage in creating an innovation ecosystem that can promote economic growth and technological progress.

However, to achieve maximum effect, it is necessary to:

1. Increase the level of digitalization of science parks by introducing the latest information and communication technologies to automate and optimize processes.

- 2. Expand tax benefits for participants in science parks, creating favorable conditions for investing in research and development activities.
- 3. Optimize mechanisms for cooperation between higher education institutions and business through joint scientific projects, startups and innovation programs.
- 4. Expand the involvement of foreign stakeholders in the context of real international cooperation, i.e. encourage investment by providing special tax benefits for foreign partners who will invest in science parks in Ukraine.

Despite the fact that digitalization and tax incentives open up new opportunities for development, there are challenges, in particular related to the integration of startups and small businesses into science park ecosystems. It is also necessary to consider the risks associated with the high costs of digital infrastructures and the need for professional training of personnel to work with new technologies.

In general, to achieve significant results in the development of science parks and strengthen ties between science and business, Ukraine needs to create a comprehensive strategy that will include investments in technology, improving the tax system and supporting innovation initiatives. Thus, the successful implementation of the concept of cooperation between education and business through science parks requires an integrated approach, including digitalization, tax incentives, and state support for innovation.

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