UDC 004.9

doi: 10.26906/SUNZ.2023.4.106

D. Tyshchenko, T. Franchuk, R. Zakharov, I. Karpunin

State University of Trade and Economics, Kiev, Ukraine

INNOVATION PARKS CREATION IN THE TERMS OF THE INFORMATION SPACE FUNCTIONING

Abstract. The article examines the leading principles of designing and creating innovative parks in Ukraine. The organizational and legal foundations of the organization of the innovation park were analyzed, the components of their infrastructure, components of the service provision system, as well as sources of financing were investigated. The purpose of the article is to analyze the prospects for the development of innovation parks in the conditions of the functioning of the information space. Prospective directions for the use of domestic and foreign experience of innovation parks in conditions of active development of the information space have been determined. The experience, history of creation, creation and development prospects and features of the implementation of innovation parks were analyzed, the possibilities of reorganization and development of modern innovation parks of Ukraine were determined, and ways of their improvement were proposed. The main conditions for creating a favorable environment are determined, the main approaches that have the greatest financial and economic efficiency in the chosen field of activity are determined, taking into account the current and modern requirements for the development of all branches of production, in particular, the field of information and telecommunication technologies. The main active projects and innovation parks in Ukraine, which are actively developing and have great potential, despite the difficult conditions in which the country has recently been, have been studied. It has been proven that modern science and innovation parks have one of the leading values, in particular, the processes and results of their interaction with leading companies in the IT industry, which affect the quality of training of specialists who will have relevant knowledge in the field of information and communication technologies, have been investigated.

Keywords: innovation park, information management system, information technologies, information technologies, startup.

Introduction

The IT sector today is one of the major areas of social development. But there are also systemic problems that hold back this direction in Ukraine from even more rapid development. Let's analyze what these problems are and how they can be solved. There is a rapid increase in demand for specialists in the IT sector.

The personnel market cannot keep up with this growing need, and there are two main problems with the training of specialists: the IT field is relatively new and it is developing very quickly. The Law of Ukraine on Innovation Parks defines the legal and organizational principles for the creation and operation of innovation parks on the territory of Ukraine in order to ensure the development of the economy of Ukraine through innovation, the activation of innovative activities, the development of modern innovation infrastructure, the production and introduction of innovative products on the domestic and foreign markets[1-5].

Analysis of recent research and publications. A number of scientists are paying attention to the problem of creating and developing innovation parks in Ukraine and the world.

Scientists study the experience of implementing modern innovative technologies in the leading countries of the world and prepare their own proposals for methods and means of developing innovation parks in the conditions of active development of the information space.

Rybytska O., Karpyak A., Bublyk M. in their numerous works study the issues of world and domestic experience in design, development, use, future changes, development trends and implementation of modern means of information and communication technology implementation based on research and interpretation of the obtained results, which were made public at well-known sites and gatherings at the World Economic Forum[6].

Borodina O., Alyoshin S., Nosach O.B analyze the information society and the problems of the development of the informatization of the economy [7].

Melnyk M., Korcelli-Oleynichak E., Chorna N., Popadynets N. study the development of regional IT clusters in Ukraine through the prism of institutional and investment dimensions [8].

A. M. Hafiyak investigates the problems of business analytics and its connection with modern IT technologies, analyzes and improves the classification of information and analytical systems [7, 9, 10].

O. Krot analyzes technological revolutions of Ukraine, the experience of Ukraine and the world [11].

Chernyuk V. draws attention to the state and problems of science parks in Ukraine [12].

Main part

It can be argued that innovation activity is a highly costly activity where it is impossible to do without a high degree of risk, which is caused by an increase in risk in the process of solving the assigned task. Insufficient stimulation of innovation activity leads to a lag in the development of all areas of science and practice, namely in the development and use of information technologies in all areas. According to the Draft Law of Ukraine "On Innovation Parks", they are considered as a state communal institution, which should be organized through the development of scientific and technical or innovative activities [1-5, 13, 14]. Analyzing the main stages of the process of initiation, design and development of innovation parks for the implementation of cooperation between enterprises of various forms of ownership, which solve issues in all spheres of activity, in particular in the field of information and telecommunication technologies with the aim of accelerating the speed of economic growth of many enterprises and business development thanks to its support at the state level. It is the expansion of potential connections with specialists in this field and the provision of opportunities for implementation and development, in particular due to the identification of potentially profitable projects. Among the leading functional capabilities of innovation parks, the following can be distinguished [1-5]:

performing scientific and technical analysis of research for the purpose of implementing innovative ideas;

work on the creation of innovative products, implementation of a set of steps for their phased implementation in the medium and long term;

implementation of a set of actions regarding design, organization, implementation of innovative ideas in production;

search for sources and funds for financing innovative projects for the purpose of their implementation in scientific, industrial and other innovation parks;

provision of opportunities and support for the development of innovative activities of enterprises;

stimulation of innovation; ensuring the organization of mutual assistance of all subjects of the innovation environment;

creation of a comfortable environment for stimulating the increase in the efficiency of all types of scientific and technical activities affecting the totality of the combined processes of the innovation park;

development of a number of innovative projects to solve current issues affecting the development and implementation of a system of various researches and analysis of the implementation of innovative projects.

List of services provided by the innovation park looks as shown in Fig. 1.

Among the main types of innovation parks, scientific and technological, industrial, and economic companies are distinguished.

An innovation park can include a scientific and technological park, an industrial park, an innovation cluster, as well as other components of the modern infrastructure in the field of innovation.

The essential conditions of the agreement on joint activity include:

the purpose of its conclusion;

information about the members of the innovation park;

rights and obligations of participants of the innovation park;

the responsibility of the participants of the innovation park for obligations arising in connection with participation in the innovation park or the implementation of projects of the innovation park, List of services provided by the innovation park

	Conducting an audit of educational, scientific and technical and/or innovative activities
	Financial and economic support for the implementation of investment
	Providing advice on obtaining licenses, patents or other special
	permits in accordance with the law Search for sources of financing
	Co-financing of scientific research
	and innovative projects Attraction of investments, venture
	financing; providing support to start- ups
	Carrying out scientific examination, examination of business plans

Fig. 1. List of main services provided by the innovation park

the responsibility of the participant of the innovation park in the event of his exit from the innovation park before the completion of the implementation of the corresponding project, according to obligations, which arose during his participation in the contract;

priority activities of the innovation park; management bodies and the governing body;

the procedure for financing the activities of management bodies and the governing body;

the procedure for accepting new participants of the innovation park;

the procedure for terminating the agreement on joint activities.

Among the components of the infrastructure of the innovation park, it is possible to single out the components of the modern one innovative, research and other infrastructure that help the successful conduct of scientific and technical, innovative and other entrepreneurial activities mediated by modern means of information and telecommunication technologies.

Schematically, the main components of the infrastructure of the innovation park are currently reflected in the components of the scheme shown in Fig. 2.

In the innovation park, the opportunity to lay the foundation for open innovation and limitless possibilities in the field of information technologies is important.

These opportunities are created thanks to the emergence and implementation of local ideas that have a global impact on the development of the information environment.

The success of an innovative technology company, in particular in the field of information technology, is only the first step in the modernization of all other companies and businesses of various industries.

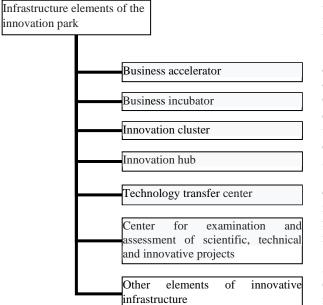


Fig. 2. Infrastructure elements of the innovation park

Today, we have successful projects created by domestic specialists, but the main attention of scientists is directed to the means of improving them, changing

Table 1 – The largest innovation parks of Ukraine

their scalability and increasing their number. Information about the most famous innovation parks of Ukraine is presented in Table 1[14].

The development of modern innovations, which cause the development of technologies, provide an opportunity for their modification and implementation. Certain technical and technological means help to solve certain tasks, in particular, new modern office centers with infrastructure equipped for technological companies. Personnel issues also require attention and analysis.

The main idea of modern start-ups and innovations can be formulated so that today, development is mediated by rapid informatization processes in all fields, as a result of which knowledge is spread instantly.

The conducted analysis determines the expediency and necessity of further study of the proposed concept of modern innovations, in particular in the field of innovative technologies, the main purpose of which is the continuous encouragement of investors, specialists, scientists, stakeholders for further actions regarding the study of all relevant public requests for the introduction of innovative technologies, specifications and generalization obtained results of actions taken to solve the problem of financing ideas.

Name of the park (City)	Year of establishment of the park	Area, thousand square meters
Unit.City (Kyiv)	2017	250
LvivTech.City (Lviv)	2020	60
Industrial equipment. Renovation (Ivano-Frankivsk)	2017	37,8
Bila Tserkva (Bila Tserkva)	2019	700
Ecopolis KhTZ (Kharkiv)	2020	500

The following points can be noted in the innovation park development strategy: support and implementation of flexible workspace for new and wellknown enterprises; encouraging the continuous operation of business incubators and accelerators; systematic organization and holding of various seminars, meetings, networking; combination of specialists and investors around innovative ideas; organization of educational processes with the possibility of further professional development, internships in leading global and domestic companies.

The main tasks of the innovation park are to establish effective cooperation between educational institutions, businesses and the city community in order to speed up: development of new technological solutions; technology transfer; reengineering and creation of own innovative solutions; incubation and scaling of startups; creation of new jobs; modernization and transformation of educational services, due to the creation of a platform and material base for scientific research and joint projects. World experience shows that the economic growth of the developed countries of the

108

world and their individual regions is based on the field of knowledge and high technologies, the effective combination of which guarantees rapid progressive development. One of the most successful forms of such integration are innovation parks, which are characterized by a high level of innovative activity and represent a form of integration of science and production.

Conclusions

Many investors investing in IT and operating in the international market have to look for workarounds, creating numerous risks for themselves. Therefore, in Ukraine, one of today's tasks is to create a favorable environment where people want to implement their knowledge and skills in the chosen field of activity, receive decent remuneration for their work and satisfy mandatory needs. These requirements are relevant for the development of all branches of production, in particular, the field of information and telecommunication technologies. This approach will bring positive changes throughout the economy. By

implementing at least a few of the above solutions, our country will have a chance to become an IT giant not only in our region, but also on a global scale. The number of such projects in Ukraine is growing rapidly. Because only through direct contact and interaction between students and existing IT companies can we develop new specialists who will have up-to-date knowledge and understand how the industry works in practice. That is why the development of science parks in the IT sector in Ukraine can lead to rapid growth of innovation in this area. Export of IT services is one of the largest categories of service exports in Ukraine. But the problem is that most of the services provided are often outsourced. In other words, the market now works more to fulfill someone else's order, to create products based on someone else's ideas and for foreign owners. Parks compete with leading IT companies, startups, creative firms and even great corporations. The park provides its residents with a package of additional services for business development. The mission of innovation practice is to create a unique innovation platform where it will be easy for leading companies, start-ups and experts to find one, grow and grow, highlighting the quality of their products and services.

REFERENCES

- 1. Проект Закону України про інноваційні парки URL: https://mon.gov.ua/ storage/app/media/ gromadskeobgovorennya/2021/10/13/Pro.innovatsiyni.parky/HO.proyekt.ZU. Pro.innovatsiyni.parky.docx
- Проект Закону про внесення змін до Митного кодексу України щодо розвитку вітчизняного виробництва шляхом стимулювання залучення інвестицій в реальний сектор економіки через індустріальні парки URL: http://w1.c1.rada.gov.ua/pls/zweb2/webproc41?pf35 11=58869
- Проект Закону про внесення змін до деяких законодавчих актів України щодо діяльності технологічних парків URL: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf35 11=55805
- Проект Закону про внесення змін до деяких законів України щодо активізації діяльності наукових парків URL: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_2?id=& pf3516=4236&skl=10
- Проект Закону про внесення змін до деяких законодавчих актів України щодо діяльності технологічних парків URL: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf35 11=55805
- 6. Bublyk M.I., Karpiak A.O., Rybytska O.M. The perspectives of IT industry development in Ukraine on the basis of data analysis of the world economic forum. Innovative management: theoretical, methodical, anapplied grounds. Pražský Institut zvyšování kvalifikace Prague institute for Qualification Enhancement. 2018. 115 -128.
- 7. Hafiiak A.M., Borodina O.O., Alyoshin S.P., Nosach O.B. The Information Society and Informatization Development Problems of Economy. International Journal of Engineering & Technology. 7. (4.8). 2018. 364 369.
- Melnyk M., Korcelli-Olejniczak E., Chorna N., Popadynets N. Development of Regional IT clusters in Ukraine: institutional and investment dimensions. Economic Annals-XXI, (173). 2018. 19-25.
- 9. Гафіяк А. М. IT-технології та бізнес-аналітика. Економіка та суспільство, 15. 2018. URL: https://economyandsociety.in.ua/journals/15_ukr/143.pdf
- Hafiiak A., Borodina O., Diachenko-Bohun A. Application of genetic programming tools as a means of solving optimization problems. Control, Navigation and Communication Systems, 6 (52). 2018. 58–60.
- 11. Krot O. 8 technological revolutions of Ukraine. The seventh revolution: technology parks. URL: https://project.liga.net/projects/tehnoparki/
- 12. Чернюк В. Наукові парки в Україні стан та проблеми діяльності. Теорія і практика інтелектуальної власності, 1. 2016. 68 75.
- 13. Innovative parks: the experience of Ukraine and the world URL: https://business.ua/uk/innovatsijni-parki-dosvid-ukrajini-tasvitu
- 14. Innovation parks: what they are and where they will be created in Ukraine URL: https://www.slovoidilo.ua/2021/04/16/infografika/suspilstvo/innovaczijni-parky-ce-vony-budut-stvoreniukrayini

Received (Надійшла) 22.09.2023

Accepted for publication (Прийнята до друку) 29.11.2023

Створення інноваційних парків в умовах функціонування інформаційного простору

Д. Тищенко, Т. Франчук, Р. Захаров, І. Карпунін

Анотація. У статті досліджено провідні принципи проектування та створення інноваційних парків в Україні. Проаналізовано організаційно-правові основи організації інноваційного парку, досліджено складові їх інфраструктури, складові системи надання послуг, а також джерела фінансування. Метою статті є аналіз перспектив розвитку інноваційних парків в умовах функціонування інформаційного простору. Визначено перспективні напрямки використання вітчизняного та зарубіжного досвіду інноваційних парків в умовах активного розвитку інформаційного простору. Проаналізовано досвід, історію виникнення, створення та перспективи розвитку та особливості впровадження інноваційних парків, визначено можливості реорганізації та розвитку сучасних інноваційних парків України та запропоновано шляхи їх удосконалення. Визначено головні умови створення сприятливого середовища, визначено основні підходи, що мають найбільшу фінансово-економічну ефективність в обраній сфері діяльності, з урахуванням актуальних та сучасних вимог щодо розвитку всіх галузей виробництва, зокрема, сфери інформаційних і телекомунікаційних технологій. Вивчено основні діючи проекти та інноваційні парки в Україні, що активно розвиваються та мають великий потенціал, незважаючи на ускладнені умови, в яких останній час перебуває країна. Доведено, що сучасні наукові інноваційні парки мають одне з провідних значень, зокрема, досліджено процеси та результат їх взаємодії з провідними компаніями IT галузі, що впливають на якість підготовки спеціалістів, які матимуть актуальні знання в галузі інформаційно-комунікаційних технологій.

Ключові слова: інноваційний парк, інформаційна система управління, інформаційні технології, стартап.