

# **MODERN RESEARCH IN SCIENCE AND EDUCATION**



**PROCEEDINGS OF III INTERNATIONAL  
SCIENTIFIC AND PRACTICAL CONFERENCE  
NOVEMBER 9-11, 2023**

**CHICAGO  
2023**

# **MODERN RESEARCH IN SCIENCE AND EDUCATION**

Proceedings of III International Scientific and Practical Conference

Chicago, USA

9-11 November 2023

**Chicago, USA**

**2023**

## **UDC 001.1**

The 3<sup>rd</sup> International scientific and practical conference “Modern research in science and education” (November 9-11, 2023) BoScience Publisher, Chicago, USA. 2023. 1096 p.

## **ISBN 978-1-73981-123-5**

The recommended citation for this publication is:

*Ivanov I. Analysis of the phaunistic composition of Ukraine // Modern research in science and education. Proceedings of the 3rd International scientific and practical conference. BoScience Publisher. Chicago, USA. 2023. Pp. 21-27. URL: <https://sci-conf.com.ua/iii-mizhnarodna-naukovo-praktichna-konferentsiya-modern-research-in-science-and-education-9-11-11-2023-chikago-ssha-arhiv/>.*

### **Editor**

**Komarytskyy M.L.**

*Ph.D. in Economics, Associate Professor*

Collection of scientific articles published is the scientific and practical publication, which contains scientific articles of students, graduate students, Candidates and Doctors of Sciences, research workers and practitioners from Europe, Ukraine and from neighbouring countries and beyond. The articles contain the study, reflecting the processes and changes in the structure of modern science. The collection of scientific articles is for students, postgraduate students, doctoral candidates, teachers, researchers, practitioners and people interested in the trends of modern science development.

**e-mail: [chicago@sci-conf.com.ua](mailto:chicago@sci-conf.com.ua)**

**homepage: <https://sci-conf.com.ua>**

©2023 Scientific Publishing Center “Sci-conf.com.ua” ®

©2023 BoScience Publisher ®

©2023 Authors of the articles

156. *Макарченко В. В.* 976  
ЗАГАЛЬНИЙ АЛГОРИТМ ДОСЛІДЖЕННЯ СТРАТЕГІЧНОГО ПОТЕНЦІАЛУ ПІДПРИЄМСТВА ЯК ОБ'ЄКТА УПРАВЛІННЯ
157. *Наконечна В., Мельянова Л. В.* 983  
СТРАТЕГІЇ ЗРОСТАННЯ ПРИБУТКОВОСТІ ПІДПРИЄМСТВ
158. *Намлієва Н. В.* 990  
ФІНАНСОВІ ІНСТРУМЕНТИ ПІДТРИМКИ РОЗВИТКУ ІННОВАЦІЙНОЇ ДІЯЛЬНОСТІ СУБ'ЄКТІВ ПІДПРИЄМНИЦТВА
159. *Оберемок І. І., Оберемок Н. В.* 998  
ШЛЯХИ ФОРМУВАННЯ АРТЕФАКТІВ РЕСУРСІВ НЕОБХІДНИХ ДЛЯ ЗАБЕЗПЕЧЕННЯ ПРОЦЕСІВ РОЗВИТКУ ОРГАНІЗАЦІЇ
160. *Панченко О. М., Мельник О. М.* 1002  
ЗАСТОСУВАННЯ ПОКАЗНИКІВ НЕФІНАНСОВОЇ ЗВІТНОСТІ В ПРОЦЕСІ УПРАВЛІННЯ СТАЛИМ РОЗВИТКОМ ПІДПРИЄМСТВА
161. *Слесар Т. М., Шара Є. Ю., Соляник Д. О.* 1009  
ОСОБЛИВОСТІ ОБЛІКОВОЇ ПОЛІТИКИ ОСНОВНИХ ЗАСОБІВ
162. *Ярова Н. В., Воркунова О. В., Куликов Д. В.* 1016  
ПІДВИЩЕННЯ ЕНЕРГОЕФЕКТИВНОСТІ МОРСЬКИХ ПОРТІВ

#### LEGAL SCIENCES

163. *Berekashvili Ketevan* 1019  
THE BURDEN OF PROOF DISTRIBUTION STANDARD IN LABOR DISPUTES ACCORDING TO THE NATIONAL COURTS OF GEORGIA
164. *Zenova M. V., Urazovska O. S.* 1023  
THE ESTABLISHMENT OF THE REGIONAL INNOVATION HUBS AS THE BASIS OF THE DEVELOPMENT OF INNOVATIVE INFRASTRUCTURE
165. *Булкат М. С.* 1029  
ПРОБЛЕМИ ВИЗНАЧЕННЯ ПРЕДМЕТА ТА МЕТОДУ АДМІНІСТРАТИВНОГО ПРАВА
166. *Коваленко І. А., Адобаш М. В.* 1038  
ЗНАЧЕННЯ ЦИВІЛЬНО-ПРАВОВИХ ДОГОВОРІВ В СУСПІЛЬСТВІ ТА ЕКОНОМІЦІ УКРАЇНИ
167. *Косцова А. С.* 1044  
МОДЕЛІ КОНСТИТУЦІЙНОГО КОНТРОЛЮ НА ПРИКЛАДІ КОНСТИТУЦІЙ УКРАЇНИ ТА ЗАРУБІЖНИХ КРАЇН
168. *Лихвар В. В.* 1051  
МІЖНАРОДНО-ПРАВОВЕ РЕГУЛЮВАННЯ ЗАСТОСУВАННЯ РЕТОРСІЇ ЯК ФОРМИ ПОЛІТИЧНОЇ ВІДПОВІДАЛЬНОСТІ ДЕРЖАВ. ДОСВІД ЗАСТОСУВАННЯ США ТА ІЗРАЕЛЕМ ВІЙСЬКОВИХ РЕТОРСІЙ



**THE ESTABLISHMENT OF THE REGIONAL INNOVATION HUBS AS  
THE BASIS OF THE DEVELOPMENT  
OF INNOVATIVE INFRASTRUCTURE**

**Zenova Maryna Volodymyrivna**

The Head of the Innovation Ecosystem Development Unit of  
the Division for Development of Innovations of the IP Office

**Urazovska Olha Serhiivna**

The Deputy Head of the Innovation Ecosystem Development Unit of  
the Division for Development of Innovations of the IP Office

**Annotation:** the basic principles of establishing regional innovation hubs as the basis for the development of innovation infrastructure are considered. The directions of formation and development of the modern innovation infrastructure of the regions are determined. The main elements of the development of regional innovation infrastructure are investigated. The principles of formation and development of regional innovation hubs as the basis for the development of innovation infrastructure are determined. The mission is defined: to unite the main participants of the innovation process at the regional level to increase the efficiency of innovation activities and increase the innovation potential.

**Keywords:** innovation hub, innovations, region, regional innovation policy, innovation infrastructure, regional innovation infrastructure.

Regional innovation hubs are one of the latest trends in economically developed countries, playing a key role in the development of the national innovation ecosystem. The competition for economic and technological leadership is intensifying in the international arena and national, regional and local governments are looking for new cost-effective ways to stimulate working places creation and economic growth.

The Resolution of the Cabinet of Ministers of Ukraine dated July 21, 2021, No. 750 «On Promoting the Implementation of the Industry 4.0 Technological

Approach in Ukraine» (hereinafter - the Resolution) and the corresponding provision offer to create an innovation hub within the scope of activity of the Ministry of Economy. Industry 4.0 envisages comprehensive digitalization and automation of production processes and management in the real economy sector. The main tasks of the innovation hub are the following: coordination and fulfillment of measures to provide state support for the implementation of innovations in the real sector of the economy; provision of consulting services on the implementation of innovations in the real sector of the economy; conducting competitions for the selection of projects for the implementation of innovations in the real sector of the economy for providing state support. According to the Resolution, the working structures are defined as centers based on the infrastructure of higher education institutions, scientific institutions, scientific and industrial parks on the initiative of, in particular, local executive authorities, bodies of local self-government, business entities, which will carry out further examination of selected projects and their acceleration. It is recommended by the Resolution to consider the issue of target funds creation to finance projects on the implementation of the «Industry 4.0» technological approach of the above-mentioned centers in the respective regions, which will additionally contribute to their social and economic development [1].

Two approaches, on which economic foundations are based, are defined: the national level of the innovation sphere and the regional level of the innovation sphere. The national level of innovation hub is represented on the basis of the National Intellectual Property Office (hereinafter referred to as the NIPO), the functions of which are carried out by the State Organization «The Ukrainian National Office for Intellectual Property and Innovations» (hereinafter referred to as UANIPIO). Regional innovation hubs are focused on the development of the innovation ecosystem of the region in its specific (priority) field; they specialize in organizing a start-up movement, creating specialized databases for highlighting innovative projects.

The formation of regional innovation hubs should be regarded as the basis of innovative infrastructure. The activity of an innovation hub must be directed at

improving the living conditions of a population. An innovation hub must become a platform for innovative projects acceleration. Support for regions with a low level of the usage of innovation potential has to be provided, establishing a special regime of conducting activity for business entities, which implement the projects in priority types of economic activity of the region, professional development and retraining of scientific personnel, provision of financial assistance through direct state investments in real investment projects. A regional innovation hub will provide an innovator with possibilities to obtain the whole service spectrum at any stage of an innovative process in the frame of one structure at the regional level.

We note that an innovation hub should be interpreted as an innovation system that, in addition to the development of its own innovation projects and innovation infrastructure, provides other organizations with information and consulting services, scientific and technological, infrastructure and production services for solving the problems of technology transfer and commercialization of innovative activity projects. A hub may be regarded as the origin, the starting point of the future network structure - a cluster, and the emergence of a new form of organization of interaction between economic entities of a particular region.

The scientific literature distinguishes between an innovation hub of the micro level (within the boundaries of one enterprise, company or university); an innovation hub of the meso level (within one or two regions or a cluster); a macro-level innovation hub (within the borders of the country, with a single innovation management center aimed at developing innovations in all sectors of the national economy) [3].

An innovation cluster based on an innovation hub should include centers for generating scientific knowledge and business ideas, centers for training highly professional innovators. The activity of such a cluster has to be aimed at working with the perspective innovation markets. Innovative clusters based on innovation hubs must be regarded as promising growth points of the innovative economy, based on the activities of a person-innovator.

Successful examples of the effective operation of innovation hubs can be

observed in different countries of the world. For example, the innovation hub - «Knowledge Hub», created in the United States by the Georgia Institute of Technology, is successfully operating. The first innovation hub in Eastern Europe with a €4 million funding program started working in Poland back in 2014. The project was initiated by the non-profit organization StartUp Hub Poland (SHP) and the Polish National Center for Research and Development (PCR&D) and Giza Polish Ventures (GPV). The purpose of the hub is to engage researchers, inventors, and innovators in innovation activities on a common technology platform, innovators of Central and Eastern European countries, which would strengthen the processes of innovative globalization and innovation of the countries of this region [3]. The Tech Hubs program is a successful one, implemented as part of the CHIPS and Science Act of 2022 (as the Regional Technology and Innovation Hubs program), as a program of regional technology and innovation centers. It has been authorized by the Statute to allocate \$10 billion for the program over five years. As part of the Consolidated Appropriations Act (USA) for their financial year 2023, Congress allocated \$500 million to launch the program. This program invests in regions of the United States which are concentrated on technologies [4].

At the regional level, the creation and development of local innovation hubs require the active participation of regional authorities. The activities of regional authorities on the development of innovation infrastructure should be aimed at building the institutional framework for the formation of innovation potential in the region.

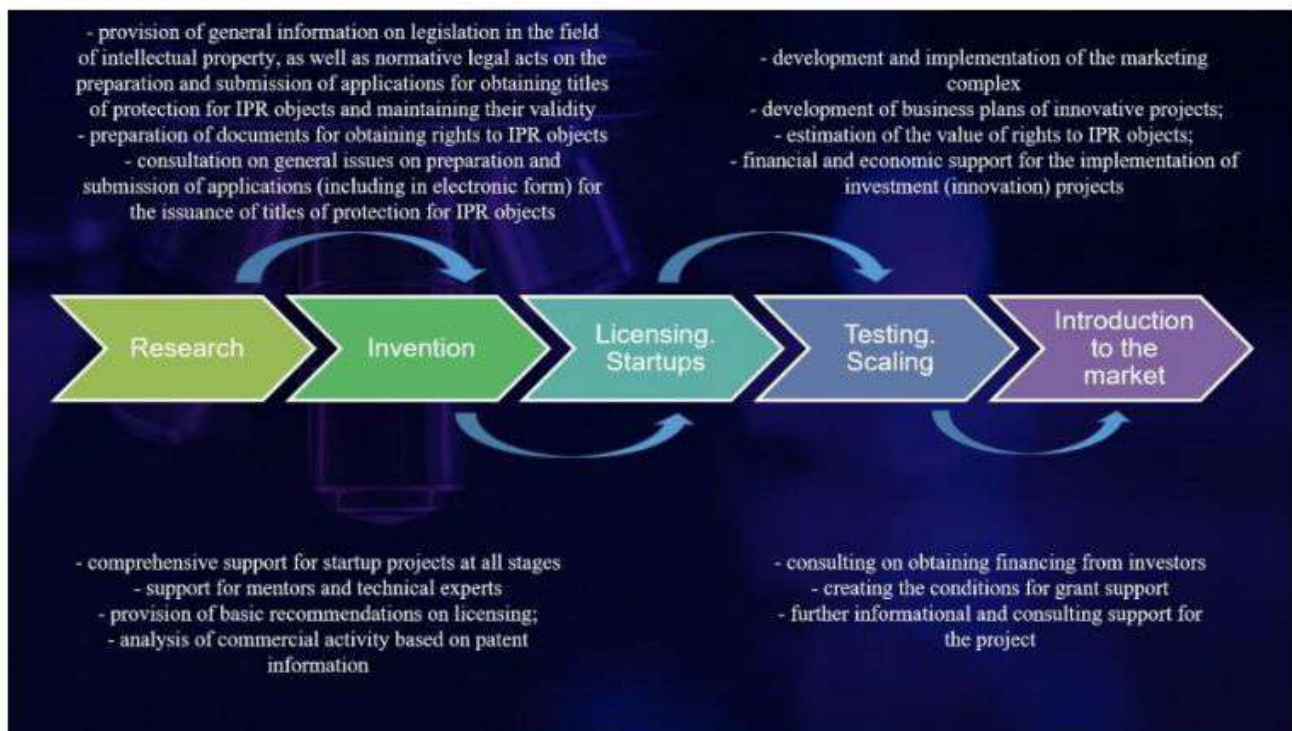
However, there are drawbacks in the formation and development of modern regional innovation infrastructure: haphazard and inconsistent formation and development of regional innovation infrastructure; insufficient normative and legal regulation of the development of the innovation infrastructure of a region; a lack of state and regional support for the creation and development of innovation infrastructure institutions; a low level of funding for all elements of the regional innovation infrastructure; an absence of constantly available systematized information on the completion of the development of the latest technologies in the



regions of the state [5].

Traditionally, a regional innovation hub consists of regional innovation infrastructure elements that are available in the region, each of which provides a separate spectrum of services in the field of innovation and together they provide a full array of services for a researcher, an inventor and an innovator at any stage of the innovation process.

An example of such a distribution of services within a regional hub is depicted in the figure:



**Pic. The illustration shows encouraging hub elements during their transition from one stage to another.**

When transitioning to each subsequent stage, certain elements of the hub are involved, so it is very crucial to determine precisely which innovative structures will be a part of the hub and what array of services each of them will provide.

Moreover, the provision of effective management of a regional innovative hub is a vital aspect. For instance, such functions can be fulfilled by an Innovation Board, which includes representatives of all structural elements of the hub.

Thus, in order to enhance the efficiency of innovation activities and increase

innovation potential, it is worthwhile to unite the main participants of the innovation process at the regional level. The establishment of efficient regional innovation hubs requires an individual approach and clustering (for example, in the defense and healthcare sectors, etc.). Such innovation hubs can be thematic, depending on the region (e.g., innovation hubs in the agricultural industry for agricultural regions of the country or innovation hubs in the metallurgical and coal industry (especially in the post-war recovery of the East of the country) or designed for specific needs of the region. Accomplishing the sustainable development of innovation hubs requires referring to a variety of elements and factors. Regional innovation hubs bring together a variety of public, private and academic partners in collaborative consortia focused on fostering inclusive regional growth.

#### **LITERATURE:**

1. The Resolution of the Cabinet of Ministers of Ukraine dated July 21, 2021, № 750 «On Promoting the Implementation of the Industry 4.0 Technological Approach in Ukraine». URL: <https://zakon.rada.gov.ua/laws/show/750-2021>.
2. The Order of the Cabinet of Ministers of Ukraine dated October 28, 2022 № 943-p «Some Issues of the National Intellectual Property Authority». URL: <https://zakon.rada.gov.ua>.
3. Dubishchev V. P. Innovation hubs as institutions for regional infrastructure development. URL: <http://eprints.kname.edu.ua>.
4. Regional Technology and Innovation Hubs (Tech Hubs). URL: <https://www.eda.gov/funding/programs/regional-technology-and-innovation-hubs>.
5. Uzunuv V. V. Development of innovative infrastructure in the regions of Ukraine. URL: <http://www.dy.nayka.com.ua>.