



MANAGEMENT OF INTELLECTUAL PROPERTY IN HIGH-TECH INDUSTRIAL ENTERPRISES

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ABSTRACT

Currently, innovations are becoming increasingly important in global economic trends, as they largely determine competitive economic development and are new factors of economic growth. The globalization of the industrial production market creates the prerequisites for the development of innovative activity, turning it into a leading factor in the modern market economy and the emergence of a new sphere of economic relations - relations with intellectual property.

Introduction. A special role in innovation activity belongs to knowledge-intensive, high-tech industrial enterprises, which determine modern trends in the scientific and technical process. These enterprises have a set of knowledge, information, material resources, experience in the sector development and production of innovative products. The commercialization of innovations of high-tech enterprises is a complex system, including the promotion of innovations on the market, using various forms of transfer of scientific and technical knowledge and developments: trade in patents and licenses, formation of venture capital firms, import of new equipment and technologies, know-how, franchising, engineering, joint ongoing R&D, etc. In this process, IP objects represent a dominant position, since they are the main connecting link of all presented forms of innovation transfer.

When studying the main economic factors of economic development in different countries of the world, we see that a significant part of GDP growth (up to 80%) in these countries is formed by the innovation sector of the economy. This fact is associated with the introduction of intellectual labor products into economic circulation, bringing the final scientific results to their market implementation. National innovation systems (NIS) of different countries have significant differences in their structure due to the presence of peculiarities of social and economic development of states, the level of resource provision and the ability to realize the existing innovative potential [1].

The input parameters of a high-tech industrial enterprise, which are the basic indicators for analysis, are represented by: R&D costs; resource base; expenses for advanced training of employees; IP objects and the number of intangible assets [2]. It is the use of the resource base by an enterprise that determines its manufacturability: in high-tech enterprises,



intangible assets and IP objects are used to the greatest extent, creating competitive advantages, as well as reducing the return on investment.

Thus, in high-tech enterprises the specificity of the use of intellectual property rights in innovation is most clearly expressed. Factors of technological effectiveness of high-tech industrial enterprises are:

- constancy of organization and implementation of innovative activities;
- the presence of a significant number of IP objects and intangible assets accompanying the activities of the enterprise;
- the presence of unique innovative technologies, innovative reserves, the prevailing quantity of innovative products produced;
- the importance of R&D for all production processes;
- a significant proportion of highly professional workers qualifications and innovative competencies;
- feasibility of innovative projects at the enterprise.

In the production activities of high-tech enterprises, there is a need to develop measures that are aimed at the dynamic development and growth of innovative potential. These measures, reflecting the effectiveness of innovation, are determined by intellectual law, reflecting the scope of application of new equipment, technologies, financial instruments, creative activity of personnel, and the intellectual property management system in innovation. The dynamic development of the innovative activity of a high-tech enterprise is based on an assessment of the existing production potential, i.e., an assessment of the value of the enterprise's assets, taking into account the presence of intellectual assets, as well as financial and property liabilities [3]. This assessment involves identifying opportunities for innovation and calculating the amount of material, financial and intellectual resources required for this.

The formation of IP objects for organizing innovative activities is one of the most important tasks of a high-tech enterprise, since they transform attracted resources into tangible, intangible and financial assets. High-tech industrial enterprises also operate outside their region, additionally using external resources, intra-industry and inter-industry organization of activities, forming new high-tech technologies that are expensive for one enterprise, but feasible in partner projects. These projects significantly reduce transaction costs inherent in enterprises that separately implement innovative projects [4]. In the partnership activities of high-tech industrial enterprises, additional opportunities arise for diversifying products and organizing import substitution.

Innovative activity carried out in high-tech industrial enterprises represents an orderly sequence of implementation of an innovative idea for the formation of an innovation, and from the point of view of its organization, it is the consistent implementation of management decisions to carry out the following stages: generating ideas and scientific research, performing R&D, pilot production, serial production, commercialization, market introduction and diffusion.

Innovative activities in high-tech enterprises should primarily be aimed at:

- generating innovative ideas for the purpose of further development, initiation of innovations and their diffusion into related industries;



- creation of intersectoral structures of innovation activity;
- the formation of centers of excellence that carry out R&D in breakthrough knowledge sectors and have a unique material and technical base, human and intellectual resources;
- production of innovative products for civilian purposes within the framework of high-tech enterprises of the defense industry;
- expansion of production of consumer products;
- development of open innovations.

When organizing innovative processes that ensure the implementation of strategic ideas of an enterprise at the stages of invention or creation of an industrial design, IP ownership forms a stronger position when concluding licensing agreements, alienation of property, and the creation of joint partnership ventures. Protecting IP rights helps avoid potential conflicts. Policy in the field of IP management in the field of innovation of high-tech enterprises includes a set of principles (methods of implementation) of IP management with the definition of the goals and objectives of a high-tech enterprise, on the basis of which innovative products (services, technologies) are formed, developed and introduced to the market. These principles, goals and objectives of the ongoing policy in the field of innovation, mechanisms for its implementation, as well as the target content of innovative products in the long term, are carried out taking into account the world level of technology and competition, the latest trends in the development of science and technology in target markets and are enshrined in internal regulatory documents strategic level of enterprise development [5].

The basic principles of policy in the field of innovative development of high-tech enterprises within the framework of the IP rights management system include:

- IP objects and newly created innovative products (services) based on it, forming the level of operational efficiency and competitiveness of the enterprise;
- application of patenting results to form priority areas for innovative development of an enterprise and concentration of basic, including intellectual, resources in these areas;
- ensuring legal protection and protection of the results of the enterprise's intellectual activity, reflected in innovative products and in the relevant territories;
- accounting for copyrights to the results of intellectual activity as intangible assets to increase the capitalization of the enterprise;
- integration of the innovative potential of the enterprise personnel with the implementation of R&D.

In general, the management of IP objects when carrying out innovative activities is not just a set of rights used or a legal asset, but a serious financial instrument: an IP object can be sold to another business entity, turned into a license, or used as collateral for financing. In addition, IP objects play an important role in the implementation of decisions on the commercialization of innovations and their introduction to the market, increasing market potential and forming stronger competitive positions of the enterprise. To carry out the successful commercialization of an innovation and bring it to the market, such IP objects are important as: marketing technologies, patents, industrial designs, trademarks, etc. Currently, the category "industrial property", which is included in IP as a structural part, has become widespread and expanding the understanding of IP and reflecting the novelty of the product, further directions for the development of this novelty [6].



Industrial property reflects the results of intellectual activity in the scientific, technical field, the field of design, as well as equivalent means of protection and individualization of copyright of legal entities representing ownership rights to manufactured products (works, services). Industrial IP plays a key role in the formation and implementation of innovative activities of an enterprise:

- is a technological, intellectual and legal basis for the development of innovative technologies;
- reflects the monopoly production of innovative products, consisting in the operation of exclusive rights;
- forms the basis of ongoing innovative projects;
- is the subject of alienation agreements and license agreements.

Industrial IP objects represent inventions, utility models, industrial designs, trade names, trademarks and service marks, and commercial designations. Industrial property in its structure, upon presentation, contains the results of human intellectual activity. Its objects are considered as technical solutions in a certain field of activity, and design samples that determine the appearance of an invention or product are stylistic, compositional, structural solutions [7]. At the stage of commercialization of innovations and introduction to the market, registration of their individualization, represented by trademarks and service marks, is required. These signs are functionally divided into two groups: means of individualization of innovative products and means of individualization of owners of innovative products.

In innovation, the effective use of IP rights is a tool for supporting innovation and is a prerequisite for the activities of high-tech enterprises, their development and protection of competitive advantages. Consequently, IP rights management contributes to obtaining and achieving the necessary results of innovation activities. IP objects and the results of intellectual activity serve as the most promising levers for the strategic development of high-tech enterprises. Thus, the results of IP represent an object of management when carrying out innovative activities [8].

The management of IP rights of high-tech enterprises is understood as the scope of management activities aimed at the effective use of property and exclusive rights to IP objects and the resulting relationships between business entities and application in the economic activities of the enterprise. The role of IP objects is also determined by the fact that the fixed assets formed and accumulated at high-tech enterprises, representing production capacities and innovative technologies, are often not considered as the innovative potential of these enterprises, and the main potential is IP.

The importance of IP rights in the innovative activities of high-tech enterprises is presented:

- is one of the main factors in creating innovation;
- serves as the basis for the formation and development of the innovative potential of the enterprise;
- brings significant economic benefits to the copyright holder for the use of IP objects through the development of competitiveness;
- prevents unauthorized access to the intangible assets of the enterprise, is a tool for protection against "piracy" and counterfeit products;



- increases the market value of the enterprise due to intangible assets, thereby increasing investment attractiveness;
- stimulates the intensity of innovation transfer processes;
- provides additional opportunities for obtaining licensing and patent income;
- creates new standards of innovation.

The innovative function of IS is expressed in the fact that its objects are represented as the central link of all innovations and are used in the processes of development and implementation of design innovations. The economic function of IP is implemented in the processes of managing intellectual capital to increase its value and profit growth [9]. The qualitative function of IP is to improve the quality of goods (services) from innovative activities, in the organization of which IP objects are used.

The technological function of IP is to achieve technological superiority of an enterprise over its competitors, providing the owner of the rights to IP objects with an advantage over competitors. The motivating function of IP is to form a corporate culture of an enterprise based on exclusive copyrights to the results of intellectual activity, equality of IP objects and material objects represented in the assets of the enterprise, strengthening the role of intellectual capital and IP in modern economic development [10].

Innovations with technical purposes require:

- organize the protection of IP objects by ensuring their confidentiality or with the help of regulatory legal acts;
- organize the protection of IP objects through copyright protection rights;
- register the rules for providing technical support and the procedure for using the IP object;
- obtain licenses for the right to use IP objects for the purposes of ensuring their patent purity;
- grant third parties the rights to use a specific IP item.

When using trademarks, the following conditions must be met:

- purchase trademarks;
- control the use of the enterprise's trademark;
- exercise control over the actions of a third party to use a certain trademark.

When using programs for electronic computers, you must:

- draw up a set of design and technological documentation for the development and use of an IP object, taking into account the potential need for copyright protection.

When organizing work related to the design or development of innovations, you need to focus on:

- registration of patent applications and registration of rights to IP objects;
- monitoring the activities of partner enterprises or other interested parties in protecting and enforcing rights to IP;
- obtaining licenses for IP rights to create patent purity.

Conclusion. This article forms and expands the principles of IP management in the field of innovation of high-tech enterprises, presents the functions of IP management of high-tech enterprises, and defines the role of IP management in the commercialization of innovations and their introduction to the market. A management system and criteria for identifying IP objects created as a result of innovative activities of industrial enterprises have been developed.



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