Legal Protection of the Results of University Research

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Annotation

This article is dedicated to a review of the system of institutes, which ensure the legal protection of the results of university research. The fundamental forms that scientific achievements take and the structure of scientific activity are determined in accordance with legislation. The possibility of the legal protection of the scientific and scientific-applied results by individual intellectual property right institutes is analyzed. The legal regimes of objects of intellectual property rights, which can be applied for the protection of objects of scientific achievements, were characterized on the basis of an analysis of valid legal acts.

Key words: scientific result, scientific-applied result, intellectual property right, scientific discovery, invention, useful model, industrial prototype, technical proposal, commercial secret, scientific work, selective achievements.

The management of intellectual property, which is created as a result of university research, is directed towards the achievement of the strategic goal of «from idea to value». Through management, the results of scientific research are introduced into the economy, transforming it into innovative production. Four fundamental tasks must be resolved on this course: first of all, the discovery of scientific achievements, worthy of protection, in other words those, which are of a novel and economic value; secondly, the formation of a «package» of results of scientific research in which the market is interested; thirdly, ensuring the legal protection of research results, which anticipates the acquisition of intellectual property rights for them; fourthly, the commercialization of intellectual property objects, which embody the results of scientific research.

The results of university research are the products of research universities, which are to be presented to the market. However, in order for a university to form a «package» of scientific achievements and commercialize them, it is necessary to include these results in the system of objects of civil rights that are objects of civil law that are capable of circulation, and ensure their due legal protection.

The legal principles for conducting scientific activity are determined by the Law of Ukraine «On Scientific and Scientific-Technical Activity»[1]. Having analyzed the regulatory determinations, set forth in the indicated Law, it is possible to distinguish the following structure of scientific activity and forms for the existence of scientific research (Figure 1).

The Law distinguishes two basic types of results of scientific activity: a scientific result and a scientific-applied result, which in turn can be implemented in certain forms.

The Statement on research universities[2], in which an attempt to establish the legal status of this category of domestic universities was developed, determined the execution of fundamental and applied scientific research based on specific priority directions of scientific, scientific-technical and innovative activity, the implementation of innovative projects for the development and production of new highly technological production as the fundamental direction of their activity. Based on the List of Priority Thematic Directions of Scientific Research

[1] The Law of Ukraine «On Scientific and Scientific-Technical Activity» in the wording of Law No. 284-XIV from 1 December 1998 with subsequent changes. According to this Law, scientific activity — is intellectual creative activity, directed towards obtaining and using new knowledge.

[2] Statement on research universities. Approved by Resolution No. 163 of the Cabinet of Ministers of Ukraine, dated 17 February 2010.

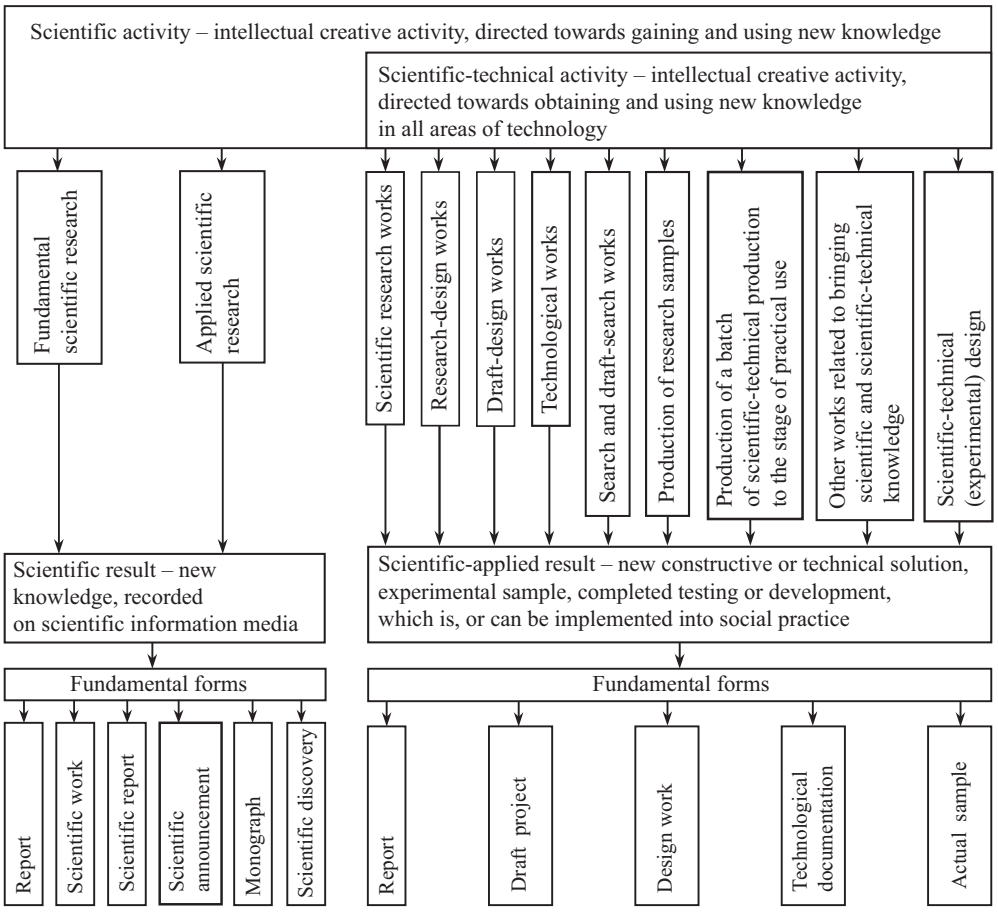

Figure 1. Structure of scientific activity in accordance with the Law of Ukraine «On Scientific-Technical Activity»

and Scientific — Technical Developments for the Period until 2015, approved by Resolution No. 942 of the Cabinet of Ministers of Ukraine of 7 September 2011, both scientific and scientific-technical results can be created within the framework of the activity of research universities.

The legal protection of the results of university research can be ensured via the legal regime of the protection of objects of intellectual property rights (hereinafter — IP). IP rights are objects of civil rights, which can participate in civil (economic) circulation. In connection with the above, it is expedient to pay individual attention to the legal protection means of scientific and scientific-technical results, which are provided for by domestic legislation.

The essence of scientific results[1] can be manifested in a scientific problem, research methods, a scientific fact, systematization, hypothesis, theory, interpretation and scientific experiment. However, it can only be protected by a scientific discovery institute. Currently, the legal regulation of relations in discoveries in Ukraine is largely declarative. According to Article 457 of the Civil Code of Ukraine (hereinafter — the CC of Ukraine), a scientific discovery is the establishment of previously unknown, but objectively existing conformities with the law, specific features and phenomena of the material world, which bring fundamental changes to the level of scientific knowledge.

The substance of IP rights regarding scientific discoveries constitutes a complex of an author's individual non-property rights: the right to the recognition of a person as a creator; the right to obstruct any encroachment of intellectual property rights, capable of causing damage to the honour or reputation of the creator; and the special right to give a name or title to a scientific discovery. Property rights to a scientific discovery, which would determine exclusive legal rights to a specific subject, are not established because of the unique nature of this

[1] The terms «scientific result» and «scientific-technical result» here and hereafter are used as interpreted by the Law of Ukraine «On Scientific-Technical Activity» (see Figure 1).

result of scientific creativity, the scientific discovery deepens the knowledge of the material world and is therefore an achievement of humanity.

The provision of part 2, Article 458 of the CC of Ukraine refers to the law, which should establish the legal regime for the protection of scientific discoveries, however it does not yet exist[1]. Unfortunately, the recognition of a scientific result as a scientific discovery and its registration is not conducted in Ukraine at this time. For the recognition of their achievements, domestic scholars apply to the International Academy of Authors of Scientific Discoveries and Inventions, which operates under the management of the Russian Academy of Natural Sciences. This Academy conducts the registration of discoveries in the area of social and humanitarian sciences, the registration of scientific ideas and scientific hypotheses. Based on an expert opinion, which is conducted by the Academy, a scientific achievement is recognized as being discovered, registered as such and certified with a diploma, which is issued to the author[2]. The Institute of Scientific Discoveries ensures the recognition of authorship, however does not provide the opportunity for the introduction of a scientific result into economic circulation.

The essence of a scientific result can be protected as confidential information, particularly as a commercial secret, as well as being protected by the institute of scientific discoveries. By definition, determined in part 1, Article 505 of the CC of Ukraine, a commercial secret is information, which is secret in the sense that in its entirety or in a certain form and as a collection of its components is unknown and is not easily accessible to persons, who work with the type of information, to which it belongs; in connection with this, it is of commercial value and under existing circumstances was the subject of adequate measures taken by a person, who legally controls this information regarding the protection of its secrecy.

In order for a scientific result to gain the status of a commercial secret and for a university to gain IP rights, it is necessary to conduct a range of measures, particularly:

— determine certain information as its commercial secret and identify it;

— inform people, who have access to a commercial secret, that it is such and to entrust such people with non-disclosure responsibility (on the basis of an agreement or unilateral non-disclosure obligation);

— have internal (local) regulatory documents, which establish the procedure for maintaining commercial secrets (provisions on commercial secrets and instructions on access to information, which is a commercial secret, etc.).

To maintain the confidentiality of information, which is a commercial secret, as a rule, it's necessary to apply not only legal, but also organizational (restricted access regime) and technical protection means.

Having conducted the indicated measures, the university gains the following IP rights:

a) the right to use a commercial secret;

b) the exclusive right to allow the use of a commercial secret;

c) the exclusive right to prevent the illegal disclosure, gathering or use of a commercial secret[3].

Forms for the implementation of a scientific result can be protected by copyright. The Law of Ukraine «On Copyright and Allied Rights»[4] (Article 8) considers scientific works as objects of legal protection, however stipulates that legal protection only extends to the form of the expression of the work and is not extended to any ideas, theories, principles, methods, procedures, processes, systems, means, concepts and discoveries, even if they are expressed, described, explained and illustrated in the work.

Copyright emerges from the moment of the creation of a piece of work, however, for its accounting in the structure of non-material assets and introduction into economic circulation, it is necessary to conduct state registration, which emerges from the Procedure for the application of model forms for the primary accounting of intellectual property rights objects in the structure of non-material assets[5]. Such state registration is conducted by the State Intellectual Property Service of Ukraine, according to the Procedure, approved by Resolution No. 1756 of the Cabinet of Ministers of Ukraine, dated 27.12.2001.

[1] In connection with the absence of a regulatory and legal act of Ukraine, which would establish the procedure for protection and the payment of a reward for the creation of a scientific discovery, in accordance with Resolution No. 1545-XII «On the Procedure for the Temporary Action of Individual Acts of the Legislation of the USSR on the Territory of Ukraine» of the Verkhovna Rada (Parliament) of Ukraine, dated 12 September 1991, the Instruction on the procedure for the payment of a reward for discoveries, inventions and technical proposals, approved by the Head of the State Committee of the Council of Ministers of the USSR in Cases of Inventions and Discoveries dated 15 January 1974, is formally valid in the part pertaining to scientific discoveries, however the Instruction cannot be applied because of a complete change in the state system for the protection of intellectual property.

[2] The Russian Academy of Natural Sciences: The registration of scientific discoveries / The registration procedure (http://www. raen.info/activities/reg_o/document170..shtml).

[3] Actions regarding the disclosure, collection or use of information that is a commercial secret, without the permission of the IP rights holder are only deemed legal in cases provided for by the law.

[4] The Law of Ukraine «On Copyright and Allied Rights» in the wording of Law of Ukraine No. 2627-III dated 11 July 2001.

[5] Approved by Order No. 732 of the Ministry of Finance of Ukraine dated 22.11.2004, registered at the Ministry of Justice of Ukraine on 14 December 2004 under No. 1580/10179.

Copyright, with the exception of the personal non-property rights of the author, includes the following property legal rights:

a) the right to use a work;

b) the exclusive right to allow the use of the work;

c) the exclusive right to prevent the illegal use of a work, including the banning of such use.

The legal protection of scientific-applied results, created at research universities, can be ensured by a number of institutes of intellectual property rights (Figure 2).

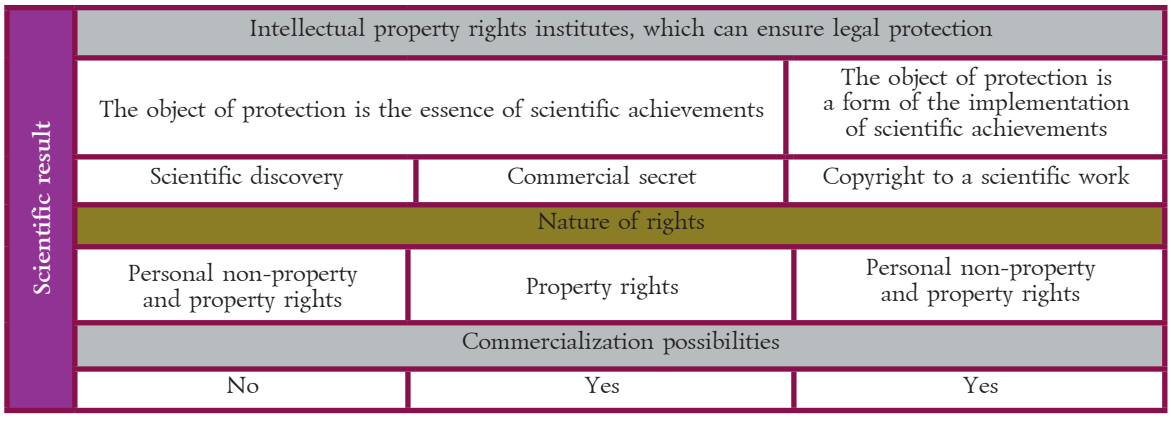

Figura 2. Legal protection of scientific results

Thus computer programmes[1] and databases[2] are protected by copyright. A scientific-applied result in the form of a report, draft, design or technological documentation for scientific-technical production and a natural sample is considered a written literary work of a scientific nature, which is also protected by copyright.

In addition, the essence of the characteristics of scientific-applied results can be protected as inventions (useful models), technical proposals, topographies of integral micro schemes, industrial prototypes, selective achievements, also as a commercial secret.

Thus, a decision in the sphere of technology, embodied in a product (device, substance, stamp, microorganism, cell culture of a plant and animal, etc.); process (method), and even the new application of a well-known product or process, are protected by the institute of intellectual property rights to an invention and useful model.

A scientific-applied result can only obtain legal protection as an invention on condition that it is new, is of an innovative level and is industrially applicable. An invention is recognized as being new, if it is not a part of a technological level, moreover the technological level comprises all information, which has become generally acceptable in the world prior to the date of the submission of the application for a patent. An invention is of an innovative level, if it is not obvious to a specialist, in other words, it does not clearly emerge from the technological level. An invention is industrially suitable if it can be used in industrial or another sphere of activity.

A useful model is protected on condition of its novelty and industrial suitability. At the same time, discoveries, scientific theories and mathematical methods are not recognized as inventions (useful models); methods of intellectual, economic, organizational and commercial activity (planning, financing, supply, accounting, crediting, prediction, regulation, etc.); rules for the execution of physical exercise, conducting games, competitions and auctions; designs and schemes for planning structures, buildings and territories; symbols (road signs, routes, codes, print, etc.), schedules, instructions; computer programmes; forms for the submission of information (for example, in the form of a table, diagram or graph, with the aid of acoustic

[1] A computer programme — a set of instructions in the form of words, numbers, codes, schemes, symbols or in any other form, expressed in a form that is suitable for reading by a computer, which put it into action in order to achieve a specific goal or result (this interpretation covers both the operating system and the applied programme, expressed in a final form or in target codes) (Article 1 of the Law of Ukraine «On Copyright and Allied Rights»).

[2] Database (a compilation of data) — a collection of works and data or any other independent information in any form, including — electronic, the selection and location of components of which and its regulation is the result of creative work, and the components of which are individually accessible and can be found with the aid of a special search system on the basis of electronic means (computer) or other means (Article 1 of the Law of Ukraine «On Copyright and Allied Rights»).

signals, the pronouncing of words, visual demonstrations, books, audio and video disks)[1].

If a scientific-applied result is the result of artistic design, it can be protected by an industrial-type institute, but can also be viewed as design work, decorative-applied art or fine art and be an object that is subject to copyright.

The purpose of an industrial prototype as an IP rights object is the solution of the task of creating aesthetic and ergonomic «forms» of production. In contrast to an invention or a useful model, an industrial prototype does not resolve the technical improvement of production task. Instead, it forms its aesthetic and ergonomic qualities. An industrial prototype can be the artistic-design solution of an external view, production as a whole or part thereof, manifesting itself in the form of production, picture or ornament, painting or a combination thereof.

A requirement, under which an artistic-design solution can gain the protection of an industrial prototype institute, is its novelty[2](part 1, article 461 of the CC of Ukraine). An industrial prototype is recognized as being new, if the collection of its essential signs has not become generally accessible in the world prior to the submission of an application for a patent.

For the emergence of the IP rights of an invention, useful model or industrial prototype, the state registration of this right (patent registration) determines its legality by the State Intellectual Property Service of Ukraine, which is accompanied by the issue of a protective document — a patent, which verifies the priority, authorship and intellectual property right to the relevant object. In the case of obtaining a patent, the creator of an invention (useful model) or industrial prototype has personal non-property intellectual property rights, while the patent-holder has the material part of IP rights to the invention or useful model, which is the only complex of mutually related legal property rights:

a) the right to use the object;

b) the exclusive right to permit object use;

c) the exclusive right to prevent the illegal use of an object, including the prohibition of such use.

If a scientific-applied result is a composition (topography) of an integral micro scheme (hereinafter — IMS), the legal protection of such object is conducted in accordance with Chapter 40 of the CC of Ukraine and the Law of Ukraine «On the Protection of the Rights to the Topography of Integral Micro Schemes». IMS topography — the dimensional-geometric placement of the complex of elements of an integral micro scheme, set forth on a material medium and combinations thereof (Article 1 of the Law).

A condition, under which IP rights are obtained for IMS composition, is the originality of this object. To obtain the right, it is necessary to register the topography, which is conducted by means of submitting an application according to the set form to the State Intellectual Property Service of Ukraine. On the results of an expert opinion of the application, this body takes a decision on the registration or refusal to register the IMS topography. Registration is ground for the obtaining of IP rights to IMS topography, which is verified by a certificate.

The substance of IP rights to IMS composition are the personal non-property rights of the IP creator, as well as the property IP rights of the certificate-holder, are similar to those mentioned above regarding inventions, useful models and industrial prototypes.

Scientific-applied research can be concluded by the formulation of a proposition regarding the establishment or change in the construction of the product, regarding the composition of the material for the improvement of production technology. In this case, the result obtained can be protected as a technical proposal. IP rights to a technical proposal are established by Chapter 41 of the CC of Ukraine, where a proposal, containing technological (technical) or organizational solution in any sphere of its activity, is recognized as a technical proposal by a legal entity (part 1, Article 481). A legislator determines two subjects of IP rights to a technical proposal — the author and the legal entity, to whom this proposal is submitted. The procedure for the actions of the indicated subjects for obtaining IP rights is determined in the Temporary Provision on the Legal Protection of Industrial Property Objects and Technical Proposals in Ukraine[3] (hereinafter — Temporary Provision), according to which, the legal entity that has accepted an application for a technical proposal for review, should register it, and make a decision regarding it within a month of the registration date. After a decision has been made on the recognition of the proposal as being a technical one, the author must be issued a certificate for the technical proposal, which confirms the recognition of the proposal as a

[1] Rules for compiling and submitting applications for an invention and applications for a useful model are approved by Order No. 22 of the Ministry of Education and Sciences of Ukraine dated 22 January 2001. Registered at the Ministry of Justice of Ukraine on 27 February 2001 under No. 173/5364.

[2] Draft Law of Ukraine No. 7205 «On the Introduction of Changes to Some Legislative Acts on Intellectual Property Issues» proposes one more condition for the patentability of industrial prototypes — originality. The draft law determines an industrial prototype as original, if the overall impression it makes on an informed user, differs from the overall impression made on such user by any other industrial prototype that has been made public.

[3] Temporary Provision on the Legal Protection of Industrial Property Objects and Technical Proposals in Ukraine, approved by Decree No. 479/92 of the President of Ukraine, dated 18.09.1992. The indicated Provision remains valid in the part pertaining to technical proposals.

technical one, the submission date and authorship of the technical proposal (clause 35).

In addition to personal non-property IP rights, the author has property rights to good-will encouragement from the legal entity to which the proposal was submitted. The issue of a reward is regulated in the Temporary Provision however this does not deprive the author and the legal entity of the possibility to regulate the amount and procedure for the payment of the reward on a good-will basis. The legal entity that has recognized the proposal to be a technical one has the right to use this proposal in any scope.

The institute of technical proposals protects the decisions, designated for internal use by the business entity that recognized this object, but not for introduction into circulation by means of transfer, since the IP rights for technical proposals are of a local nature.

Some research universities, conducting research in the sphere of plant cultivation and cattle breeding, can receive results, which are selective achievements — plant variety and breed of animal. IP rights to a variety of plant and breed of animal is set forth in Chapter 42 of the CC of Ukraine, the provisions of which are developed in the Law of Ukraine «On the Protection of Rights to Plant Varieties». At the same time, the provisions of Chapter 42 regarding breeds of animals cannot be applied today, since there is no legal mechanism for their implementation. The Law of Ukraine «On the Pedigree Issue in Cattle Breeding» is currently valid, according to the norms of which, the breed of animal (selective achievements in the area of pedigree cattle breeding) can be considered an invention (Article 25).

According to the standards of the CC of Ukraine three groups of IP rights are recognized for selective achievements: personal non-property IP rights, certified by state registration; property IP rights, certified by a patent; property IP right for the dissemination of selective achievements, certified by state registration.

Intellectual property rights can be granted for a clone, line, first generation hybrid and population (variety of sorts) on condition that if under the manifestation of signs, generated by a certain genotype or a certain combination of genotypes, the sort is new, different, homogenous and stable (Article 11 of the Law of Ukraine «On the Protection of Rights to Plant Varieties»).

A university can obtain IP rights to varieties as a result of taking a number of formal actions: it is necessary to submit an application to the State Veterinary and Phytosanitary Service of Ukraine, after which an examination of the sort is conducted, the responsibility for the conducting of which is entrusted to the Ukrainian Institute for Plant Variety Examination. The state registration of rights to plant varieties is conducted, based on the results of the examination. These registrations are necessary grounds for the emergence of IP property rights (Figure 3).

Having ensured the legal protection of the results of scientific activity and having gained intellectual property rights, the university can begin the process of the commercialization of the results of scientific research in three directions: contractual (licensing, the transfer of property rights), institutional (the establishment of a legal entity) and informational (advertising).

Scientific-applied result								
Intellectual property rights institutes, which can ensure legal protection								
The object of protection is the essence of scientific achievements							The object of protection is a form of the implementation of scientific achievements	
Invention	Useful model	Industrial prototype	Technical proposal	Topography of integral micro-schemes	Selective achievements	Commercial secret	Copyright to a scientific work	
Nature of rights								
Personal non-property and property rights						Property rights	Personal non-property and property rights	
Commercialization possibilities								
Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	

Figure 3. Legal protection of scientific-applied results