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THE METHOD OF TECHNOLOGY EVALUATION BASED ON IMPROVED COST APPROACH

An original method for evaluating title to intellectual property based on improved cost approach has been presented. An example of application to a specific task of evaluating a technology for manufacture of dual-use products has been given.

Keywords: technology evaluation, approaches to evaluation, evaluation methods, improved cost approach methodology, brand factor, and expert opinion.

According to the applicable legislation, technology is a result of R&D activities, a set of systematic scientific knowledge, technical, organizational and other decisions on list, period, order and sequence of operations, production process and/or sale and storage of goods or services [1]. A component of technology is a part of technology that shows some elements of technology in the form of scientific and applied results, intellectual property rights objects (IP) and know-how [1]. The object of technology is theoretical and applied results, intellectual property rights (including patents, utility models, works of scientific, technical nature, computer software, trade secrets), know-how, which show the list timing, order and sequence of operations, production process and / or sale and storage of products and services [1].

The current legislation [1] requires the state expert evaluation of technology when concluding the contracts on the technology transfer. Its purpose is to determine the economic feasibility and benefit for the state and the society from the introduction of technologies and their components taking into account the potential environmental and socio-economic consequences of their use. The important conditions when concluding the technology transfer contracts are in particular, a list of component technologies transferred (with the defined functional properties and guarantee performance); cost of technologies or fees for their use; size, order and conditions of remuneration for the use of technologies, as well as type of payment (one-time payments — lump sum payments; periodic payments — royalties or other payments). During the state expert evaluation of the technologies and their components it is necessary to determine the estimated market price of the technology and equipment or fees for their use.

THE CURRENT METHODOLOGY OF TECHNOLOGY EVALUATION

As mentioned, the technology consists of a series of intellectual property objects, therefore, the technology cost is actually the value of certain intellectual property that belongs to it.

Therefore, evaluation of technology itself is an estimate of individual objects of intellectual property rights.

How much does the result of R&D activities cost? In the opinion of specialists in the sphere of the USA technology transfer [2], the technology costs as much as it was paid for, no more and no less, emphasizing that there is no standard universal method for calculating the price of result of R&D activities. A holder of R&D achievements, as a monopolist in the market, can offer his products at any price acceptable to him. However, in the reality, the actual cost of R&D achievements will be affected by various factors that determine its market, but not a monopoly price. These factors combine into the stage of technology development, its technical and commercial value, the level of legal protection, scope of rights transferred, payment terms, etc. Among the factors that determine the value of intellectual property in [3] one can identify the following (Table 1).

The choice of approaches to the assessment of intellectual property value is very important; it should be quite reasonable and prudent as to a specific purpose of such an assessment, specific differences of estimated object, with the advantages and disadvantages of different approaches and inherent assessment methods taken into account. First of all, it is necessary to define the aim of assessment and kind of cost which will be determined in a particular case. [4] The evaluation is carried out using a base corresponding to the market or non-market value type. The choice of appraisal base is prior to the property evaluation contract.

The choice of appraisal base depends on the purpose for which the property, its features, as well as regulatory requirements, are estimated [5].

Table 1

Factors Defining the Cost of Intellectual Property Object

Legal	Cost-based	Profit
Protection document validity. Protection document reliability. Measure of rights transmitted.	Costs for legal protection of object. Costs for rights registration and support of security documents in force. Marketing and advertising costs. Costs for risk insurance associated with an intellectual property object. Probable costs for conflicts settlement. Tax on the transactions associated with the use of intellectual property object. Inflation factor.	Expected license payments. Expected effect from the use of intellectual property objects.

Table 2

Approaches to the Assessment

Cost-based approach	Comparative approach	Profit approach
Method of primary costs Method of replacement cost Method of reproduction cost	Sales comparison method	Royalty method Monetary flow discounting method Direct capitalization method Participatory rapid assessment

It is necessary to determine the market value of property in the case where the regulations for property evaluation, the contract for the evaluation of property or the court decision do not specify the kind of cost as a result of the evaluation.

The use of market value as the basis for assessment under contract for the evaluation of property is a possible subject to the compliance of the contract, in connection with which the evaluation is carried out, with the concept of market value. The conditions of this agreement shall not include any additional restrictions or requirements affecting the future economic benefits from the use by the purchaser of the appraisal object.

Thus, the most appropriate kind of intellectual property cost is fair (market) value [4]. When choosing a method of evaluation, the appraiser should be guided by the following main criteria [4]:

- **Trustworthiness:** the evaluation methods should be trustworthy and reliable from a practical and theoretical point of view;
- **Objectivity:** the appraiser should use only objective quantitative and qualitative information;
- **Versatility:** reliability of estimate improves, if you use the standard approaches for companies, industries and types of intangible assets;
- **Criterion of material costs:** the benefits arising from the evaluation shall be sufficient to justify the evaluation efforts;
- **Sequence:** the methods used should be consistent from year to year and, thus, facilitate the evaluation process;
- **Reliability:** the evaluation should be reliable, so that other evaluators will be able to reproduce the evaluation process, using similar approaches;
- **Adequacy (compliance):** the approaches to the evaluation and methods chosen should meet the needs of the user;
- **Practicality:** the methods and parameters used in the evaluation should be clear and simple enough to be used in practice.

Table 3

Comparative Characteristics of Approaches to the Evaluation of Intellectual Property Objects

Name of approach	What does the cost of IPO mean?	Benefits	Drawbacks	Where can this method be preferable?
Cost-based	Expenses for creation of intellectual property object, equivalent in value and utility.	Suitable for any type of intellectual property object, as well as in absence of information on the purchase-sales, similar in value and utility.	Requires a large number of expert assessments. Cannot be used for evaluation of costs for such intellectual objects as a mark for goods and services, determining the place of origin of goods, etc.	Used usually as an additional way to adjust the data received in any other way, as well as in cases when it is impossible to determine the cost of intellectual property object in a different way.
Comparative	The most probable price of OIP in the relevant segment of market, similar in value and purpose.	The most adequate OIP, similar in value and utility (if information on the purchase-sales is available).	Can be used for the cost assessment of mass OIP relative to which there is a variety of market statistics.	Used always if there is enough information on the purchase-sales of OIP, similar in value and utility.
Income	Profit (income) from the use of OIP.	Can be used for any types of OIP that will make a profit.	Provides for the use of forecast data which can be obtained only by an expert.	Used always if you can get data on the profit from using the objects of intellectual property (OIP).

Table 4

Priority of Using Approaches to Evaluation of Objects of Intellectual Property Rights (IPOR) and Intangible Assets (IA)

Types of IPO and IA	Пріоритетність застосування підходів		
	In the first place	In the second place	Hardly probable
Patents and technologies	Profit	Comparative	Cost-based
Trade marks	«	«	«
Objects of copyright	«	«	«
Software and data support	Cost-based	«	Profit
Software product	Profit	«	Cost-based
Distribution network	Cost-based	Profit	Comparative
Deposits	Profit	Comparative	Cost-based
Franchising rights	«	«	«
Corporate practices and procedures	Cost-based	Profit	Comparative

According to the international evaluation standards [6] and the National Standard number 1 [5] in determining a value of the property of created and existing corporations there are three basic approaches: cost, income, comparative, each having its own methods [4, 7, 8]. The list is presented in Table 2.

Each of these approaches has its positive and negative features (Table 3). Choice of approach and method depends both on the purpose and object of assessment.

Smith [9] proposed the following priority of using approaches to evaluation of individual objects of intellectual property rights (Table 4).

The methodology of assessing such a complex object as a technology is to assess a value of rights to the certain objects that are part of the technology, by means of cost, comparative and income approaches. The total value of these rights to the individual objects will make the cost of the rights to the technology. Let's consider the application of these approaches regarding the evaluation of technology.

REVIEW OF APPROACHES TO EVALUATION

Profit approach. The basis for the profit approach is the principle of expectation, which provides that the value of ownership is defined by a sum of the current (given prior to the evaluation date) value of future benefits that it provides to its owner. The future benefit from using technology is the future flow of net profit created directly by this technology. They should be treated as cash flow generated from the use of technology.

Determination of evaluation technology using the income approach should be based on the results of its current use. Only with this formulation of the estimate one can talk about its uniqueness. None of corporate assets can by itself create the regular cash flow. The technology estimated as of the date of evaluation shall form, together with other corporation assets, a single economic organism that generates net cash flows. Only under such conditions one can assert the existence of fair value, which is determined by the profit approach.

Traditionally, a real economic effect arising from the use of intellectual property objects is allocated by the procedure of comparing the mode parameters of its use in economic activity of corporations. However, the comparison should be used in time and space. The comparison in time is in the comparison of indicators (results of activities) of corporation that uses a specified technology, achieved by corporation after the first start-up with the corresponding figures recorded in the

period preceding the introduction of technology which is assessed.

Comparison in space is in the comparison of indicators (results of activities) achieved by the corporation that uses the result of intellectual activity or an intangible asset, which is assessed, with corresponding figures of counterparts (those working in this area, producing similar products, characterized by close in size, basic parameters, etc.). One can also use the comparison with the industry average statistical indicators.

The above conditions create difficulties for the evaluation of technology with the identification of real economic benefits, because it is precisely the technology definition provides for the innovation and, therefore, identification of companies that use similar technology is unlikely.

In addition to the above procedures for determining the real economic effect, an appraiser can also artificially identify the economic benefits. These are method of «exemption from royalty» and the method of identification of licenser's shares in the licensee's profit. These methods are based on the general original assumptions of what would have happened if the results of intellectual activity were not owned by its present owner. The methods used within the income approach have been covered in the publications relating to the evaluation, in general, and objects of intellectual property rights (IPO), in particular.

Comparative approach. The essence of comparative approach is in comparing the recent sales prices of similar objects. To apply this approach, it is necessary to have a significant amount of input data (prices and/or market multipliers in respect of identical or similar objects of intellectual property). This approach gives the so-called «fair price», the price at which a seller, who has information regarding the market value of such objects in the market, is ready to sell and the buyer, which also has the same information, is ready to buy a specified IPO. So, the price is set by market and suits both a seller and a buyer.

This approach is convenient to use, for instance, for real estate, while regarding IPO it has significant limitations. This is because, as already noted, the definition provides the innovative technology development. Also it is necessary to take into account the overall underdevelopment of intellectual property market in Ukraine and natural efforts of owners of intellectual property to preserve commercial secrets as to their innovations. Fully compliant use can be provided for the buyer only for an object of intellectual property right with similar features. However, the innovative products, as a rule, have no analogues, therefore, it is very difficult to find the similar objects in order to reliably estimate IPO of innovative direction. Besides, such information is, as a rule, confidential. Even if the sale can be identified and information about the contract price is affordable it seems problematic to determine the relevant coefficients of adjustment to the price or valuation multipliers to show difference between the object of comparison and the object which is assessed [10], since it is difficult to find an object-analogue for the comparison. Thus, the use of comparative approach to the evaluation of technology seems to be quite problematic.

The cost approach. The general methodology of the cost approach depends on the documentation presented by a customer of documentation assessment that confirms the costs for creation of technology. The appraiser can choose the most appropriate procedure for a particular situation:

- If the customer of evaluation has the documented cost estimate, the appraiser can apply the method of primary costs or reproduction cost method;
- If the cost estimate is missing, it can be built by the appraiser himself within the framework of using the method of substitution.

Unlike the income approach, under which a possible profit from commercialization of proprietary rights for the intellectual property is evaluated on the assumption of the future income, the cost approach is based on the actual costs for the creation of the evaluation object. This increases the accuracy and reliability of the

calculations since they are based on the actual costs certified by the documentary proof. However, this method has limited use for the objects of intellectual property, because such assessment does not take into account the scientific, technical and commercial importance, which can be identified using this intangible asset in the commercial projects.

IMPROVED COST APPROACH METHODOLOGY

If the intellectual property is not used for the commercial purposes, the evaluation in terms of the cost approach may be the most objective. In the paper [11] consideration and justification are being given to the opportunity to increase the value of technology within the cost approach obtained by the standard procedure of cost approach, with the value of brand-factor and degree of the commercial importance of technology taken into account.

Detailed consideration of this approach shows that, according to the algorithm of creating the innovative technological developments in the US [12], the work begins with the choice on a competitive basis of private company being the main executor of the contract. The contract, along with the usual cost estimate specific to the national practice of implementation of state orders, provides, if necessary, special buildings, structures, the necessary scientific equipment and test stands, creation of a scientific team consisting of scientific experts of the highest qualification, including the foreign experts, etc.

In fact, the scientific and industrial organization with a scientific capacity to perform the innovative project is created within a short time. Obviously, in this case, the total cost of creating the innovative technology can be represented as a sum of costs spent directly for the creation of technology and the costs for creating the intellectual potential capable to solve all R&D problems.

Taking into account the fact that the technology is the result of R&D activities, which is able to be a technological basis of practice in the civilian or military sphere, there is a large variety of characteristics and features that may affect the commercial viability of the technology and, correspondingly, the cost of its property rights.

Let's note some of them which are general in nature: purpose (military, civil or dual); novelty and R&D importance; volumes and market segment; competition; risks; benefits for the society; return on investment; legal protection; type of rights transfer, etc. For the system analysis it is expedient to unite the given characteristics and build a tree hierarchy [11].

The introduction of cost accounting procedure to create the intellectual potential through the cost of brand-factor has been suggested. The brand-factor, according to [13], is treated as an integral asset — a part of value of the intellectual potential of scientific institution. The improved methodology, in addition to the standard estimation algorithm by way of the cost approach measures a quantitative impact of factors on the value of technology property rights by the expert evaluation method, in other words, the standard evaluation procedure is supplemented with a stage, resulting in the calculation of numerical values of integral factors: K_s is the importance of technology, K_B is developer's brand-factor.

Thus, from a mathematical point of view, we have a typical multifactorial problem that is difficult to be formalized under conditions of uncertainty, which in general terms can be represented as

$$C_T = C_T(\rho_1, \rho_2, ..., \rho_n),$$

where C_T is the cost of the technology rights and $\rho_1, \rho_2, ..., \rho_n$ are parameters that affect the value of technology.

With this approach, it is impossible to determine the effect of each option on the value of technology rights. Therefore, for quantifying the influence of parameters, the integrated indicators K_s (the importance of technology), and K_B (developer's brand factor) were introduced. These integral factors are defined in [13] on the basis of ranking and general tables concerning the definition of the technology ownership.

Table 5

Summarized Table of General Commercial Significance of Technologies

Name of criterion/indicator	Characteristics of criterion/indicator	Scores
1. *Level of scientific novelty K1*		Degree/level
High	Made for the first time in the world	7—10
Relatively high	Made for the first time in Ukraine	4—6
Not high enough	Novelty at the industry level	1—3
2. *Level of legal protection K2:*		Legal protection
High	Foreign and Ukrainian patents and objects of author`s right; no-how	7—10
Relatively high	Ukrainian patents and objects of author`s right; know-how	4—6
Not high enough	Objects of author`s rights; know-how	1—3
3. *R&D importance K3:*		Effect on science and technology development
High	Essential effect on the further development of science and technology	7—10
Relatively high	Significant effect on the further development of science and technology	4—6
Not high enough	Minor effect on the further development of science and technology	1—3
4. *Stage of readiness K4:*		Readiness
High	The entire scope of documentation for the organization of production output. Finished products availability.	7—10
Relatively high	Design documents, pilot specimen.	4—6
Not high enough	Technical plan of pilot technology	1—3
5. *Actuality and importance of solving the social problems: security, social, economic and environmental factors K5:*		Conformity to the needs of society
High	Be of paramount importance	7—10
Relatively high	Be of great importance	4—6
Not high enough	Has some value	1—3
6. *Evaluation of level of the expected economic effect from the introduction K6:*		Commercial use
High	Wide introduction in Ukraine with significant effect and access to the international market	7—10
Relatively high	Introduction in Ukraine with significant effect	4—6
Not high enough	Limited introduction in one branch without determining the effect	1—3
Brand-factor of the developer		

Continuation

Name of criterion/indicator	Characteristics of criterion/indicator	Scores
7. *Status of the developer K 7:*		Degree of brand impact on the quality of technology
High	Be of paramount importance. Institution of NAS, (SPD, DRI)	7—10
Relatively high	Be of great importance. Branch RI, SPD	4—6
Not high enough	Has some value. Departmental RI, SPD	1—3
8. *Qualification of developer K 8*:		
High	Institution of NAS, (SPD, DRI)	7—10
Relatively high	Branch RI, SPD	4—6
Not high enough	Departmental RI, SPD	1—3
9. *Popularity in the market of high technology products*		
High		7—10
Relatively high		4—6
Not high enough		1—3

Table 6

Expert opinion on the production technology

Criteria, indicators	Overall estimate in scores by all experts				
	Experts			Total	Average score
	1	...	9		
1. R&D and commercial factor					
1.1. Level of scientific novelty K1					
1.2. Level of legal protection K2					
1.3. R&D importance K3					
1.4. Phase of readiness K4					
1.5. Actuality and importance K5					
1.6. Evaluation of level of the expected effect from the introduction K6					
2. Brand-factor of the developer					
2.7. Status of the developer K7					
2.8. Qualification of the developer K8					
2.9. Popularity in the market of high-tech products K9					
Total					

This approach is based on the proposed methodology of valuation of technical solutions in monograph [14] with account of scientific significance of inventions by way of building the so-called general definitional tables. In paper [13] for the transition from qualitative to quantitative indicators a special scale and approach [15], developed in [16], are used. The idea is to build a

fragment questionnaire for the experts, aimed at measuring the latent variable in the table, the rows of which correspond to the variables to be studied (criteria), and the value of these variables correspond to columns. Each of these criteria has its own variable to be studied. A value of latent feature, being the commercial significance of the technology, is the result of aggregating the expert answers to certain questions, in other words, the summation of variables to be under consideration. Scores corresponding to the answers are added. The number obtained can be interpreted as the result of «measuring» the total commercial value, in opinion of a specific expert. However, a larger total score corresponds to the higher importance. The following table [13], which summarizes all these indicators (Table 5) is given below. The experts determine the weight of criteria. The summary table (Table 6) is a result of their work.

Calculation for the technology rights value on the basis of the improved cost approach is performed in the following ratios:

$$C_T = C_S \times K_{Зи} \times K_Б,$$

$$C_S = K_c \times \sum_{t=1}^{n} C_t \left\{ K^t_{Iи} \times K^{Hc}_t \right\} K_р,$$

where C_S is the total value of all actual cost incurred with connection of creating the technology prior to the current situation; C_t is annual total cost in t (can be) i-th year of calculation period; K_C is moral ageing factor defined as of the date of appraisal.

The final coefficient is calculated in case when a term of technology rights transfer is proportional to the term of exclusive rights for the object which has a patent or other document that determines the exclusive property right for the objects which are part of the technology.

The calculated dependence of integral coefficient of technology importance and brand-factor are used in the power presentation:

$$K_{Зи} = A^N, K_Б = B^M.$$

Table 7

Calculation of Planned Self-Cost of R&D Products at Corporation 1

Name of expenditure item	Expenditures
Materials	855 000
Special equipment for scientific experimental works	600 000
Expenses for the remuneration of employees directly engaged in the creation of scientific and technology products	2 185 700
Deductions for the social needs	830 500
Other direct expenses	—
Incidental expenses 90 per cent	2 714 580
Expenses for the works performed by the outside organizations and corporations	100 000
Total	7 285 280

Table 8

Calculation of Planned Self-Cost of R&D Products at Corporation 2

Name of expenditures item	Expenditures
Materials	855 000
Special equipment for scientific experimental works	600 000
Expenses for the remuneration of employees directly engaged in the creation of R&D products	2 367 652
Deductions for the social needs	710 295
Other direct expenses	—
Incidental expenses 100 per cent	3 077 947
Expenses for the works performed by the outside organizations and corporations	100 000
Total	7 710 894

Values A and B are calculated in the paper [13] and correspondingly amount to 1.027 and 1.037, M and N are maximum allowable values which can be received from the expert table when summing the coefficients.

The increase factor which can maximize the primary costs and, correspondingly, the value by 15 times is actually introduced into the standard formula for the calculation of the technology value with a help of the cost approach.

EXAMPLE OF PRACTICAL USE OF THE IMPROVED COST APPROACH

The suggested methods were tested when assessing a certain technology which was an innovative development and was used for the manufacture of dual-use products which made it impossible to identify a real economic effect and to use the methods of income approach.

It stands to reason that it was also incorrect to use the comparative approach. The data on the expenditures, reported by the corporation-developer of technology, have been used (Corporation 1) (Table 7).

Table 9

Calculation of Planned Self-Cost of R&D Products at the R&D Phase, Corporation 2

Name of expenditures item	Expenditures
Materials	513 000
Special equipment for scientific experimental works	360 000
Expenses for the remuneration of employees directly engaged in the creation of R&D products	727 958
Deductions for the social needs	218 387.4
Incidental expenses 100 per cent	946 345.4
Expenses for the works performed by the other outside organizations and corporations	100 000
Total	2 865 690.8

Table 10

Calculation of Planned Self-Cost of R&D Products at the Design Phase, Corporation 2

Name of expenditures item	Expenditures
Materials	342 000
Special equipment for scientific experimental works	2400 00
Expenses for the remuneration of employees directly engaged in the creation of R&D products	1 557 465
Deductions for the social needs	467 239.5
Incidental expenses 100 per cent	2 097 459
Expenses for the works performed by the outside organizations and corporations	
Total	4 631 409

Table 11

Expert Evaluation of the Technology

Criteria and indicators № of expert	Total estimate in scores by all experts				
	Experts			Total	Averagescore
	1	2	3		
1. R&D and commercial factor					
1.1. Level of scientific novelty K1	5	6	3	14	4.66
1.2. Level of legal protection K2	5	6	4	15	5
1.3. R&D importance K3	5	5	4	14	4.66
1.4.Phase of readiness K4	10	9	10	29	9.67
1.5.Actuality and importance K5	5	5	6	16	5.33
1.6.Evaluation of level of the expected economic effect from implementation K6	5	6	6	17	5.66
2. Brand-factor of the developer					
2.7. Status of the developer K7	5	3	3	11	—
2.8. Qualification of the developer K8	5	6	6	17	—
2.9. Information in the market of high technology products K9	5	5	4	14	—
Total					34.98

Thus, the cost of development of technology at the Corporation 1 by the replacement cost method accounts for USD 7285.28 thousand. Obviously, this figure does not reflect the real cost of technology, since the cost estimate includes only the planned self-cost of development and does not include a marginal profit of the developer, in other words, a real cost should be increased by the value of corporation's cost effectiveness, and it is a lower boundary below which the value cannot descend.

Now let's present the calculation of cost of technology development provided the technology has been developed at the same corporation where it is now being implemented (Corporation 2). Alongside the data on the salaries and other indicators Table 8 shows the self-cost of technology creation at Corporation 2.

Thus, without taking into account the corporation cost-efficiency the planned cost-price of works on the creation of technology at Corporation 2 should account for USD 7710.894 thousand.

Now, for the calculation of property rights cost for technology, let's use the improved cost approach [13].

According to the methodology of the improved cost-based approach, the costs of R&D and design works are calculated separately before the cost estimate and phases of research works. The planned calculation of expenses at the design phase is given in Table 10. Leading experts in the relevant branch who estimated the technology importance were involved in the activity. The consolidated results of their work are given in Table 11.

Since the experts established the brand-factor of Corporation 1, where the technology was developed, not that of Corporation 2, where the implementation of technology had been planned, therefore the evaluators deemed that it would make sense to disregard this indicator and to keep count only taking into account the R&D and commercial factor within the methodology of improved cost-based approach.

Thus, the technology importance factor accounts for:

$$K_{Зн} = A^N = 1.027^{34,98} \approx 2.5394.$$

The patent for the utility model, validity of which as of the date of evaluation was made up 6 years, was obtained on the territory of Ukraine, therefore the evaluators considered advisable to take into account a coefficient of moral ageing calculated by a formula:

$$K_C = 1 - \frac{T_Ф}{T_H},$$

where $T_Ф$ is actual validity of title of protection as of the date of evaluation, T_H is nominal validity of the title of protection. Thus,

$$K_C = 1 - \frac{4}{10} = 0.6.$$

In such a situation, the cost of right to use the technology, with the improved cost approach taken into account, makes up:

$$2865690.8 \times 2.5394 \times 0.6 + 4631409 = \\ = \text{USD } 8997690.1$$

Thus, the cost of the assessed technology has amounted from USD 7285.28 to USD 8997.69 thousand.

CONCLUSION

The suggested methodology of the cost approach made it possible to increase the cost of high-tech products of dual use by 24 percent, what is more, a brand-factor of the developer was disregarded in the calculations, and R&D and commercial factors had average values. This methodology can be useful for the preliminary evaluation of economic effect from the R&D commercialization.

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ЩОДО ОДНОГО МЕТОДУ ОЦІНКИ ТЕХНОЛОГІЙ НА ОСНОВІ ВДОСКОНАЛЕНОГО ВИТРАТНОГО ПІДХОДУ

В роботі представлено оригінальний метод оцінки майнових прав на об'єкт права інтелектуальної власності — технологію, що базується на вдосконаленому витратному підході. Наведено приклад застосування методу до конкретної задачі оцінювання, а саме технології виробництва продукції подвійного призначення.

Ключові слова: оцінка технології, підходи до оцінки, методи оцінки, методологія вдосконаленого витратного підходу, бренд-фактор, експертний висновок.

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ОБ ОДНОМ МЕТОДЕ ОЦЕНКИ ТЕХНОЛОГИЙ НА ОСНОВЕ УСОВЕРШЕНСТВОВАННОГО ЗАТРАТНОГО ПОДХОДА

В работе представлен оригинальный метод оценки имущественных прав на объект права интеллектуальной собственности — технологию, основаную на усовершенствованном затратном подходе. Приведен пример применения этого метода для конкретной задачи оценивания, к технологии производства продукции двойного назначения.

Ключевые слова: оценка технологии, подходы к оценке, методы оценки, методология усовершенствованного затратного подхода, бренд-фактор, экспертное заключение.