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GLOBAL MARKET OF INTELLIGENT INVESTMENTS: EXPERIENCE FOR UKRAINE

YURCHUK Natalia,
Candidate of Economic Sciences, Associate Professor of the Department of Computer Science and Economic Cybernetics

KIPORENKO Svitlana,
Assistant of the Department of Computer Science and Economic Cybernetics,
Vinnytsia National Agrarian University (Vinnytsia)

The article deals with the meaning of the concept of «intellectual investment». It was found that this economic category is quite diverse and most foreign and domestic scientists give only a general definition. Based on the studied approaches to understanding the essence of intellectual investment, the authors provide their own interpretation of this economic category. So, intellectual investment is any investment in intangible assets: training and retraining, research and development, transfer of know-how, creation of innovative products for additional economic benefits. A number of features that distinguish investments in intellectual capital from other types of investments are identified and attention is paid to approaches to the classification of types of intellectual investments.

It is established that the leading countries in the implementation of intellectual investment in 2020 are China, the United States, Japan, Britain, Germany, and the trend of increasing the share of spending on innovation is observed in such regions as Asia and the Middle East, respectively. The place of the countries in the ranking of the Global Innovation Index, which is headed by Switzerland, Sweden and the United States, followed by Great Britain and the Netherlands, is described.

The level of development of intellectual investments in Ukraine in terms of financing of innovation activities during 2016-2020, as well as in terms of receipt of applications for industrial property in Ukraine and the world is analyzed. The main negative factors that hinder the development of intellectual investment in Ukraine are assessed, and on the basis of world experience the effects that can be obtained as a result of investing in intellectual capital at different economic levels are highlighted. Due to the fact that Ukraine is losing its authority and attractiveness in the field of invention in the international arena, it is proposed to create a clear program to attract investment in intellectual capital, increase the share of budget funds for development and implementation of innovations, introduce programs to encourage the return of scientists. who previously emigrated.

Key words: investments, innovations, innovative activity, intellectual capital, intellectual investments, intellectual property, effects.

Table.: 4. Fig.: 2. Ref.: 20.

СВІТОВИЙ РИНОК ІНТЕЛЕКТУАЛЬНИХ ІНВЕСТИЦІЙ: ДОСВІД ДЛЯ УКРАЇНИ

ЮРЧУК Н.П.,
кандидат економічних наук, доцент кафедри
комп'ютерних наук та економічної кібернетики

КІПОРЕНКО С.С.,
асистент кафедри комп'ютерних наук
та економічної кібернетики,
Вінницький національний аграрний університет
(м. Вінниця)

У статті розкрито зміст поняття «інтелектуальні інвестиції». З'ясовано, що досліджувана економічна категорія є досить різнобічною, а більшість зарубіжних та вітчизняних учених дають лише загальне її визначення. Виходячи із проаналізованих підходів до розуміння сутності інтелектуальних інвестицій, подано власне трактування розглянутої економічної категорії. Зроблено висновки, що інтелектуальні інвестиції – будь-які вкладення в нематеріальні активи: підготовку і підвищення кваліфікації персоналу, наукові розробки, передачу ноу-хау, створення інноваційних продуктів для отримання додаткових економічних вигод. Визначено ряд особливостей, які відрізняють інвестиції в інтелектуальний капітал від інших видів інвестицій та приділено увагу підходам до класифікації видів інтелектуальних інвестицій.

Встановлено, що країнами-лідерами у здійсненні інтелектуальних інвестицій у 2020 році є Китай, США, Японія, Великобританія, Німеччина, а тенденція до зростання частки витрат на інновації прослідковується у таких регіонах світу, як Азія та Близький Схід відповідно. Охарактеризовано місце країн світу у рейтингу Глобального індексу інновацій, який очолюють Швейцарія, Швеція, США, Великобританія і Нідерланди.

Проаналізовано рівень розвитку інтелектуальних інвестицій в Україні у розрізі фінансування інноваційної діяльності протягом 2016-2020 рр., а також у розрізі надходження заявок на об'єкти промислової власності в Україні та світі. Надано оцінку основним негативним факторам, які гальмують розвиток інтелектуальних інвестицій в Україні. На основі світового досвіду виокремлено ефекти, що можуть бути отримані у результаті інвестування в інтелектуальний капітал на різних економічних рівнях. У зв'язку з тим, що Україна втрачає свій авторитет та привабливість у винахідницькій галузі на міжнародній арені, запропоновано створити чітку програму залучення інвестицій в інтелектуальний капітал, збільшити частку бюджетних коштів, спрямованих на розробку та впровадження інновацій, запровадити програми щодо стимулювання повернення науковців, які раніше емігрували, в Україну.

Ключові слова: інвестиції, інновації, інноваційна діяльність, інтелектуальний капітал, інтелектуальні інвестиції, інтелектуальна власність, ефекти.

Табл.: 4. Рис.: 2. Літ.: 20.

МИРОВОЙ РЫНОК ИНТЕЛЛЕКТУАЛЬНЫХ ИНВЕСТИЦИЙ: ОПЫТ ДЛЯ УКРАИНЫ

ЮРЧУК Н.П.,
кандидат экономических наук, доцент кафедры
компьютерных наук и экономической кибернетики

КИПОРЕНКО С.С.,
ассистент кафедры компьютерных наук и экономической кибернетики,
Винницкий национальный аграрный университет (г. Винница)

В статье раскрыто содержание понятия «интеллектуальные инвестиции». Выяснено, что исследуемая экономическая категория является достаточно разносторонней, а большинство зарубежных и отечественных ученых дают лишь общее ее определение. Исходя из исследованных подходов к пониманию сущности интеллектуальных инвестиций, предоставлено собственную трактовку рассматриваемой экономической категории. Сделаны выводы, что интеллектуальные инвестиции – это любые вложения в нематериальные активы: подготовку и повышение квалификации персонала, научные разработки, передачу ноу-хау, создание инновационных продуктов для получения дополнительных экономических выгод. Определен ряд особенностей, которые отличают инвестиции в интеллектуальный капитал от других видов инвестиций и уделено внимание подходам к классификации видов интеллектуальных инвестиций.

Установлено, что странами-лидерами в осуществлении интеллектуальных инвестиций в 2020 году является Китай, США, Япония, Великобритания, Германия, а тенденции к росту доли расходов на инновации прослеживается в таких регионах мира, как Азия и Ближний Восток соответственно. Охарактеризовано место стран мира в рейтинге Глобального индекса инноваций, который возглавляют Швейцария, Швеция и США, далее следуют Великобритания и Нидерланды.

Проанализирован уровень развития интеллектуальных инвестиций в Украину в разрезе финансирования инновационной деятельности в течение 2016-2020 гг., а также в разрезе поступления заявок на объекты промышленной собственности в Украине и мире. Дана оценка основным негативным факторам, которые тормозят развитие интеллектуальных инвестиций в Украине, и на основе мирового опыта выделены эффекты, которые могут быть получены в результате инвестирования в интеллектуальный капитал на различных экономических уровнях. В связи с тем, что Украина теряет свой авторитет и привлекательность в изобретательской отрасли на международной арене, предложено создать в стране четкую программу привлечения инвестиций в интеллектуальный капитал, увеличить долю бюджетных средств, направленных на разработку и внедрение инноваций, ввести программы по стимулированию возвращения ученых, которые ранее эмигрировали.

Ключевые слова: инвестиции, инновации, инновационная деятельность, интеллектуальный капитал, интеллектуальные инвестиции, интеллектуальная собственность, эффекты.

Табл.: 4. Рис.: 2. Лит.: 20.

Formulation of the problem. Currently, no one doubts that investment is essential for the development of the economy of any country. Ukraine, gives the extremely difficult modern political and economic factors, as well as the continuing lag in technological terms from the world's leading countries – investment for our country is extremely necessary. In the absence of foreign investment, the issue of attracting domestic investment becomes especially important.

The traditional resources for achieving competitive advantages in the industrial age were capital, natural resources and labor, while in the modern knowledge-based economy, information, innovation, intellectual capital and intellectual property are very important [1, p. 10]. The economy of the state development, economic entities

and organizations is systematically dependent on many factors [2, p. 72].

Now, in the period of technical progress, innovation and digital technologies, the issue of investment in the results of intellectual activity is extremely important. Innovations that improve the efficiency of management and production processes, and, ultimately, product quality, that a breakthrough in technical and economic direction are associated.

Investment in intellectual property or intellectual investment at the present stage of development of the world economy is one of the most promising areas of economic development. In order to successfully solve the outlined tasks, an appropriate legal framework must be created that will regulate legal relations in the field of investment in intellectual property. At the same time, the legislation should, encourage potential investors to invest their capital in these activities, guarantee its inviolability and profit, and ensure the transparency of all stages of investment activity. Country must protect its interests by not allowing or restricting the admission not only of foreign but also domestic investors in areas where the investment activities of any persons other than the state itself may cause irreparable damage to defense, the economy or others spheres of country life. Clearly, such forced restrictions must be transparent, understandable to investors and not contribute to the emergence of a corruption component in the decision to admit investors to a particular activity.

Intellectual investments become a source of future income, high efficiency and have a significant economic effect. This explains the feasibility and necessity of investing in intellectual capital as the most valuable asset in terms of expanding the intellectualization of production and labor, increasing the speed of modernization and the formation of the information society.

Analysis of recent research and publications. The study of issues concerning the essence and main aspects of innovation and investment support for economic development are reflected in the works of famous scientists: Kaletnik G.M., Kolomiets T.V. [1], Honcharuk I.V. [2], Kavetsky V.V. [9], Yurchuk N.P. [19], Vovk V.Yu. [19-20], Topina R.P. [19] and others. The theory of human capital and intellectual investment were engaged in by domestic scientists who made a significant contribution to the development of these categories, namely: Karpenko A.V. [3], Ostropolskaya E.V., Ashitkova Y.V., Cherenkova V.E., Goptar J.P. [5], Yarmak O.V. [6], Marchenko N.V. [7], Goryachova N.V. [8], Kushnir N.O. [18] and others.

Despite the important scientific substantiation of the problem of intellectual investment in innovation of the world, the issues of theoretical and methodological and practical approaches to improving and expanding the implementation of intellectual investment in Ukraine, taking into account the experience of developed countries.

Formulation the goals of the article. The purpose of the article is to substantiate the theoretical aspects of intellectual investment, to study their development in the languages of the national and world economy.

Presentation of the main research material. The development of economic systems of developed countries proves that innovation processes play a crucial role in

their economic growth. Stable economic growth, increase in gross domestic product is possible only on an innovative basis with the active use of modern scientific and technical achievements, the ability to innovate. The main factor in the development of innovation is a stable political environment, socio-economic, informational, technical condition and other factors, in particular, the use of labor resources that are able to perform both intellectual and physical work as efficiently as possible. This requires updating and maximum dissemination of theoretical knowledge and practical skills on innovation in the domestic environment, which in the future will be a crucial condition for sustainable development of Ukraine's economy through understanding and optimal adaptation of domestic businesses to the changing economic situation [3, p. 60].

To intensify innovation, it is necessary to attract investment in the intellectual potential of society. According to the Law of Ukraine «On Investment Activity», investments are all types of property and intellectual values invested in objects of entrepreneurial and other activities, as a result of which profit (income) is created and / or social and ecological effect is achieved [4].

Because of its economic nature, intellectual capital is the main resource of economic entities and the national economy, which is ready to perceive and innovate, it is directly involved in the processes of investment, reinvestment and disinvestment in various sectors of the economy. Thus, investments play one of the main roles in the formation of the intellectual industry, the development of new industries [5, p. 14].

Intellectual investment is directly related to innovation, which is aimed at producing and implementing in various spheres of society intellectual products – innovations. First, investment intellectual goods in which innovators invest are intellectual resources of innovation. Second, investing in the creation of investment intellectual goods is an intellectual investment in innovation, because the intellectual product-innovation is the embodiment of innovative knowledge. In the innovation process, an intellectual product can take such forms as: innovative idea, innovation, invention (utility model), experimental design, industrial design, experimental example of innovative products, serial innovative products [6, p. 134-135].

The concept of intellectual investment is a relatively new category for economics. Intellectual investment has not been the subject of comprehensive research yet. There is no single approach to determining their content. Intellectual investments are usually either considered in the context of research on intellectual capital and investment in it, or defined, based on a legal approach, as investments in intellectual property.

Thus, patent engineer Marchenko N.V. notes that intellectual investment is one of the main factors that determines the economic development of the state and enterprise, improving production efficiency, bringing to market new products that can satisfy the consumer [7, p. 173]. Intellectual investment, according to the author, is an investment through which the company can make a profit and take a leading position in the world market, investing enterprise resources, both labor and material in intellectual property, ie an innovative product [8, p. 61-62].

Ostropolskaya E.V., Ashitkova Y.V., Cherenkova V.E., Goptar Ya.P. define the concept of intellectual investment as the transformation of available capital of the

business entity, including intellectual, in various intellectual property for the implementation of its statutory activities, taking into account risk factors, liquidity and time [5, p. 15].

O.B. Yarmak interprets intellectual investment as an investment in knowledge, which is the content of an intellectual product (service) that takes various forms, including intellectual property, is commercialized and is an intellectual investment product (service), the object of the investment resources market [6, p. 134].

The most successful, to our opinion, is the definition of intellectual investment Kavetsky V.V., who characterizes in his works Investments in intellectual capital as tangible (fixed assets, finance) and intangible (recognition, attention, information) investments that are aimed at improving knowledge , experience, to improve skills, improve employee motivation, increase organizational capacity, to develop communication channels of the organization, etc. However, the main direction of investment is investment in knowledge [9, p. 80].

These definitions only partially characterize the essence of the concept of intellectual investment, namely, focus on the benefits derived from investing. Therefore, we present the author's own vision of the definition of this category: intellectual investment – any investment in intangible assets: training and retraining, research and development, transfer of know-how, the creation of innovative products for additional economic benefits.

Intellectual investments are made in the form of:

– acquisition of information services through specialists – scientists, specialists who can conduct consultation, examination, give further recommendation;

– acquisition of exclusive rights to intellectual investment – purchase of a license for intellectual property: invention, utility model, industrial design;

– purchase of scientific and technical products – i.e. design documentation for the product;

– investing in human capital development – the cost of education [7, p. 175].

Since intellectual investment is one of the types of investment, they have common properties. However, investments in intellectual capital have a number of features that distinguish them from other types of investments:

1. The return on investment in intellectual capital directly depends on the length of the working period of its carrier. The earlier you invest in a person, the faster the return.

2. Intellectual capital is not only subject to physical and moral deterioration, but also able to accumulate and multiply.

3. As the accumulation of intellectual capital, its profitability increases to a certain limit, limited by the upper limit of active working age, and then decreases sharply.

4. Not all investments in people can be recognized as investments in intellectual capital, but only those that are socially feasible and cost-effective.

5. In comparison with investments in other various forms of capital, investments in intellectual capital are the most profitable both from the point of view of one person and from the point of view of the whole society.

All intellectual investments can be made in the form of purchase of information

services through specialists-scientists, specialists who can carry out consultation, examination, give further recommendation; acquisition of exclusive rights to intellectual investment – purchase of a license for intellectual property: invention, utility model, industrial design; purchase of scientific and technical products – i.e. design documentation for the product; investing in human capital development – the cost of education. That is why, when an entrepreneur buys patents, licenses for inventions, utility models and other objects of industrial property, pays for intellectual services (scientific and technical, consulting, educational), buys programs, methods, etc., he buys investment intellectual goods, the use of which in production or innovation activities will provide income in the future. Thus, the costs of the entrepreneur for investment intellectual goods are intellectual investments [8, p. 134].

Intellectual investments affect the level of research potential. In general, the scientific and technical factor is one of the most important in the development of the modern economy, the competitiveness of goods and services in the international market is determined to a greater extent by the scientific and technical potential of the country.

Today, the most developed countries in the world use this potential as an effective catalyst for economic development: with the latest equipment or highly qualified personnel, it is possible to produce products competitive on the world market, even with limited natural or human resources.

Financing of intellectual investments, as well as any other kind, can be carried out at the expense of three sources: by means of the state means; with the help of enterprise funds; and with the help of sponsorship [8, p. 63].

In recent years, there has been an increase in investment in intellectual resources (human resources) around the world, which is the main feature of the intellectual economy. According to analytical data from the World Bank, almost 2/3 of the world's wealth is concentrated in intellectual capital. A significant part is the knowledge and intellectual capabilities of the staff of the new intellectual economy. There was a reorientation of the economies of countries such as Austria, France, Norway, Canada, Germany and others, to the production and use of modern knowledge, intellectual potential.

Thus, intellectual capital provides more than 50.0% growth in the national wealth of these countries and determines the formation and development of the intellectual economy. One of the main external factors in the effective formation, development and management of intellectual capital is the level of providing the country with high-speed international communications. Iceland, Sweden, Norway and the United States rank first in terms of computerization (44.6; 40.4; 36.2 and 21.0%, respectively). It is established that one of the main features of the intellectual economy is the increase in the share of intellectual services related to the provision of information. Today they make up 2/3 of the total volume of services [5, p. 16].

In 2020, among the countries of the world that invest in the development of higher education, as well as a large number of applications for inventions, utility models and brands are: China, USA, Japan, UK, Germany.

The World Intellectual Property Organization (WIPO), which specializes in the

protection of intellectual property and unites 191 countries, assists in the implementation and discovery of innovative inventions. During the period 2010-2020, the number of submitted applications in the world increased, as follows: inventions – by 72.3% of applications from 1,930,000 to 3,326,300 applications; trademark – by 159.9% of applications from 5,511,200 to 14,321,800 applications; industrial design – by 61.1% of applications from 814,800 to 1,312,600 applications [10].

The experience of developed countries shows that the main factor in the development of innovation is a stable political environment, socio-economic, informational, technical and other factors, in particular, the use of labor resources that can perform both intellectual and physical work most efficiently. An important indicator that characterizes the external influence of factors that affect innovation is the cost of innovation, because it characterizes not only the use of production potential, but also the demand for competitive products to improve the economic condition of the enterprise and the country [8, p. 76].

Analyzing the data in Table 1, there is a tendency to increase the share of total global spending on innovation during the study years in countries and regions such as Asia, 41.8% in 2016 and 42.3% in 2020; China – 20.4% and 22.3% in 2016 and 2020, respectively; the Middle East – from 2.3% of spending in 2016 to 2.8% of spending in 2020. In some European and African countries, North America, the USA, South America there is a slight fluctuation of the share of global spending on innovation in the range of 21.5%, 1.1%, 28.5%, 26.5% and 2.6%, respectively. Regarding Ukraine, compared to other countries and regions, the share of total global spending on innovation over a long period remains low and does not reach even 1% (0.48% in 2016, 0.45% in 2020), which is a much lower figure, even compared to the same figure in Africa.

Table 1

The share of total global spending on innovation in the regions of the world for 2016-2020

Region / country	The cost of innovation,%					Deviation 2020 to 2016, +/-
	2016	2017	2018	2019	2020	
North America	28.40	28.70	28.60	28.60	28.50	0.10
USA	26.40	26.50	26.60	26.50	26.50	0.10
Asia	41.80	41.90	42.00	42.20	42.30	0.50
China	20.40	21.10	21.60	22.00	22.30	1.90
Europe	21.00	20.80	21.10	21.40	21.50	0.50
South America	2.60	2.50	2.70	2.70	2.60	0.00
Middle East	2.30	2.40	2.60	2.80	2.80	0.50
Africa	1.10	1.10	1.00	1.00	1.10	0.00
Ukraine	0.48	0.45	0.44	0.45	0.45	-0.03

Source: summarized by the authors on the basis of [11]

According to the report of the World Intellectual Property Organization, in 2020 the leading country in the Global Innovation Index was Switzerland – 66.08 points, which remains the undisputed leader in this ranking for 9 years. Also in the top five countries with a high level of innovation development are constantly European countries, because there is a significant percentage of highly qualified specialists, there is cooperation between universities and research structures, as well

as a large number of applications for inventions. The policy of European countries is aimed at basic and applied research and contributes to the formation and development of knowledge [10]. In the Table 2 presents 10 main leaders according to the Global Innovation Index in 2014, 2018 and 2020.

Table 2

Ranking of countries in the world according to the Global Innovation Index in 2016-2020

№	Global Innovation Index				
	2016	2017	2018	2019	2020
1	Switzerland	Switzerland	Switzerland	Switzerland	Switzerland
2	Sweden	Sweden	Netherlands	Sweden	Sweden
3	United Kingdom	Netherlands	Sweden	USA	USA
4	USA	USA	United Kingdom	Netherlands	United Kingdom
5	Finland	United Kingdom	Singapore	United Kingdom	Netherlands
6	Singapore	Denmark	USA	Finland	Denmark
7	Ireland	Singapore	Finland	Denmark	Finland
8	Denmark	Finland	Denmark	Singapore	Singapore
9	Netherlands	Germany	Germany	Germany	Germany
10	Germany	Ireland	Ireland	Israel	Republic of Korea

Source: formed by the authors on the basis of data [10; 12; 13]

Switzerland, Sweden and the USA lead the innovation ranking; followed by Great Britain and the Netherlands. This year, in addition to Singapore, another Asian country, the Republic of Korea, entered the top ten for the first time. Almost all the countries with the best results in the Global Innovation Index still belong to the group of high-income countries the only exception is China, which for the second year in a row holds 14-th place in this ranking and remains the only middle-income country among the top 30 countries in the ranking [10]. At the same time, Poland took 38th place, Russia – 47, Moldova – 59, Kazakhstan – 77, Belarus – 64. Of the countries of the former Soviet Union, the best indicator – in Estonia, which took 25-th place.

In Ukraine intellectual investment is developing, but not in the same way as in developed countries. In 2020, Ukraine rose by 2 positions in the ranking and took 45-th place, ahead of Romania (46th place). And in the group of countries with below-average incomes, Ukraine took 2-nd place, behind Vietnam.

The development of intellectual investment in Ukraine directly depends on politics. Despite the reforms in the field of intellectual property, the adopted regulations of valuation, the introduction of innovations in economic activity is not widespread and currently the problem remains unresolved. The first steps on the way to the world level in this field have already been made, legislative acts define the main methods and approaches to the assessment of intellectual property.

The main strategic priorities of innovation and technology transfer activities are the following:

1. Development of new technologies of energy transportation, introduction of energy-efficient, resource-saving technologies, development of alternative energy sources.

2. Development of new technologies for high-tech development of the transport system, rocket and space industry, aircraft and shipbuilding, armaments and military equipment.

3. Development of new technologies for the production of materials, their processing and connection, the creation of the industry of nanomaterials and nanotechnologies.

4. Technological renewal and development of agro-industrial complex.

5. Introduction of new technologies and equipment for quality medical care, treatment, pharmaceuticals.

6. Widespread use of technologies for cleaner production and environmental protection.

7. Development of modern information, communication technologies, robotics [14].

According to the main managers, in 2019 budget expenditures were carried out according to all strategic priorities. The total amount of budget funding for strategic priorities of innovation and technology transfer activities in 2019 amounted to 265789,55 thousand UAH or 97.4% (in 2018 – 94.9%) in the total amount of budget funding for innovation and 91.2% compared to 2018, of which, as in 2018 and 2017, the largest amount of funding (155764,73 thousand UAH or 58.6%) is directed to strategic priority 4 «Technological renewal and development of the agro-industrial complex», the smallest (5674,65 thousand UAH or 2.1%) – for priority 5 «Introduction of new technologies and equipment for quality medical care, treatment, pharmaceuticals» (Table 3, Fig. 1).

Table 3

Budget financing of innovation and technology transfer by strategic priority areas in Ukraine in 2016-2020, thousand UAH

Priority areas of innovation	In total, years					Deviation 2020 to 2016, +/-
	2016	2017	2018	2019	2020	
1. Development of new technologies of energy transportation, introduction of energy-efficient, resource-saving technologies, development of alternative energy sources	20101,96	15212,73	17094,31	5329,30	4072,34	5410,13
2. Development of new technologies for high-tech development of the transport system, rocket and space industry, aircraft and shipbuilding, armaments and military equipment	6274,01	11710,93	18729,10	351,80	3372,30	-143,51
3. Development of new technologies for the production of materials, their processing and connection, the creation of the industry of nanomaterials and nanotechnologies	16345,33	35979,56	45315,30	2341,20	4931,77	3915,3
4. Technological renewal and development of agro-industrial complex	115563,30	151412,50	153444,23	153868,80	181005,03	4352,23
5. Introduction of new technologies and equipment for quality medical care, treatment, pharmaceuticals	5023,95	4871,42	5356,06	889,40	0,20	803,23
6. Widespread use of technologies for cleaner production and environmental protection	23687,27	29182,88	32213,93	10912,04	3986,90	-10267,12
7. Development of modern information, communication technologies, robotics	7562,39	10759,69	19299,91	7312,80	1919,24	2589,58
Total priorities	194558,20	259129,71	291452,84	181005,35	199287,78	6659,84

Source: calculated by the authors on the basis of [14]

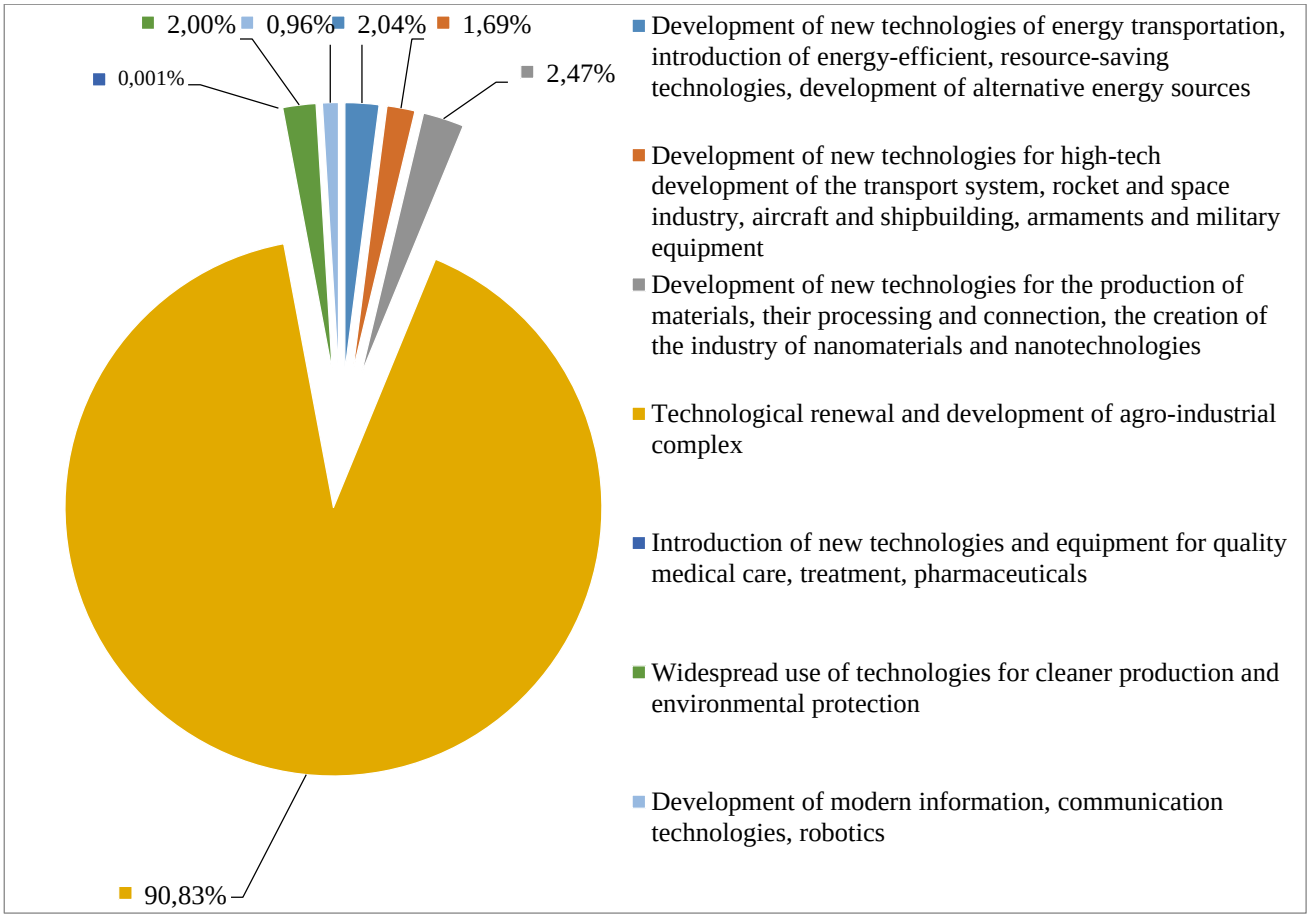

Fig. 1. **Distribution of costs for innovation activities by strategic priorities in Ukraine in 2020, %**

Source: constructed by the authors according to [14]

As we can see, the total budget funding for innovation and technology transfer in strategic priority areas in 2019 was much less than in 2018. The main problem of innovative development in Ukraine is the insufficient funding of education and science, as well as the reduction of logistics of educational institutions, low wages, reducing the number of qualified professionals, forcing them to migrate abroad. All this leads to a decrease in the country's innovation potential. Therefore, it is first necessary to improve the system of financing education and science. Assessing the indicators of the index of technological development, which characterize the compliance with the requirements of the intellectual economy, the current economic condition of Ukraine does not meet the needs or potential of a country with an intellectual economy. But it is necessary to determine the means of realization of the priority direction of Ukraine's development as a modern state – the formation of an intellectual economy.

An important indicator that characterizes the level of development of intellectual investment is the number of applications and patents for inventions, utility models, marks for goods and services, industrial designs and more. The latest statistics of the World Intellectual Property Organization showed that in 2019, 3,224,200 patents were filed in the world (3,325,400 patents in 2018), 2,341,180

applications for utility models (2,146,600 applications for utility models in 2018)), a maximum of 15,153,700 applications for trademarks (14,314,000 applications for trademarks in 2018), 1,360,900 applications for industrial designs (1,343,800 applications for industrial designs in 2018). Ukraine took far from the first place in the international dimension, receiving 3,180 patents, while in China they were registered 1,400,661, in the United States – 621,453, in Japan – 307,969, the Republic of Korea – 218,975; EU – 181,479. Together, these five regions accounted for 84.7% of applications worldwide [15].

Among the five leading regions of the world, the growth of applications was recorded by the Republic of Korea (+ 4.3%), the EU (+ 4.1%) and the United States (+ 4.1%), while in China (- 9.2%) and Japan (-1.8%) there was a decline. The number of applications in China decreased for the first time in 24 years due to a 10.8% drop in resident applications against the background of a general change in legislation aimed at optimizing application structures and improving the quality of applications [15].

Let's analyze the receipt of applications for industrial property in Ukraine during 2014-2019 (Table 4).

Table 4

Receipt of applications for industrial property in Ukraine for 2016-2020

Industrial property	2016	2017	2018	2019	2020	Deviation 2020 to 2016, +/-
Inventions	4093	4047	3968	3852	3180	-913
Useful models	9559	9117	9120	8459	5284	-4275
Industrial designs	2302	2480	3042	2678	2026	-276
Signs for goods and services	35605	37817	38651	42194	35539	-66
Total	51559	53461	54781	57183	46029	-5530

Source: [16; 17]

Based on the data in Table 4, we note that in 2020, 3,180 thousand applications for inventions, 5,284 thousand – for utility models, more than 2.0 thousand – for industrial designs, more than 35.5 thousand – for marks for goods and services. In 2016-2020, the number of applications for inventions had a declining dynamics, as well as the dynamics of applications for industrial designs; the dynamics of applications for utility models in 2020 decreased by 4,275 thousand compared to the same period in 2016; the dynamics of applications for trademarks for goods and services had a negative trend compared to 2016. In total, the number of applications for industrial property in 2020 amounted to 46,029 thousand, which is 5,530 less than in the same period of 2016.

Based on the above facts, we can say that Ukraine is losing its authority and attractiveness in the inventive field in the international arena. Effective protection of intellectual property rights affects not only the intellectual potential and ratings of innovation or investment attractiveness, but also its international prestige and domestic level of security. High-ranking legislators should simplify and speed up the patenting procedure, freeing the population from bureaucratic maneuvers that make it difficult to obtain a large number of permits in various instances [18, p. 104].

Analyzing the essence of intellectual investment, their classification, features and differences from conventional investment, as well as studying the development of intellectual investment in Ukraine and the world, we can identify the effects that can be obtained by investing in intellectual capital at different economic levels (Fig. 2).

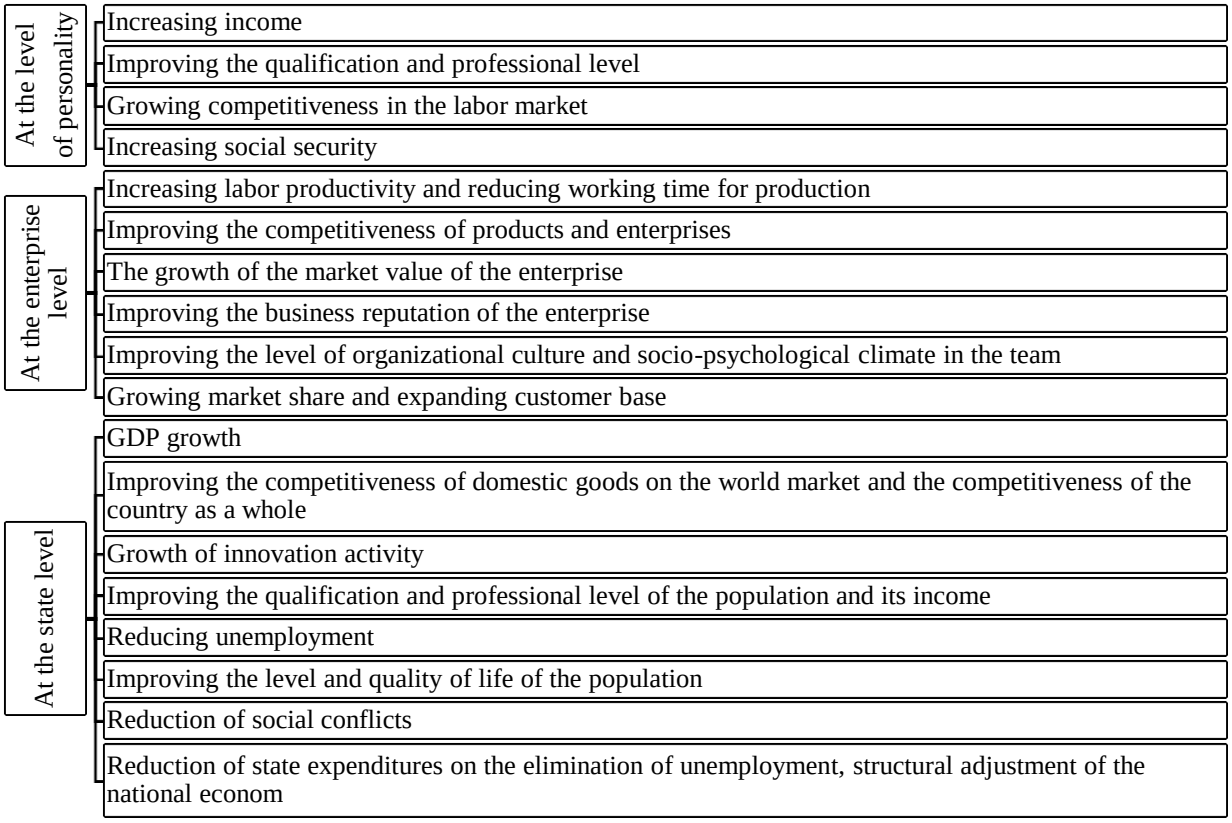

Fig. 2. **Types of effects from the introduction of intellectual investment**
Source: authors' vision

Today there is a difficult situation regarding investment in intellectual capital and the recognition of Ukraine as an attractive country in the field of intellectual investment. After Ukraine's independence, the economy needed a complete reform, there was a wide range of negative factors that still directly or indirectly affect the scientific potential, its development. First of all, this is an insufficient level of budget expenditures on research and development, and therefore a low level of innovation in industry.

Ways to solve the problem of funding are [19, p. 59]:

– improving the investment climate;

– development of the investment market and investment infrastructure;

– creation of effective mechanisms of public-private partnership in infrastructure investment;

– development of a system for preparing programs and projects for public investment.

Also important is the wear and tear, both moral and physical, of most fixed

assets of scientific organizations and institutions. Another factor is the low level of interest of scientists in working in the public sector and the inability of mechanisms to ensure the intellectual rights of investors, as well as the low level of protection.

All this inhibits the development of science. Therefore, a clear program of investment in intellectual capital is needed to overcome the disadvantage. To do this, it is necessary to increase the share of budget funds aimed at the development and implementation of innovations. Forms of financing should not be limited to the budget, it is advisable to attract, for example, foreign or private national investors. These funds should be used both to update the scientific and technical base and to attract skilled labor. And since in recent decades a large number of scientists from Ukraine have emigrated to Western Europe, the United States, it would be appropriate to introduce programs to encourage the return of emigrants to Ukraine.

Thus, the state innovation and investment policy should be aimed at developing effective implementation of innovations in the country's economy, it is necessary to involve the education, science and business sectors, involve small businesses in the introduction of innovation, international cooperation, etc. [20, p. 75].

Conclusions. Thus, analyzing the theoretical basis of the concept of intellectual investment, the author's approach to understanding this category – intellectual investment – any investment in intangible assets: training and retraining, research and development, transfer of know-how, creation of innovative products for additional economic benefits.

The main indicators characterizing the level of development of intellectual investment in the world are analyzed and the main indicators of development of investments in intellectual capital and Ukraine are investigated and it is established that the main problem of innovative development in Ukraine is insufficient financing of education and science, low wages, reducing the number of qualified professionals, forcing them to migrate abroad. All this leads to a decrease in the country's innovation potential.

We have proposed the main areas of measures to stimulate innovative development in the country, which include: providing benefits to enterprises engaged in innovation; preferential lending for innovative projects that are exempt from taxes; development of regional centers of innovative technologies that will facilitate the transfer of knowledge and innovation; to improve the system of financing education and science; simplify and speed up the patenting process by freeing the population from bureaucratic maneuvers that make it difficult to obtain a large number of permits; increase the share of budget funds aimed at the development and implementation of innovations; introduce programs to encourage the return of emigrants to Ukraine.

Prospects for further research in this area are the development of an effective mechanism for investing in intellectual capital. In our opinion, theoretical and applied aspects of determining the effectiveness of investment in the development of intellectual capital at the micro, macro and meso levels also need further development.

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Information about the author

YURCHUK Natalia – Candidate of Economic Sciences, Associate Professor of the Department of Computer Science and Economic Cybernetics, Vinnytsia National Agrarian University (21008, Vinnytsia, 3, Soniachna Str., e-mail: urnata@vsau.vin.ua).

KIPORENKO Svitlana – Assistant of the Department of Computer Science and Economic Cybernetics, Vinnytsia National Agrarian University (21008, Vinnytsia, 3, Soniachna Str., email: kiporis@i.ua).

ЮРЧУК Наталія Петрівна – кандидат економічних наук, доцент кафедри комп'ютерних наук та економічної кібернетики, Вінницький національний аграрний університет (21008, м. Вінниця, вул. Сонячна, 3, e-mail: urnata@vsau.vin.ua).

КІПОРЕНКО Світлана Сергіївна – асистент кафедри комп'ютерних наук та економічної кібернетики, Вінницький національний аграрний університет (21008, м. Вінниця, вул. Сонячна, 3, e-mail: kiporis@i.ua).

ЮРЧУК Наталия Петровна – кандидат экономических наук, доцент кафедры компьютерных наук и экономической кибернетики, Винницкий национальный аграрный университет (21008, г. Винница, ул. Солнечная, 3, email: urnata@vsau.vin.ua).

КИПОРЕНКО Светлана Сергеевна – ассистент кафедры компьютерных наук и экономической кибернетики, Винницкий национальный аграрный университет (21008, г. Винница, ул. Солнечная, 3, e-mail: kiporis@i.ua).

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IMPLEMENTATION OF THE DUAL FORM OF TRAINING OF HIGHER EDUCATION GRADUATORS ON THE BASIS OF THE ALL-UKRAINIAN SCIENTIFIC AND EDUCATIONAL CONSORTIUM

BEREZIUK Sergiy,
Candidate of Economic Sciences,
Associate Professor of the Department of Administrative Management and Alternative Energy Sources,
Vinnytsia National Agrarian University (Vinnytsia)