

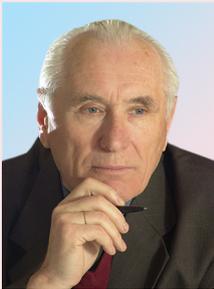
ACADEMIC LIFE

DOI: 10.15838/esc.2022.5.83.15

UDC 347.77; LBC 67.404.3

© Vitiaz P.A., Shcherbin V.K.

Intellectual Property Protection and Technology Transfer in the Activities of the International Association of the Academies of Sciences and the Inter-Academy Council on the Development of the Union State



Petr A.

VITIAZ

IAAS Scientific Council on Protection of Intellectual Property and Technology Transfer

Minsk, Belarus

e-mail: vitiaz@presidium.bas-net.by



Vyacheslav K.

SHCHERBIN

Center for System Analysis and Strategic Research, National Academy of Sciences of Belarus

IAAS Scientific Council on Protection of Intellectual Property and Technology Transfer

Minsk, Belarus

e-mail: shcherbin5353@mail.ru

Abstract. The article considers history of establishment and activities of the International Association of the Academies of Sciences (IAAS) and the system of scientific councils created within it. Institutional features of IAAS scientific councils are shown on the example of the Scientific Council on Protection of Intellectual Property and Technology Transfer, which plays a crucial part in the successful implementation of scientific potential of the academies of sciences and other departmental organizations (research foundations, universities, international research centers) included in the association. We show how the content of the concepts “mission of the organization” and “vision of the organization” has been transformed with regard to the activities of the Scientific Council. We analyze the topics of scientific

For citation: Vitiaz P.A., Shcherbin V.K. (2022). Intellectual property protection and technology transfer in the activities of the International Association of the Academies of Sciences and the Inter-Academy Council on the Development of the Union State. *Economic and Social Changes: Facts, Trends, Forecast*, 15(5), 274–289. DOI: 10.15838/esc.2022.5.83.15

reports, which are traditionally presented at meetings of the Scientific Council by its members and invited speakers (using the example of the reports made at the last meeting of the Scientific Council, which took place during the First Congress of the Scientific Councils of the IAAS in November 2021). We also consider integration initiatives of the Inter-Academy Council on the Development of the Union State (developing general conditions for intellectual property turnover within the framework of single innovation space, creating institutional structures oriented toward integration, etc.). We substantiate the conclusion about the paramount importance of intellectual property protection and technology transfer for further development of international scientific cooperation within the IAAS and the Inter-Academy Council on the Development of the Union State.

Key words: intellectual property, commercialization of science, International Association of the Academies of Sciences, Inter-Academy Council on the Development of the Union State, scientific and technological consortium, scientific council, technology transfer.

Activity of any international structure is initially governed by appropriate organizational and technical, and regulatory legal acts. The legal basis for/of the activities of International Association of the Academies of Sciences (hereinafter – IAAS) at the time of its establishment were the following documents:

1) “Agreement establishing International Association of the Academies of Sciences” (1993), according to which the IAAS included “the academies of sciences of the Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Socialist Republic of Vietnam, the Republic of Georgia, the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Moldova, the Russian Federation, Slovakia, the Republic of Tajikistan, Turkmenistan, Ukraine, Republic of Uzbekistan, and the Czech Republic”¹. However, “the Slovak Academy of Sciences and the Czech Academy of Sciences participate as observers”². Later, quite impressive quantitative and qualitative composition of the IAAS was expanded by the following fully-fledged members: Chinese Academy of Sciences

(2018), Montenegrin Academy of Sciences and Arts (2018), Mongolian Academy of Sciences (2019)³. Moreover, as a result of the creation of the IAAS Institute of Associate Members, the association includes such well-known and credible organizations in the scientific world as the Joint Institute for Nuclear Research (1997), Russian Foundation for Basic Research (1999), Moscow Institute of Physics and Technology (state university) (2000), Lomonosov Moscow State University (2002), National Research Centre “Kurchatov Institute” (2009), which in 2020 became full-fledged members of the IAAS. It also includes organizations that still have the status of associate members of the IAAS, such as the Russian Humanities Research Foundation (1999), Belarusian Republican Foundation for Fundamental Research (2000), National Academy of Agrarian Sciences of Ukraine (2018); Jiangxi Academy of Sciences (2018); Heilongjiang Academy of Sciences (2019), Shandong Academy of Sciences (2019) became members of the association⁴;

¹ Agreement establishing International Association of the Academies of Sciences (2008). In: *International Association of the Academies of Sciences: Fifteen years of activity*. Kyiv: Akademperiodika.

² Ibidem.

³ Gusakov V.G. (2021). *International Association of the Academies of Sciences*. Minsk: Belaruskaya navuka.

⁴ Ibidem.

2) Ukraine Presidential Decree “On the International Association of Academies of Sciences” (1994), which declared:

“1. To recognize the International Association of Academies of Sciences as an international non-governmental self-regulatory organization.

The International Association of Academies of Sciences is a legal entity and carries out its activities on the territory of Ukraine in accordance with the legislation of Ukraine.

2. To support the founders’ initiative of the International Association of Academies of Sciences on location of the headquarters of this association in the city of Kyiv”⁵.

Already in the early years, the IAAS fully met the expectations of academic scholars of the CIS countries. As the President of the Republic of Belarus A.G. Lukashenko rightly noted in his greeting to the International Association of Academies of Sciences on the occasion of its 5-year anniversary, “life has shown that the unification of the CIS national academies of sciences into the Association was a logical response of scientists to the dramatic events that led to the dissolution of the Soviet Union, the winding up of joint basic research and traditional ties between scientific teams... In a short period of time, the IAAS has established itself as an authoritative structure that has made a number of valuable and constructive proposals for the consideration of the heads of state and government of the CIS countries. This has largely focused attention on improving the situation of the scientific sphere and scientists, and has contributed to solving the problems of the functioning of science in the independent states of the Commonwealth”⁶.

⁵ Documents defining the activities of the International Association of Academies of Sciences (1998). In: Shpak A.P. (Ed.). *International Association of Academies of Sciences and the Development of Science Integration*. Kyiv: Naukova dumka.

⁶ Greeting of the President of the Republic of Belarus A.G. Lukashenko to the International Association of Academies of Sciences (1998). In: Shpak A.P. (Ed.). *International Association of Academies of Sciences and the Development of Science Integration*. Kyiv: Naukova dumka.

Formation of the System of Scientific Councils of the IAAS

At the same time, from the very beginning of the IAAS activity it became obvious that in addition to the abovementioned fundamental documents to solve the problem of successful scientific integration of numerous and quite different in organizational terms national academic and other departmental organizations associated with the IAAS in the post-Soviet space it is necessary to have international scientific councils on various problems and branches of knowledge constantly working at the IAAS. The first such scientific council (the Scientific Council for New Materials) was created on the initiative of academician of the National Academy of Sciences of Ukraine and the Russian Academy of Sciences B.E. Paton in 1995 at the National Academy of Sciences of Ukraine. The effectiveness of the first scientific council can be judged at least by the fact that to date its leadership has held more than two dozen sessions of the council, at which about a hundred problematic scientific reports on materials science were heard and discussed in detail⁷. Other scientific councils were soon established within the IAAS: Joint Scientific Council on Fundamental Geographical Problems (1995), Council of Directors of Scientific Libraries and Information Centers of National Academies of Sciences (1996), Consultative Council on Intellectual Property Protection and Technology Transfer (1997), International Coordinating Committee on Computational Mathematics (1998), Scientific Advisory Council on Scientific Support of Joint Works on Chernobyl (2000), Union of Physiological Societies of CIS Countries (2003) and other proactive structures of scientific advisory.

⁷ Shcherbin V.K. (2018). Activities and prospects for the development of the IAAS Scientific Councils. In: Gusakov V.G. (Ed.). *International Cooperation of Academies of Sciences. 25 years*. Minsk: Belaruskaya navuka.

The practice of creating scientific councils within the framework of the IAAS received a boost after academician V.G. Gusakov was elected head of the IAAS and the city of Minsk was chosen as the headquarters of the association. Currently, the system of scientific councils of the IAAS counts 24 councils⁸, and the method of naming has been unified: the vast majority of them are called “scientific council”. Since the activities of the IAAS Scientific Councils is the main organizational form of uniting the efforts of scientists working in specific fields of science, let us try to reveal the most typical institutional moments in the activity of such councils on the example of the IAAS Scientific Council on Intellectual Property Protection and Technology Transfer, which has been successfully functioning for a quarter of a century.

Activities of the IAAS Scientific Council on Intellectual Property Protection and Technology Transfer (1997–2022)

Among the first international scientific councils the Advisory Board on Intellectual Property Protection and Technology Transfer at the IAAS⁹ was created by the of the IAAS Council Decision 57, dated December 19, 1997, since, as it was reasonably believed, its activities were the most conducive to solving the problems of commercialization of research findings of academic science.

A year later, the IAAS Council Decision 74, dated December 2, 1998 approved the composition of the Advisory Board, appointed its chairperson (Academician of the NAS of Ukraine A.P. Shpak), and approved the Regulations on the Advisory Board, which works on the basis of the NAS of Ukraine. The original composition of the Advisory Council included such famous scientists from the

academies of sciences – members of the IAAS, as Academician of the NAS of Belarus P.A. Vityaz, Academician of the RAS E.M. Dianov, Academician of the Academy of Sciences of the Republic of Kazakhstan S.Z. Zimanov, Academician of the Academy of Sciences of Azerbaijan M.I. Rustamov, Academician of the NAS of the Kyrgyz Republic K.S. Sulaimankulov, Academician of the Academy of Sciences of Turkmenistan H.N. Ernepessov, and other well-known specialists in the field of intellectual property protection and technology transfer¹⁰.

The main objectives of the Advisory Board were defined as “study and dissemination of experience of protection and practical use of intellectual property in the CIS countries, preparation of proposals for improvement of international and internal (national) technology transfer, provision of methodological and expert assistance in concluding contracts for technology transfer”¹¹. After the establishment of the Advisory Board within the IAAS, the development of the above issues of intellectual property protection and technology transfer in the academies of sciences – members of the IAAS intensified dramatically: “From 2000 to 2003, meetings of this Board were held in Kyiv at international workshops for scientists and specialists of CIS countries on intellectual property protection, which were organized jointly by the World Intellectual Property Organization, IAAS, NAS of Ukraine and the State Department of Intellectual Property of the Ministry of Education and Science of Ukraine. It is important that experts from Germany, France, Switzerland, and a number of other countries also took part in these seminars”¹².

⁸ For a full list of the scientific councils of the IAAS see: Scientific Councils of the International Association of Academies of Sciences (2021). International Association of Academies of Sciences. Gusakov V.G. (Ed.). Minsk: Belaruskaya navuka.

⁹ On the Advisory Board on Intellectual Property Protection and Technology Transfer: IAAS Council Decision 57, dated December 19, 1997. *IAAS Bulletin 15*. 1998.

¹⁰ Appendix 1 to the IAAS Council Decision 74, dated December 2, 1998. *IAAS Bulletin 18*. Kyiv, 1999.

¹¹ Appendix 2 to the to the IAAS Council Decision 74, dated December 2, 1998. *IAAS Bulletin 18*. Kyiv, 1999.

¹² Shpak A.P. (2008). International Association of Academies of Sciences. 15 years of activity. Kyiv: Akadempriodika Publishing House of the National Academy of Sciences of Ukraine.

Through the efforts of the members of the Advisory Council, a number of fundamental scientific works and legal and regulatory compilations have been published on the profile of its activities. They include the following publications:

Kapitsa Yu.M. (2000). Export-import of technology: Legal regulation. Kyiv.

Kapitsa Yu.M. (2002). Technology Transfer: Contracting and Marketing. In: Proceedings of the IV International Seminar. Kyiv.

Нормативні акти з питань охорони інтелектуальної власності та трансферу. Київ, 2008. 130 с.

Матеріали міжнародного семінару «Ліцензійні договори та договори про передачу прав інтелектуальної власності в Європейському Союзі та Україні: правове регулювання та практика» (Київ, 22–24 листопада 2010 р.). Київ, 2010. 203 с.

Капіца Ю.М. та ін. Трансфер технологій та охорона інтелектуальної власності в наукових установах: монографія. Київ, 2015. 431 с.

At the same time, according to academician of the NAS of Belarus P.A. Vityaz, who has been a member of the Advisory Board since its creation, “in recent years, there has been a certain decline in the activities of the Advisory Board, which became especially noticeable after the untimely death of the chairperson of the Advisory Board, academician A.P. Shpak”¹³. The decline was also noted in the IAAS Council Decision 247, dated June 3, 2015, which cited the following as its main reason: “The composition of the Advisory Board has not been renewed for a long time, and its

¹³ Vityaz P.A. (2017). Activities of the Advisory Board on Intellectual Property Protection and Technology Transfer at the International Association of Academies of Sciences on the organization of scientific and technological cooperation of academies of sciences – members of the IAAS. *International and National Scientific Organizations as a Factor in the Formation of the Global Scientific Community: Proceedings of an International Symposium (Kyiv, May 15–17, 2017)*. Kyiv: Nash format. Pp. 74–75.

work requires significant revitalization”¹⁴. Based on the IAAS Council Decision 247, the Advisory Board was reshaped (A.P. Shpak, T.F. Bekmuratov, I.N. Ganiev, V.C. Gnuni, D.I. Dzhaparidze, E.M. Dianov, S.Z. Zimanov, S.G. Kanzer, Mai Ha, P.G. Nikitenko V.F. Rudik, M.I. Rustamov, A.B. Sadykhov, K.S. Sulaimankulov, F.T. Takirov and Kh.N. Ernepesov were removed from the Council; Academician of RAS S.M. Aldoshin, Academician of NAS of Ukraine V.L. Bogdanov, Academician of NAS of the Kyrgyz Republic A.A. Borubaev, Academician of the NAS of Azerbaijan I.S. Guliev, director general of the Agency for Innovation and Technology Transfer of the Academy of Sciences of Moldova R.S. Kirke, Corresponding Member of the NAS of Kazakhstan T.K. Kulazhanov, Academician of the Academy of Sciences of Tajikistan A.S. Saidov, Academician of the Academy of Sciences of Georgia A.N. Silagadze, Academician of RAS G.V. Trubnikov, Doctor of Sciences (Engineering) Y.I. Shtrombakh, Academician of NAS of Armenia Y.G. Shukuryan, Candidate of Sciences (Philology) V.K. Shcherbin (Academic Secretary of the Advisory Council) were first made members of the Council; a new chairperson of the Advisory Council has been appointed (Academician of the NAS of Belarus P.A. Vityaz), and the organizational and technical support of the Advisory Council is entrusted to the National Academy of Sciences of Belarus.

From the article of the new chairperson of the Advisory Board, academician of the National Academy of Sciences of Belarus P.A. Vityaz, it follows that “the new members of the Advisory Board are actively involved in the work, having begun their work by refining the text of the

¹⁴ On the Advisory Board on Intellectual Property Protection and Technology Transfer: Decree 247 of the IAAS Board, dated June 3, 2015. Resolutions of the IAAS Board. Available at: www.iaas.nas.gov.ua/resolutions/pages/default.aspx

Regulations on the Advisory Board¹⁵ and developing the Work Plan of the Advisory Board for 2015–2016. At the same time, the new leadership of the Advisory Board was fully aware that the decisions of the IAAS Board on the renewal of the membership of the Advisory Board and the change of its leadership and location would not automatically lead to an increase in its activities. This will only happen if all of the activities of the new Advisory Board are brought into line with the changed conditions of our member academies of science – IAAS members. Today they are entering the era of the global knowledge economy, like the national economic complexes of our countries as a whole”¹⁶. This means that the Advisory Board had to fundamentally reconsider its strategy by clarifying and specifying the content of the concepts of the **organization’s mission and vision** in relation to the current state of its activities.

In the above-mentioned article by Academician of the NAS of Belarus P. A. Vityaz, the process of clarifying the mission of the Advisory Board and the vision of organization of its work is described as follows: “How can we boost the activity of the Advisory Board, thereby increasing its importance as one of the problem boards at the IAAS, in these challenging conditions? In our opinion, it is possible to make adjustments to the strategy of the Advisory Board, to specify the content of the concepts of the **organization’s mission and the vision of the organization** in relation to the current state of its activities. Let us begin with the concept of

the **organization’s mission**. In the existing reference literature, it is interpreted in different ways, but for our case the following definitions of this concept are of particular interest:

- it is “a purpose, a long-term goal, an idea, ... the role of an entity. ...Mission is a statement that reflects the interests of society, the owners and staff of the enterprise, giving an idea of the scope of activities, general principles of work, etc. The mission of an organization is where the process of goal-setting itself begins. There is one rule: no goal in an organization should conflict with the organization’s mission. ...a good mission is a thing of paramount importance, and this importance is constantly increasing. Management theory and practice have not developed a unified approach to the rules of mission development. However, there are a number of recommendations that follow from the general requirements of practice: 1) the mission is timeless, i.e. it is formed with the open-ended time frame; 2) the mission should not depend entirely on the current state of affairs and the state of the organization; 3) it is not customary for the mission to state profit as the main goal or to limit the system of goals to the needs of the organization’s management; 4) there should be no contradictions between the organization’s mission, its goals and the missions of its units”¹⁷;

- it is “a goal that causes members of an organization to feel a state of aspiration toward something. Mission formation is the answer to the question: Why does an organization (or person) do what it (or they) does? It is more than defining an organization’s role. The mission informs the members of the organization what society expects of the organization and what the organization expects of its members”¹⁸.

¹⁵ This refined Regulation on the Advisory Board was soon approved by the resolution of the IAAS Board 257, dated October 20, 2015 “On the Advisory Board on Intellectual Property Protection and Technology Transfer” (Appendix 1).

¹⁶ Vityaz P.A. (2017). Activities of the Advisory Board on Intellectual Property Protection and Technology Transfer at the International Association of Academies of Sciences on the organization of scientific and technological cooperation of academies of sciences – members of the IAAS. In: *International and National Scientific Organizations as a Factor in the Formation of the Global Scientific Community: Proceedings of an International Symposium (Kyiv, May 15–17, 2017)*. Kyiv: Nash format.

¹⁷ Kas’yanov A.A. (2007). *Dictionary of the Manager (Basic Managerial Concepts in State, Socio-Economic and Political Life)*. Rostov-on-Don: Rostizdat.

¹⁸ Kandybovich L.A., Mudrik A.V. (2010). *Knowledge Management: Terminological Dictionary Book*. Minsk.

If we take into account the contents of the above definitions of the **organization's mission** and turn to the formulation of the mission of our Advisory Board (“study and dissemination of experience in protection and practical use of intellectual property in the CIS countries, preparation of proposals on improvement of international and internal (national) technology transfer, rendering methodological and expert assistance in concluding contracts on technology transfer”¹⁹), then the first part of this formulation is immediately evident. On the one hand, the excessive globality of the first part of this wording (“study and dissemination of experience in protection and practical use of intellectual property in the CIS countries”) is immediately striking. Why then do we need all the other interstate, state, industry, private and public structures that regulate the protection of intellectual property and technology transfer in the post-Soviet space? At the same time, the noted globality of the Advisory Council's mission is not supported organizationally or economically. On the other hand, the excessive utilitarianism of the second part of the wording (“preparation of proposals for improving international and internal (national) technology transfer, provision of methodological and expert assistance in concluding contracts for technology transfer”) becomes obvious. Such utilitarianism necessarily implies painstaking and daily work of the members of the Advisory Council to solve the constantly arising practical problems in the field of intellectual property protection and technology transfer in various CIS countries, which in fact cannot be the case in the activities of the Advisory Council, which meets at best once a year. Therefore, the leadership of the Advisory Board proposed a new formulation of the mission: **“to analyze the findings on intellectual property**

protection and technology transfer, to familiarize the governments and the public of the post-Soviet countries with the results of such analysis”.

In turn, the concept of **organization's vision** is explained in the existing reference literature as follows: it is “how we want to see our organization in 10–20 years. This vision may be completely unrelated to the current state of the organization. In order to formulate a vision, we need to ask ourselves the following questions: What do we want our organization to be in the future? What is our business now and what will it be like in the future? Who are the consumers of our products (services) and which group of customers will the organization focus on in the future? In what ways are we going to add value to our products for consumers?”²⁰

Taking into account the above issues related to the vision of the organization, the list of tasks solved by the Advisory Board, the new leadership of the Advisory Board was proposed to be significantly reduced, leaving as the main tasks the following:

1. Organization of joint research in the field of protection and commercialization of intellectual property, international and internal technology transfer.
2. Preparation of analytical reports on intellectual property protection and technology transfer for the IAAS Board and governing bodies of CIS countries.
3. Preparation of joint scientific and reference publications on intellectual property protection and technology transfer.
4. Cooperation with national, international and intergovernmental bodies and organizations involved in the protection and practical use of intellectual property and technology transfer.
5. Organization of conferences, workshops, and meetings on topical areas of the Advisory Board's activities.

¹⁹ Regulations on the Advisory Board on Intellectual Property Protection and Technology Transfer at the International Association of Academies of Sciences (IAAS). *IAAS Bulletin 18*. Kyiv, 1999.

²⁰ Kas'yanov A.A. (2007). *Dictionary of Manager (Basic Managerial Concepts in State, Socio-Economic and Political Life)*. Rostov-on-Don: Rostizdat.

6. Organization of study of issues of intellectual property protection in scientific organizations, preparation of proposals for improving the protection and commercialization of intellectual property in academies of sciences – members of the IAAS.

The new understandings of the Advisory Board's mission, vision and the tasks it addresses were presented for discussion at the first meeting of the new Advisory Board, which took place on September 29, 2016 in Minsk, in the Presidium of the NAS of Belarus²¹.

Subsequently, summarizing the comments and suggestions made at the meeting of the Advisory Board a) on the report of the Advisory Board chairperson, academician of the NAS of Belarus P.A. Vityaz "Mission and vision of the Advisory Board on intellectual property protection and technology transfer at the IAAS in the era of the global knowledge economy" and b) on the essence of the issues raised by the participants of the meeting in an initiative manner, the head of the Advisory Board, academician of the NAS of Belarus P.A. Vityaz outlined in an interview to I. Emel'yanovich, correspondent of the Belarusian magazine *Science and Innovation*, the following promising directions of the Advisory Board's activities: "We will organize joint scientific work in the field of protection and commercialization of intellectual property, international and internal technology transfer, prepare analytical reports, scientific and reference publications on these issues for the IAAS Board and governing bodies of CIS countries. We will continue cooperation with relevant national, international and intergovernmental bodies and organizations,

²¹ Vityaz P.A. (2017). Activities of the Advisory Board on Intellectual Property Protection and Technology Transfer at the International Association of Academies of Sciences on the organization of scientific and technological cooperation of academies of sciences – members of the IAAS. In: *International and National Scientific Organizations as a Factor in the Formation of the Global Scientific Community: Proceedings of an International Symposium (Kyiv, May 15–17, 2017)*. Kyiv: Nash format.

we will hold conferences, workshops, meetings on current areas of activity of the Advisory Board, study the level of intellectual property protection in scientific organizations, develop proposals for improving the protection and commercialization of intellectual property in academies of sciences – IAAS members. In short, to promote in every possible way the knowledge of those who have it to those who need it. For these purposes we propose to create a scientific and practical journal "Intellectual Property of the CIS", which will publish articles by specialists on these issues"²².

In carrying out these plans, the Advisory Board (now called the Scientific Council) in recent years:

1) has held four meetings of the Scientific Council (September 26, 2016, December 12, 2017, September 21, 2018, and November 24, 2021) at the NAS of Belarus;

2) has created an Interdepartmental Working Group within the Scientific Council on the basis of the NAS of Belarus, which includes 12 leading Belarusian specialists in the field of intellectual property protection and technology transfer; it conducts preliminary scientific expertise of all key documents that are submitted to the meetings of the Scientific Council by its management;

3) has prepared and published an analytical report "The current state and prospects of scientific research on intellectual property protection and technology transfer in academies of sciences – IAAS members" (Minsk, 2016. 58 p.);

4) The Scientific Council was also co-opted by Professor V.I. Kudashov, Doctor of Sciences (Economics)²³, BSTU professor, Eurasian patent attorney, who was unanimously elected deputy chairperson of the Scientific Council at the next meeting;

²² Emel'yanovich I. (2016). Intangible assets in the field of vision of the IAAS Advisory Board (Interview with Academician P.A. Vityazh, Chairperson of the IAAS Advisory Board). *Science and Innovation*. 11.

²³ This nomination was approved by resolution of the IAAS Board 257, dated October 20, 2015.

5) regularly provide the scientific community of the CIS countries with the information on existing problems, scientific-methodological and scientific-organizational achievements of the Scientific Council by preparing and publishing a series of scientific articles about its activities in periodicals of the post-Soviet states and collections of materials of scientific conferences and symposiums, which are regularly held in the post-Soviet space²⁴.

²⁴ See, for example, the following publications: Vityaz P.A., Shcherbin V.K. (2013). Participation of Belarusian scientists in the activities of the IAAS. *Science and Science of Science*, 4, 19–30; Vityaz P.A., Shcherbin V.K. (2014). Contribution of Belarusian scientists to the creation and development of the International Association of Academies of Sciences. *Belarusian Republican Foundation for Fundamental Research*, 1, 36–51; Emel'yanovich I. (2016). Intangible assets in the field of vision of the IAAS Advisory Board (Interview with Academician P.A. Vityazh, Chairperson of the IAAS Advisory Board). *The Science and Innovations*, 11, 10–13; Vityaz P.A. (2017). Activities of the Advisory Board on Intellectual Property Protection and Technology Transfer at the International Association of Academies of Sciences on the organization of scientific and technological cooperation of academies of sciences – members of the IAAS. In: *International and National Scientific Organizations as a Factor in the formation of the Global Scientific Community: Proceedings of the International Symposium (Kyiv, May 15–17, 2017)*. Kyiv: Nash format, 79–82; Vityaz P.A., Shcherbin V.K. (2018). Scientific Councils at the International Association of Academies of Sciences as a form of self-organization of branches of scientific knowledge. *Science and Science of Science*, 2, 91–110; Vityaz P.A., Shcherbin V.K. (2018). The development of the academic form of research organization in world science. In: *The 28th Kyiv International Symposium on Science and History of Science “The 100th Anniversary of the National Academy of Sciences of Ukraine: The Past and the Present” (Dobrovskie readings) (Kyiv, March 12–13, 2018)*. Kyiv: Feniks; Shcherbin V.K. (2018). Scientific Councils of the IAAS as a promising form of organizing interacademic research. In: Korshunov G.P. (Ed.). *Belarusian Science in the Conditions of Modernization: Proceedings of the International Scientific-Practical Conference (Minsk, September 20–21, 2018)*. Minsk: StroiMediaProekt; Shcherbin V.K. (2018). Activities and prospects for the development of the IAAS Scientific Councils. In: Gusakova V.G. (Ed.). *International Cooperation of Academies of Sciences. 25 years*. Minsk: Belaruskaya navuka; Vityaz P.A., Shcherbin V.K. (2019). Modern technoscience is the result of the convergence of new forms of organization of scientific research. In: *The International Symposium “National Academies of Sciences: Current State, Problems, Development Prospects and Priorities for Cooperation within the IAAS”, dedicated to the 90th anniversary of Gennadii Mikhailovich Dobrov (1929–1989), Corresponding Member of the Ukrainian SSR Academy of Sciences, Professor, founder of scientific school of science studies*

The secretariat of the Scientific Council is preparing a consolidated collection of materials from the 2016–2021 meetings of the Scientific Council for printing. In order to characterize the traditional problems of scientific reports presented at the meetings of the Scientific Council by its members and invited speakers, we will give as an example a brief overview of the content of the reports of the last meeting, held during the First Congress of the Scientific Councils of the IAAS (November 24, 2021).

Analysis of the topics of reports presented at the last meeting of the IAAS Scientific Council on Intellectual Property Protection and Technology Transfer (Minsk, November 24, 2021)

In accordance with the IAAS Council Resolution 306 “On the Congress of the Scientific Councils of the IAAS”, adopted on September 20, 2019 at the meeting of the IAAS Council in Dushanbe, it was first planned “to hold the Congress of the Scientific Councils of the IAAS (hereinafter – the Congress) in April 2020 in Minsk, at the National Academy of Sciences of Belarus”²⁵. The plan was to gather practically all the active core of the IAAS, i.e. leaders of full and associate members of the IAAS, all members of the IAAS scientific councils (the Association has 24 such councils), IAAS staff, as well as invited representatives of major international scientific organizations. However, for reasons related to the COVID-19 pandemic, the scheduled dates of the Congress were postponed several times. Finally, it was developed the safest (in the context of the COVID-19 pandemic) meeting format: only the heads of the full and associate members of the IAAS, as well as

in Ukraine, initiator of creation and first head of the Center for Research of Scientific and Technical Potential and History of Science of the Ukrainian SSR Academy of Sciences (Kyiv, June 6–7, 2019). Kyiv: Nash format; Institutional development of the International Association of Academies of Sciences: From scientific councils to international scientific and technological consortia. (2020). *Journal of the Belarusian State University. Sociology*, 2, 4–19; Vityaz P.A. (2022). Building the capacity of intangible assets. *The Science and Innovations*, 4, 50–52; etc.

²⁵ See: Bulletin of the International Association of Academies of Sciences No. 69. Minsk, 2020.

the heads and academic secretaries of the IAAS Scientific Councils were to participate in its work in person. As for the bulk of the members of the IAAS Scientific Councils, they could attend online those meetings of the IAAS Scientific Councils, which were scheduled during the First Congress of the IAAS Scientific Councils (November 23–26, 2021). Such integrated (in person and online) meetings of the scientific councils of the IAAS included, in particular, the following events:

1) meeting of the Young Scientists Board of the IAAS in the form of a videoconference (November 23, 2021);

2) meeting of the Scientific Council on Petrochemistry IAAS in conjunction with the 4th International Scientific and Technological Forum on Chemical Technologies and Oil and Gas Refining (November 23, 2021) at the Belarusian State Technological University;

3) meeting of the Scientific Council on Intellectual Property Protection and Technology Transfer of the IAAS (November 24, 2021) in the building of the Presidium of the NAS of Belarus in the format of videoconference. Consideration of the problems of the reports of the last meeting and is one of the ways to reveal the institutional characteristics of the model Scientific Council of the IAAS.

The session of the Scientific Council on Intellectual Property Protection and Technology Transfer of the IAAS was opened by its chairperson, academician of the NAS of Belarus **P.A. Vityaz**. He noted the particular relevance of issues related to intellectual property protection and technology transfer for today's knowledge economy, announced the agenda, and introduced all participants of the meeting.

Then the floor was given to Y.V. Nechepurenko, Candidate of Sciences (Chemistry), Head of the Research Institute for Physical Chemical Problems of the Belarusian State University. The joint report of **P.A. Vityaz** and **Y.V. Nechepurenko** “**System of intellectual property management in the National Academy of Sciences of Belarus**” describes the

system of intellectual property management in the NAS of Belarus within the framework of the state policy implementation in the sphere of innovation activity. It allowed subordinate organizations to promote themselves among the leaders in the creation of inventions, utility models, plant varieties and know-how, licensing objects of industrial property in the Republic of Belarus and the Russian Federation, as well as to put into civil circulation on the production base of Belarusian enterprises and subordinate organizations a large number of protected industrial properties and other results of scientific and technological activities and the release of commercial products containing protected industrial properties amounted hundreds of millions of rubles per year. The report also identifies the main directions of further development of the intellectual property management system in the NAS of Belarus for the near future, which will allow the Academy of Sciences to fully realize its high personnel, scientific, technical and innovation potential to address the challenges facing the country. Not surprisingly, the report raised a number of questions among the participants of the meeting. For example, Academician S.M. Aldoshin, a member of the Scientific Council, asked a question about the royalty payment mechanism that has taken shape in the NAS of Belarus.

Member of the Scientific Council, Director of the Center for Intellectual Property Research and Technology Transfer of the National Academy of Sciences of Ukraine (CIPRTT) Doctor of Sciences (Law) Yu.M. Kapitsa made an online presentation “Actual issues of creation, protection and use of intellectual properties by scientific organizations of the NAS of Ukraine”. He noted that the Intellectual Property (IP) Policy of the NAS of Ukraine was adopted in 2008 and includes the Regulations on the use of intellectual property rights; the Model Regulations of the Division of Technology Transfer, Innovation and Intellectual Property of Scientific Organizations of NAS of Ukraine; model agreements with inventors and authors on the service of intellectual property rights

and remuneration, as well as other acts of the NAS of Ukraine. To date, departments of technology transfer, innovation and intellectual property have been established in 92 academic organizations, including the Vernadsky National Library of Ukraine. Answering the question of Academician of the NAS of Belarus P.A. Vityaz about changes in the patent activity, Yu.M. Kapitsa said that in comparison with 1987–1989, in the 1990s there was 11 times reduction of applications by the academic institutions due to the crisis in the economy. In 2000 due to gradual growth of research funding there was an increase in the number of applications and patents. Inventive activity by both businesses and academic organizations has been most negatively impacted by the increase in patenting fees in 2007 and 2019.

Responding to the questions of Candidate of Sciences (Engineering) A.A. Uspenskyi about a) sales of patents by organizations of the NAS of Ukraine at the international patent auctions and b) creation of start-ups and spin-offs in the NAS of Ukraine the speaker said the following: a) from his point of view, it is expedient and more profitable to develop investments in commercialization of IP of institutes, than to sell patents; b) 180 small enterprises, about 100 scientific and technical cooperatives, over 40 centers of scientific research organizations, all-Union societies of inventors and efficiency experts, NTTU were created in the NAS of Ukraine in the 90's. However, due to the adoption in 2006 of the Law of Ukraine "On management of state property", which restricted the ability of state organizations to act as founders of economic societies, these activities were practically ceased. In 2015, amendments to the Law of Ukraine "On scientific and scientific and technological activity" on the simplified procedure for creation of business partnerships by state scientific organizations and institutions of higher education were developed by the CIPRTT of the NAS of Ukraine. At the same time, the implementation of this law is constrained by the unresolved issue of the transfer of dividends from activities of business

partnerships directly to state organizations. The speaker noted the importance of sharing experience in the protection and use of IP within the IAAS, as well as the feasibility of comparative studies of experience in the creation and commercialization of IP and technology transfer in academic science academies – members of the IAAS. In particular, such experience was used to compare the regulation of research on patent purity, patent statistics in Belarus, Kazakhstan, the Russian Federation and Ukraine²⁶.

Then, a member of the Interdepartmental Working Group under the Scientific Council, General Director of the National Center of Intellectual Property within the Committee for Science and Technology of the Republic of Belarus, Candidate of Sciences (Law) V.A. Ryabovolov delivered his report "**Intellectual property as an effective tool for sustainable socio-economic development of the country**"²⁷. He emphasized that intellectual property is one of the most valuable assets (the total value of global intangible assets in 2020 reached 65.7 trillion US dollars, and profits from the use of intellectual properties – 369.3 billion US dollars). In addition, he carried out a comparative analysis of the macro dynamics of the use of intellectual property rights in the most developed and medium-developed countries (the USA, Switzerland, Hungary, the Russian Federation, Poland, the Czech Republic, the Republic of Belarus and Ukraine). The result of the analysis is the conclusion that compared to the most developed countries (Japan, the United States and China), in which the inventive and applicant activity is constantly growing, these types of activity in the post-Soviet states is gradually decreasing. According to V.A. Ryabovolov, in the Republic of Belarus the

²⁶ Винахідницька діяльність у наукових установах (2021). за ред. Ю.М. Капіци; кол. авторів: Ю.М. Капіца, Т.Г. Косско, Д.С. Махновський, І.І. Хоменко, Н.І. Арапова, М.П. Туров: Наук.-практ. вид. К.: Логос. 455 с. Available at: https://ipr.nas.gov.ua/?page_id=1890

²⁷ The full contents of the report can be found in: Ryabovolov V.A. (2022). Intellectual property as a tool for sustainable growth. *The Science and Innovations*, 1, 62–66.

decrease, for example, of the applicant activity is caused by the following reasons: 1) compulsory commercialization of the results of scientific and technological activities, created at the expense of state funds; 2) financial burden on applicants to pay patent fees (since 2014, the cost of obtaining a patent for an invention has increased from 62 to 400 US dollars); 3) inconsistency of certain norms in the field of incentives for inventive activity. The speaker believes that a number of measures defined by the Strategy of the Republic of Belarus in the field of intellectual property up to 2030, approved by the Council of Ministers of the Republic of Belarus on November 24, 2021, will help to neutralize the negative effects of the above-mentioned reasons. The high level of interest in the content of the report was emphasized by questions from the meeting participants. In particular, Candidate of Sciences (Engineering) A.A. Uspenskii was particularly interested in the answer to the question of whether scientific organizations and production enterprises of the republic allocate funds for foreign patenting.

A member of the Interdepartmental Working Group with the Scientific Council, Head of the Department “Republican Center of Technology Transfer” of the State Scientific Institution “Center for System Analysis and Strategic Research of the National Academy of Sciences of Belarus”, Candidate of Sciences (Engineering) A.A. Uspenskii made his presentation “Policy and legislation in the field of technology transfer in the Republic of Belarus: Status, problems, prospects”. The data presented that the income per capita from the export of licenses and patents is 1750 USD/person in Israel, 890 USD/person in Germany, 390 USD/person in the USA, 250 USD/person in Japan, 25 USD/person in Russia and 30 USD/person in Belarus was of particular interest for the participants of the meeting. Belarus is at least 8 times behind the leading world powers and 58 times behind Israel, whose population (8.9 million) is comparable to the population of Belarus (9.4 million). Based on the

comparative analysis of the policy and legislation of Belarus and developed countries of the world and the degree of their effectiveness in the field of technology transfer and commercialization, the speaker formulated 12 proposals for improving the policy and legislation of the Republic of Belarus in this area. These include: a) development of a number of the newest regulatory acts in the field of intellectual property; b) development of mechanisms allowing organizations of all forms of ownership to attract foreign specialists to solve technical problems they face; c) introduction of the course “Technology Transfer” into curricula of Belarusian universities; d) creation in the Republic of Belarus of the Republican auction of intellectual property. The high relevance of the proposals formulated by the speaker is evidenced by the questions received from the participants of the meeting (S.M. Aldoshin, P.A. Vityaz, Yu.M. Kapitsa et al.).

Academic Secretary of the Scientific Council on Intellectual Property Protection and Technology Transfer of the IAAS Candidate of Sciences (Philology) **V.K. Shcherbin** presented the report “**Analysis of external and internal risks and threats in the field of intellectual property**”. First, he analyzed external risks and threats, which included the following risky phenomena: industrial espionage, outpacing commercialization of ideas of domestic scientists by foreign firms, outpacing patenting of well-known scientific ideas by Western corporations, underestimating the achievements of Belarusian science in the Western and domestic media, brain drain and scientific content from post-Soviet countries to the far abroad. Then the speaker characterized the internal risks and threats: intellectual piracy; clearly insufficient protection of intellectual property in the domestic market and imperfect practice of its enforcement; violations of scientific ethics (plagiarism, compilation, etc.); excessive secrecy in the scientific and technical sphere; formation of distorted ideas about the level of intellectual property in the domestic media, etc.

The analysis of external and internal risks and threats carried out by the speaker allowed identifying and summarizing the proposals of foreign and domestic experts on the protection of intellectual property, developed taking into account the specifics of a particular area of activity associated with the development, protection and use of intellectual properties. Thus, in *the area of the international division of labor*, according to Italian researcher C. Vercellone, “two minimum preconditions must be met: 1) a structure that recognizes the right of developed and developing countries to establish their own, distinct system of intellectual property rights, and 2) a restoration of the right to selective protectionism”²⁸. In the *area of patent policy*, according to Belarusian researcher V.I. Kudashov, an effective means of protecting national IPs and even replenishing them is patent-license exchange²⁹. In the *area of science policy* in assessing the role of intangible assets and IPs, according to Russian scientist S.G. Kara-Murza, it is necessary to identify and “revive” those “invisible” resources, which were actualized in the USSR, but “deadened” as a result of perestroika reforms³⁰. Finally, in the field of scientific ethics, the speaker believes that an effective means of protecting IPs is the development of moral codes in each field of scientific knowledge, as well as the creation of national committees and commissions on scientific ethics, which would monitor the compliance of all scientists with the standards of scientific ethics in relation to IPs, as stated in these moral codes.

The results of the meeting of the IAAS Scientific Council on Intellectual Property Protection and Technology Transfer were summarized by its chairperson academician **P.A. Vityaz** who proposed

²⁸ Vercellone C. (2007). The question of development in the age of cognitive capitalism. *Logos*, 4, 165.

²⁹ Kudashov V.I. (2008). *Management of Intellectual Property: Textbook for University Students*. 2nd ed. Minsk: IVTs Minfina.

³⁰ Kara-Murza S.G. (2009). Science for the global economy or for life? In: Arutyunova V.S., Lisichkina G.V., Malinetskogo G.G. (Eds.). *Science of Russia. From the Present to the Future*. Moscow: LIBROKOM.

those participants of the meeting (in person and online) who are not members of the Scientific Council to be fully engaged in its activities as well as in the activities of the Interagency Working Group, which will allow introducing them into the IAAS scientific-organizational structures in the future. Moreover, the most urgent questions and ideas expressed at this meeting of the Scientific Council were submitted by P.A. Vityaz for consideration by the participants of the plenary session of the First Congress of the Scientific Councils of the IAAS, which took place in the building of the Presidium of the NAS of Belarus on November 25, 2021. At the above plenary session, **P.A. Vityaz** made a report “**On the results of the activities of the IAAS Scientific Councils and expansion of their list**”. An informal discussion of issues related to intellectual property protection and technology transfer continued at a reception organized on the same day for the participants of the First Congress of the IAAS Scientific Councils at the Victoria SPA Hotel (Minsk).

Integration initiatives of the Inter-Academy Council on the problems of development of the Union State in the field of innovation cooperation and turnover of intellectual property

The activities of the Inter-Academy Council of the Russian Academy of Sciences and the National Academy of Sciences of Belarus on the problems of development of the Union State make a significant contribution to solving the problems of intellectual property protection and technology transfer in Russia and Belarus. This Council takes an active part in the formation of the Union scientific and technical programs and conducts their scientific expertise. In addition, conceptual issues of scientific and innovative development of the Union State are discussed at the meetings of the Inter-Academy Council. In particular, in the third collection of works of the Council, dedicated to the 15th anniversary of the Union State and the 20th anniversary of the CIS, the article of S.M. Dedkov “Interacademic scientific and

technological cooperation as a factor in the formation of a single innovation space” was published³¹. It substantiates the provision that “common space” implies common “rules of the game” in the innovation sphere: tax benefits for developers and manufacturers, the rules of technology transfer, the conditions of intellectual property circulation, etc. Ultimately, it is a unified configuration of the National Innovation Systems of the CIS member states”³². Further, in the fifth collection of works of the Inter-Academy Council on the problems of development of the Union State, the article by S.M. Dedkov and V.K. Scherbin “Belarusian strategic initiatives in the context of Eurasian integration” was published³³. Its authors appreciate the role of strategic initiatives in the development of Eurasian integration, “especially if the promotion of such strategic initiatives will be accompanied by the creation of appropriate institutional structures of an integration nature (the EurAsEC Center of High Technologies, the Center for Integration Studies of the Eurasian Development Bank, the Interacademic Council on Development Problems of the Union State, the Belarusian-Russian University, the Eurasian Innovation System, the concept of which was approved by the heads of government”³⁴.

Conclusions

The analysis of the history of formation and activity of the International Association of Aca-

demies of Sciences and the system of scientific councils created within it (on the example of the IAAS Scientific Council on Intellectual Property Protection and Technology Transfer), as well as integration initiatives of the Inter-Academy Council on problems of the Union State development in the field of innovative cooperation and circulation of intellectual property allows making several conclusions.

1. Issues of intellectual property protection and technology transfer are extremely relevant for the development of international scientific cooperation within the IAAS, the Union State of Russia and Belarus, and other integration structures³⁵.

2. Only a legally verified solution of the issues of intellectual property protection and technology transfer will allow creating the necessary legal basis for the formation of international scientific and technological consortia on the basis of already existing scientific councils of the IAAS, as well as integration structures of the CIS and the Union State of Russia and Belarus.

3. International scientific and technological consortia formed within the IAAS, the Union State of Russia and Belarus, and other CIS integration structures should become the main actors in the implementation of the EAEU Strategy in the field of intellectual property.

³¹ Dedkov S.M. (2011). Interacademic scientific and technological cooperation as a factor in the formation of a single innovation space. In: *Integration of Science as a Factor in the Construction of the Union State: Scientific Proceedings of the Inter-Academy Council on the Problems of the Development of the Union State. Issue 3*. Minsk: Tsentr sistemnogo analiza i strategicheskikh issledovaniy NAN Belarusi.

³² Ibidem.

³³ Dedkov S.M., Shcherbin V.K. (2013). Belarusian strategic initiatives in the context of Eurasian integration. In: *Interacademic Council on the problems of the Union State. Issue 5. Integration and Security Issues of the Union State*. Minsk: Tsentr sistemnogo analiza i strategicheskikh issledovaniy NAN Belarusi.

³⁴ Ibidem.

³⁵ In favor of the validity of this conclusion is evidenced by an ever-growing list of scholarly articles on the subject. See, for example: Ilyin V.A., Gulin K.A., Uskova T.V. (2010). Intellectual resources as innovation development factor. *Economic and Social Changes: Facts, Trends, Forecast*, 3, 14–25; Leont’ev B.B. (2013). The new intelligent economy. *Partnership of Civilizations*, 4, 194–200; Leont’ev B.B. (2014). Principles of building an intellectual property economy. *Monitoring of Law Enforcement*, 2, 61–65; Kozyrev A.N. (2015). Economics of intellectual property: Measurements, mythology, and mathematical models. *Herald of the Russian Academy of Sciences*, 85(9), 776–784; Kudashov V.I., Kashtelyan T.V. (2015). Conditions and form of intellectual activities commercialization. *Economics and Management*, 3, 15–19; Vityaz P.A. (2022). Building the capacity of intangible assets. *The Science and Innovations*, 4, 50–52; Ryabovolov V.A. (2022). Intellectual property as an instrument of sustainable growth. *The Science and Innovations*, 1, 62–66; etc.

References

- Dedkov S.M. (2011). Interacademic scientific and technological cooperation as a factor in the formation of a single innovation space. In: Dedkov S.M., Egorov V.K. (Eds.). *Integratsiya nauki kak faktor stroitel'stva Soyuznogo gosudarstva: nauchnye materialy Mezhakademicheskogo soveta po problemam razvitiya Soyuznogo gosudarstva. Vypusk tretii* [Integration of Science as a Factor in the Construction of the Union State: Scientific Materials of the Inter-Academy Council on the Problems of Development of the Union State. Issue 3]. Minsk: Tsentr sistemnogo analiza i strategicheskikh issledovaniy NAN Belarusi (in Russian).
- Dedkov S.M., Shcherbin V.K. (2013). Belarusian strategic initiatives in the context of Eurasian integration. In: Dedkov S.M., Egorov V.K. (Eds.). *Mezhakademicheskii sovet po problemam Soyuznogo gosudarstva. Vypusk pyaty. Integratsiya i voprosy bezopasnosti Soyuznogo gosudarstva* [Interacademic Council on the problems of the Union State. Issue 5. Integration and Security Issues of the Union State]. Minsk: Tsentr sistemnogo analiza i strategicheskikh issledovaniy NAN Belarusi (in Russian).
- Emel'yanovich I. (2016). Intangible assets in the field of vision of the IAAS Advisory Board (Interview with Academician P.A. Vityaz, chairperson of the IAAS Advisory Board). *Nauka i innovatsii=The Science and Innovations*, 11, 10–13 (in Russian).
- Gusakov V.G. (2021). *Mezhdunarodnaya assotsiatsiya akademii nauk* [International Association of Academies of Sciences]. Minsk: Belaruskaya navuka.
- Ilyin V.A., Gulin K.A., Uskova T.V. (2010). Intellectual resources as a driver of innovative development. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz=Economic and Social Changes: Facts, Trends, Forecast*, 3, 14–25 (in Russian).
- Kandybovich L.A., Mudrik A.V. (2010). *Menedzhment znaniy: terminologicheskii slovar'-spravochnik* [Knowledge Management: Terminological Dictionary Book.]. Minsk: Kharvest.
- Kara-Murza S.G. (2009). Science for the global economy or for life? In: Arutyunov V.S., Lisichkin G.V., Malinetskii G.G. (Eds.). *Nauka Rossii. Ot nastoyashchego k budushchemu* [Science of Russia. From the present to the future]. Moscow: LIBROKOM (in Russian).
- Kas'yanov A.A. (2007). *Slovar'-spravochnik rukovoditelya (Osnovnye upravlencheskie ponyatiya v gosudarstvennoi, sotsial'no-ekonomicheskoi i politicheskoi zhizni)* [Dictionary of Manager (Basic Managerial Concepts in State, Socio-Economic and Political Life)]. Rostov-on-Don: Rostizdat (in Russian).
- Kozyrev A.N. (2015). Economics of intellectual property: Measurements, mythology, and mathematical models. *Vestnik Rossiiskoi akademii nauk=Herald of the Russian Academy of Sciences*, 85(9), 776–784 (in Russian).
- Kudashov V.I., Kashtelyan T.V. (2015). Conditions and forms of commercialization of the results of intellectual activity. *Ekonomika i upravlenie=Economics and Management*, 3, 15–19 (in Russian).
- Leont'ev B.B. (2013). The new intellectual economy. *Partnerstvo tsivilizatsii=Partnership of Civilization*, 4, 194–200 (in Russian).
- Leont'ev B.B. (2014). Principles of building an intellectual property economy. *Monitoring pravopimeneniya=Monitoring of Law Enforcement*, 2, 61–65 (in Russian).
- Ryabovolov V.A. (2022). Intellectual property as a tool for sustainable growth. *Nauka i innovatsii=The Science and Innovations*, 1, 62–66 (in Russian).
- Shcherbin V.K. (2018). Activities and prospects for the development of the IAAS Scientific Councils. In: Gusakov V.G. (Ed.). *Mezhdunarodnoe sotrudnichestvo akademii nauk. 25 let* [International Cooperation of Academies of Sciences. 25 years]. Minsk: Belaruskaya navuka (in Russian).
- Shcherbin V.K. (2018). Scientific councils of IAAS as the perspective form of organization of inter-academic research. In: Korshunov G.P. (Ed.). *Belorusskaya nauka v usloviyakh modernizatsii: mat-ly Mezhdunar. nauch.-prakt. konf. (g. Minsk, 20–21 sent. 2018 g.)* [Belarusian Science in the Conditions of Modernization: Proceedings of the International Scientific Practical Conference (Minsk, September 20–21, 2018)]. Minsk: StroiMediaProekt (in Russian).
- Shpak A.P. (1998). Documents defining the activities of the International Association of Academies of Sciences. In: *Mezhdunarodnaya assotsiatsiya akademii nauk i razvitie integratsii v sfere nauki* [International Association of Academies of Sciences and the Development of Science Integration]. Kyiv: Naukova dumka (in Russian).
- Shpak A.P. (1998). *Mezhdunarodnaya assotsiatsiya akademii nauk i razvitie integratsii v sfere nauki* [International Association of Academies of Sciences and the Development of Science Integration]. Kyiv: Naukova dumka (in Russian).

- Shpak A.P. (2008). *Mezhdunarodnaya assotsiatsiya akademii nauk. 15 let deyatel'nosti* [International Association of Academies of Sciences. 15 years of activity]. Kyiv: Akadempriodika (in Russian).
- Vercellone C. (2007). Development in the age of cognitive capitalism. *Logos*, 4, 144–167 (in Russian).
- Vitiaz P.A. (2017). Activities of the Advisory Board on intellectual property protection and technology transfer at the International Association of Academies of Sciences on the organization of scientific and technological cooperation of academies of sciences – IAAS members. In: *Mezhdunarodnye i natsional'nye nauchnye organizatsii kak faktor formirovaniya global'nogo nauchnogo soobshchestva: mat-ly mezhdunar. simpoziuma (Kyiv, 15–17 maya 2017 g.)* [International and National Scientific Organizations as a Factor in the Formation of the Global Scientific Community: Proceedings of the International Symposium (Kyiv, May 15–17, 2017)]. Kyiv: Nash format. 72–86 (in Russian).
- Vitiaz P.A. (2022). Building the capacity of intangible assets. *Nauka i innovatsii=The Science and Innovations*, 4, 50–52 (in Russian).
- Vitiaz P.A., Shcherbin V.K. (2013). Participation of Belarusian scientists in the activities of IAAS. *Nauka i naukovedenie=Science and Science of Science*, 4, 19–30 (in Russian).
- Vitiaz P.A., Shcherbin V.K. (2014). The contribution of Byelorussian scientists in the creation and development of the International Association of Academies of Sciences. *Vestnik Fonda fundamental'nykh issledovaniy=Bulletin of the Foundation for Fundamental Research*, 1, 36–51 (in Russian).
- Vitiaz P.A., Shcherbin V.K. (2018). Scientific Councils at the International Association of Academies of Sciences as a form of self-organization of branches of scientific knowledge. *Nauka i naukovedenie=Science and Science of Science*, 2, 91–110 (in Russian).
- Vitiaz P.A., Shcherbin V.K. (2018). The development of the academic form of research organization in world science. In: *XXVIII Kievskii mezhdunarodnyi simpozium po naukovedeniyu i istorii nauki “100-letie Natsional'noi akademii nauk Ukrainy: proshloe i sovremennost” (Dobrovskie chteniya) (Kyiv, 12–13 marta 2018 g.)* [The 28th Kyiv International Symposium on Science and History of Science “The 100th Anniversary of the National Academy of Sciences of Ukraine: The Past and the Present” (Dobrovskie readings) (Kyiv, March 12–13, 2018)]. Kyiv: Feniks (in Russian).
- Vitiaz P.A., Shcherbin V.K. (2019). Modern technoscience as a result of the convergence of new forms of organization of scientific research. In: *Mezhdunarodnyi simpozium “Natsional'nye akademii nauk: sovremennoe sostoyanie, problemy, perspektivy razvitiya i priority sotrudnichestva v ramkakh MAAN” posvyashchaetsya 90-letiyu so dnya rozhdeniya Gennadiya Mikhailovicha Dobrova (1929–1989), chl.-korr. AN USSR, professora, osnovatelya nauchnoi shkoly po naukovedeniyu v Ukraine, initsiatora sozdaniya i pervogo rukovoditelya Tsentra issledovaniy nauchno-tehnicheskogo potentsiala i istorii nauki AN USSR (Kyiv, 6–7 iyunya 2019 g.)* [International Symposium “National Academies of Sciences: Current State, Problems, Development Prospects and Priorities of Cooperation within the IAAS”, dedicated to the 90th anniversary of Gennadii Mikhailovich Dobrov (1929–1989), Associate Professor, founder of scientific school of science in Ukraine, initiator of creation and first head of the Center for Research of Scientific and Technical Potential and History of Science of the Ukrainian Academy of Sciences (Kyiv, June 6–7, 2019)]. Kyiv: Nash format (in Russian).
- Vitiaz P.A., Shcherbin V.K. (2020). Institutional development of the International Association of Academies of Sciences: From Scientific Councils to International Scientific and Technological Consortia. *Zhurnal Belorusskogo gosudarstvennogo universiteta. Sotsiologiya=Journal of the Belarusian State University. Sociology*, 2, 4–19 (in Russian).

Information about the Authors

Petr A. Vitiaz – Doctor of Sciences (Engineering), Academician of the National Academy of Sciences of Belarus, Honored Scientist of the BSSR, chairperson, IAAS Scientific Council on Protection of Intellectual Property and Technology Transfer (66, Independence Avenue, Minsk, 220072, Belarus; e-mail: vitiaz@presidium.bas-net.by)

Vyacheslav K. Shcherbin – Candidate of Sciences (Philology), Leading Researcher, Centre for System Analysis and Strategic Research, National Academy of Sciences of Belarus; academic secretary, IAAS Scientific Council on Protection of Intellectual Property and Technology Transfer (1, Akademicheskaya Street, Minsk, 220072, Belarus; e-mail: shcherbin5353@mail.ru)

Received March 2, 2022.