RUSSIA-BELARUS INTEGRATION AS A TOOL OF SECURITY STRATEGY

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Problems of designing new types of integration spaces

The article analyses the conceptual content of the concept 'space', the widespread use of which in different fields of scientific knowledge is the most obvious indication of 'spatial turn', which was outlined in modern science in the late 1980s. The structure of the integration spaces formation theory, developed by the Belarusian researchers, is revealed. The necessity of designing the new types of integration spaces, the main economic resource of which is the latest scientific knowledge, is justified.

Concept of space, spatial turn in modern science, integration spaces of different types, integration spaces formation theory.



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1. The concept of 'space' as a cognitive basis for 'spatial turn' in modern science

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In recent decades, researchers, who study integration processes going on in the different regions of the world, more and more often use such general categorical concept, as *space* to describe the results of these processes:

"Recognizing space as a phenomenon and addressing this category is connected with the functional and social structure of modern society that is rapidly becoming more complex — from a country to the global world, the society, in which various types of spaces are beginning to play an increasingly important and often

leading role in comparison with traditional types of territorial and socio-economic organization"¹.

For example, within one and the same country, the category of space is used by different social groups to achieve quite different goals: "The people in power create spaces, where they can use their 'force' – cities, shopping centres, schools, jobs, homes. The weak create their own spaces within them, appropriating them for a time, moving through them, occupying them as much as they need"². On the other hand, the division, for example, of the country's political space can be based not on social groups, but on political and administrative-territorial factors: "Organization of the country's political space implies its division into two main levels of political power: first, the central level embodied in the system of state (national) political institutions, political groups and leaders acting within their framework; second, the regional level, which is understood as political-territorial communities of the country that include political institutions, leaders, citizens, etc., living within certain political or administrativeterritorial formations"3.

The world community is guided by the most global objectives, using the category of space for handling demographic and geopolitical issues: "Mankind escaped from the deadlock of endless self-destructive strife for space and resources by reorganising the strategy of living, finding new instructional decisions. A new formation for humanity is akin to a new ecological niche for biological species in nature. It allows people to penetrate 'new spaces', avoiding overpopulation and associated danger

of mutual extermination... Having moved into the new space-time, humanity will abandon current geopolitical disputes as something minor"⁴.

Due to the above-mentioned multipurpose and multilevel usage of the category of space, the researchers have come to the opinion that 'space is a complicated concept"⁵. Moreover, the complexities, which researchers have to overcome when dealing with the categorical notion of *space*, are to a great extent connected with an extremely high ontological status of the category behind the term. We recall that Aristotle included it in the first ten basic philosophic categories⁶. Later, in the 19th century, English sociologist H. Spencer confirmed a high ontological level of this categorical concept: "Space is the abstract of all relations of co-existence"⁷.

However, the greatest difficulties in defining the concept of *space* arise out of exceptional variety of approaches to the interpretation of the essence of this concept in different fields of science. In particular, hundreds of different types of spaces can be analysed within the framework of one monograph⁸. For example, today there are more than a hundred types of integration spaces alone⁹. It is a pressing necessity of systematizing such typological

¹ Transnational political spaces: phenomenon and practice. Executive Editor M.S. Strezhneva. Moscow: Publishing house "Ves mir", 2011. P. 7.

² Shapinskaya Ye.N. Power and resistance in the space of contemporary culture. Filosofskiye nauki. 2012. No. 10. P. 121.

³ Semchenkov A.S. Cycles of reorganisation of political space and the ways to prevent internal conflicts in Russia. The Moscow University herald. Series 12. 2009. No. 2. P. 4.

⁴ Panarin A.S. Revenge of history: Russia's strategic initiative in the 21st century. Moscow: Publishing Corporation "Logos", 1998. P. 15-16.

⁵ Lossau J. Räume von Bedeutung. Spatial turn, cultural turn und Kulturgeographie. Translated from German. Germeneya: zhurnal filosofskikh perevodov. 2012. No. 1. P. 99.

⁶ Aristotle. Categories: With the "Introduction" of Porphyry to Aristotle's "Categories": translated from ancient Greek. 3rd ed. Moscow: Publishing House "LIBROKOM", 2012. P. 6.

⁷ Spencer H. The classification of the sciences. Translated from English. Moscow: Vuzovskaya kniga, 2006. P. 4.

⁸ See, for example: Language and space: problems of ontology and epistemology: monograph. Ed. by A.E. Levitskiy, S.I. Potapenko. Nizhyn: Publishing house of Nizhyn Gogol State University, 2011.

⁹ Shcherbin V.K. Typology of integration spaces in the aspect of content-analysis. Language and space: problems of ontology and epistemology: monograph. Ed. by A.E. Levitskiy, S.I. Potapenko. Nizhyn: Publishing house of Nizhyn Gogol State University, 2011. P. 130-174.

diversity of existing spatial structures that urges individual researchers to reduce numerous interpretations of the concept of *space* to several major classes of meanings.

So, Russian sociologist V.N. Yarskaya believes that "the category of space inherits all the semantic wealth accumulated in the intellectual battles of cultures. In substantive tradition, in the first semantic cut, space serves as a special substance, the main parameters are the measurement, geopolitics, geography, statistics, the research task is to create an object, a measuring instrument. At the other semantic level space is interpreted as a subjective reality, representing what exists in the mental aspect, carrying out scaling and creating subjective scales. And the main semantic level is the space of symbols and meanings, and social organization of space"10. A similar approach to the classification of the main meanings of the concept space is proposed by Russian political scientist N.Yu. Zamyatina: "The concept space in scientific practice is used in various meanings. The two most common meanings are 'physical' space and space as a metaphor (and a conceptual design) used to describe the structure of some phenomenon in accordance with a certain conditional coordinate system (see, for instance, an example of creating the electoral space described in the coordinates 'left' - 'right', 'Zapadniki' (Westernists) -'Pochvenniki' (the 'native soil' movement), etc)"11.

Moreover, some foreign and domestic philosophers go even further, claiming that the two basic semantic classes of specific meanings of the concept of *space* allocated above (physical, geographical space and metaphorical, symbolic space) are inextricably linked through the

presence of general structural properties. In particular, according to the American philosopher M. Wartofsky, "regardless of whether we understand space in physical and geometrical sense, or as a sociological or psychological 'space', an important thing is that all these concepts of space, used in various sciences, have important common structural properties"12. In turn, Belarusian researchers V.K. Lukashevich and T.Ye. Novitskava reveal the relationship of these semantic classes of spatial meanings as follows: "Physical space, on the one hand, is the ground for the existence of social space, and on the other hand, as human environment, it is a projection of social relations. Besides, the later approaches to social space initially contain provisions of philosophical concepts of space due to the application of some of the properties of physical space to the socio-spatial organization of society"13.

The representatives of geographical science, who study land surface most profoundly, also have their own opinion concerning the vectors of interaction of two basic semantic classes of spatial meanings: "German geography is concerned with the elaboration of the correct attitude toward the spatial turn. On the one hand, it observes the 'return to space' in related disciplines with great attention and interest... On the other hand, geography, in fact, is involved in interdisciplinary discussions about space only to some degree" 14. This, according to J. Lossau, is conditioned by the following reasons: "Contrary to the popular understanding of geography, cultural geography

¹⁰ Yarskaya V.N. Globalization of social space. In: Integration processes in modern society (according to the materials of the all-Russian scientific and practical conference). Ed. by M.E. Elutina. Saratov: Aquarius, 2003. P. 4.

¹¹ Zamyatina N.Yu. Spaces of power: physical, metaphorical, mental. In: Space of power: Russia's historical experience and modern challenges. Ed by B.V. Ananyich, S.I. Barzilov. Moscow: MPSF, 2001. P. 64.

¹² Wartofsky M. Metaphysics as heuristic for science. Structure and development of a science: Boston studies in the philosophy of science: translated from English. Moscow: Progress, 1978. P. 83.

¹³ Lukashevich V.K., Novitskaya T.Ye. Structure and dynamics of innovation space. Vesnik BGEU. 2010. No. 5. P. 104.

Lossau J. Räume von Bedeutung. Spatial turn, cultural turn und Kulturgeographie. Translated from German. Germeneya: zhurnal filosofskikh perevodov. 2012. No. 1. P. 102.

doesn't raise the issue concerning the qualities of certain space and the extent, to which it can influence social reality or define it. It rather examines how the spaces are designed as symbolic espacements in the course of verbal communication or everyday practice.

Thus, we can say that the cultural turn inside geography led to the culturalization of space, in the context of which the old geographical 'realistic' view of the physical space of the earth's surface loses its meaning. In social and culturological sciences, on the contrary, the opposite situation can be observed. Here the spatial turn led to the espacement of cultural meanings, so that the 'rough' concrete side of social reality, and not least its physical, material foundations are reconsidered more closely"15. And speaking about the starting point of formation of 'spatial turn' in contemporary science, Ye.G. Trubina points out that "the beginning of the 'turn' can be dated March 1967, when Michel Foucault delivered his lecture, which was later called 'Of other spaces', and which was first published in the original language in October 1984"16.

The aforementioned methodological and cognitive-conceptual possibilities of spatial turn, in our opinion, are implemented to the fullest extent when considering complex, interdisciplinary phenomena, including, of course, modern international integration. The interdisciplinary nature of the phenomenon of international integration, first of all, is reflected in the fact that its consideration requires comprehensive application of different specific approaches and knowledge: political, economic, sociological, ethnographic, geographical, historical, military, etc.

At that, such comprehensive package concept as *space* acts as one of the key conceptual

dominants of this set of different specific knowledge. According to the Russian philosopher A.I. Rakitov, the main peculiarity of such package concepts "consists in the fact that one and the same term, in essence, means a whole family or package, in a certain relation of similar concepts that are, as a rule, impossible to differentiate by purely formal, structural characteristics"¹⁷.

In this particular case (when considering the phenomenon of international integration) the package concept *space* serves as a common cognitive basis for the unification of a number of specific spaces (spiritual, political, economic, social, military, geographic, historical, linguistic and other), in the framework of which the knowledge of various academic disciplines about the processes of formation and development of international integration structures is localized, which makes it possible to give a versatile characteristic of the mentioned processes. The complexity of the work with such package concept as space consists in the necessity to consider the 'family' sets of more split up concepts, adopted from various disciplines and fields of scientific knowledge, in the inseparable unity of the common and individual, the synchronic and diachronic, general scientific and specific interpretations of all the components of the package concept. It is possible to overcome the mentioned difficulty by creating more specialised theories (the theory of formation of integration spaces¹⁸, the theory of economic space¹⁹, etc.)

¹⁵ Lossau J. Ibidem. P. 105.

¹⁶ Trubina Ye. G. Turn to the space: an interdisciplinary movement and problems with its promotion. The political conceptology: journal of metadisciplinary research. 2011. No. 4. P. 40.

¹⁷ Rakitov A.I. Historical cognition. System-gnosiological approach. Moscow: Politizdat, 1982. P. 28.

Report on the research work "The theory of the formation of integration spaces of different types and mechanisms of their interaction" Academic advisor S.M. Dedkov. Minsk: The Centre for System Analysis and Strategic Research of the NAS of Belarus, 2013 (manuscript copyright).

¹⁹ Chekmarev V.V. On the theory of economic space. Problemy novoy politicheskoy ekonomii. 1999. No. 3. P. 25-38; Biyakov O.A. Theory of economic space: methodological and regional aspects. Tomsk: Tomsk University, 2004; Chekmarev V.V., Gulbasov A.V. The theory of economic space. Kostroma: Nekrasov Kostroma State University, Smolensk State University, 2006.

in addition to the existing general theories of international integration²⁰.

In any case, the very definition of a theory (as 'a complex of views, notions, ideas aimed at interpretation and explanation of any phenomenon'²¹) suggests that giving the status of a theory to a forming set of views, ideas and notions concerning different types of integration spaces, will endow it with additional explanatory power and will allow it to reveal a complex and multidimensional phenomenon of integration spaces in more detail.

2. Integration spaces formation theory

In 2011 – 2013 the researchers at the Centre for System Analysis and Strategic Research of the NAS of Belarus carried out a grant research on the topic "The theory of forming integration spaces of different types and mechanisms of their interaction" with the financial support of the Belarusian Republican Foundation for Fundamental Research. This made it possible to outline the framework of such a theory²². In particular, according to the authors of this study, the structure of the specified theory should be represented by the following sections:

1) the fundamentals of international integration, i.e. general ideas about the basic principles, forms and aspects of international

cooperation²³, as well as information about the content of the key integration concepts and notions²⁴;

- 2) the history of international integration (it is based on the collection of works on the chronology of integration process²⁵; on the issue concerning the periodization of the history of integration²⁶; the history of individual integration associations and unions²⁷);
- 3) the typology of integration spaces, which is based on the identification of specific characteristics of these spaces, distinguishing

24 See, for example: Mikhaylenko A., Vertlib Ye. Factor as the key concept of integration in the CIS. Belarus — Russia: neo-Soviet phenomenon of integration. Ed. by L. Zaiko. Minsk: Paradox, 2004. P. 327-347; Danilov A.N., Shcherbin V.K. Integration. The Republic of Belarus: encyclopaedia. In 6 volumes. Vol. 3. Minsk: BelEn, 2006. P. 778-780; . Rybalka Ye.A. Concepts of space in social philosophy. Gumanitarniye i socialno-ekonomcheskiye nauki. 2009. No. 3. P. 39-44; Shcherbin V.K. Concept of 'post-Soviet space' and its concept-variables. The post-Soviet space in the world order of the 21st century: priorities, specifics, prospects: materials of the international scientific-practical conference. Minsk: Mediafakt, 2011. P. 82-91.

See, for example: Balassa B. The theory of economic integration. Homewood: Richard D. Irwin, 1961; Shishkov Yu.V. Theories of regional capitalist integration. Moscow: Mysl, 1978; Yakobait K. Theory of integral integration. Regional integration in Central Asia: collection of articles. Berlin: German Foundation for International Development, 1995. P. 1-22; Rosamond B. Theories of European Iitegration. New York: Palgrave Macmillan, 2000; Shishkov Yu.V. Domestic theory of regional integration: the experience of the past and a look into the future. World economy and international relations. 2006. No. 4. P. 54-63.

²¹ Shvyrev V.S. Theory. New encyclopaedia of philosophy: in 4 volumes. Vol. 4. Moscow: Mysl, 2001. P. 42.

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²³ See, for example: Vityaz P.A., Shcherbin V.K. Promotion of inter-academic cooperation — the real way to the creation of a common scientific and technological space of the CIS. Bulletin of the Foundation for Fundamental Research. 2001. No. 4. P.68-87; Vityaz P.A., Shcherbin V.K. Inter-academic cooperation and the problem of formation of common scientific space of the CIS. Naukovedeniye. 2001. No. 4. P. 32-49; Dedkov S.M. System approach to the geoeconomic aspects of integration. Security & Eurasia. A journal of individual, national and collective security. 2002. No. 2. P. 142-145; Zhibulevskaya S.A., Shcherbin V.K. "Akademkniga" — one of the forms of integration of Belarusian and Russian science. Nauchnaya kniga. 2002. No. 2. P. 8-10, etc.

²⁵ See, for example: Shcherbin V.K. Comparative chronology of integration activities for the creation of a common scientific and technological space of the CIS-states (1991-2001). Problemy uprayleniya. 2003. No. 1. P. 33-40.

²⁶ See, for example: Morozov I. Post-Soviet economic space: historical view. Theoretical and practical issues of management. 2013. No. 2. P. 40-48.

²⁷ See, for example: Strezhneva M.V. European Union and the CIS: Comparative analysis of institutions. Moscow: Moscow Public Science Foundation, 1999; Sheleg N.S., Yenin Yu.I. Formation of regional integration associations in the post-Soviet space. Moscow: the Permanent Committee of the Union State, 2003; Illustrated history of the Union State. Moscow: Rossiyskaya Gazeta, 2004; Shumskiy N.N. Regional economic associations of the post-Soviet states: organizational and legal support of integration process. Minsk: Belaruskaya navuka, 2010.

them from the spaces of other types²⁸, and which is aimed at creating a scientific classification of integration spaces²⁹;

- 4) the doctrine of the structure of integration space (the contents of this section cover the issues dealing with structuration of various integration spaces³⁰, their parameterization and measurement using different classification and webometric criteria³¹, and also revealing the peculiarities of its architectonics³²);
- 5) the doctrine of the mechanisms of interaction between different types of integration spaces (at present, two types of such mechanisms have been identified and described: the horizontal, or network mechanism of integration spaces interaction and the vertical or hierarchical mechanism of interaction of such spaces³³);
- 6) the integration prognostics, in the framework of which the three main areas are developed: a) development, improvement, and optimization of using already existing

integration spaces of different types³⁴; b) designing new types of integration spaces³⁵; c) detection of integration tendencies and megatrends and their extrapolation to the future development of integration processes³⁶.

In the future it is possible to define other sections in the structure of the considered theory of integration spaces formation (such as a methodology for integration research, integration ethics, integration statistics, etc.). Currently, however, the empirical data is not sufficient enough for giving the abovementioned sections the status of independent structural units. As for the branches of the integration spaces formation theory that have already obtained this status in our study, the last section (integration prognostics) is the least developed of them; and such sphere as the design of new types of spaces was the least studied among the areas developed within its framework. Although the practice of designing spaces that was very successful in some historical periods was implemented even in the USSR, which has to be admitted by modern critics of the 'Soviet civilization': "It is the construction of space that first promoted the true triumph of the USSR, but then facilitated the collapse of

²⁸ See, for example: Dedkov S.M., Shcherbin V.K. Integration spaces: reasons for formation; specifics; the major classes. The Union State in the context of world integration processes: scientific materials of the Inter-Academic Council on the Issues of Development of the Union State. Vol. 2. Ed. by S.M. Dedkov, V.K. Yegorov. Minsk: The Centre for System Analysis and Strategic Research of the NAS of Belarus, 2011. P. 8-22.

²⁹ See, for example: Shcherbin V.K. Typology of integration spaces in the aspect of content-analysis. Language and space: problems of ontology and epistemology: monograph. Ed. by A. E. Levitskiy, S.I. Potapenko. Nizhyn: Publishing house of Nizhyn Gogol State University, 2011. P. 130-174.

³⁰ See, for example: Zevin L. Structuring of the economic space of the CIS. Svobodnaya mysl. 2004. No. 11. P. 124-135; Lysenko V. Territorial aspects of structuring social space. Sotsialno-gumanitarniye znaniya. 2010. No. 6. P. 253-262, etc.

³¹ See, for example: Melnikov V.A. Metrization of economic space. Ekonomika i proizvodstvo. 2004. No. 2. P. 4-6; Isakova N.B. Webification of innovation space and technology transfer. Problemy nauki (Kyiv). 2009. No. 10. P. 2-5.

³² Geyets V.M. Post-crisis architectonics of the European economic space. The world of transformations. 2011. No. 1. P. 137-151.

³³ Report on the research work "The theory of the formation of integration spaces of different types and mechanisms of their interaction" Academic advisor S.M. Dedkov. Minsk: The Centre for System Analysis and Strategic Research of the NAS of Belarus, 2013. P. 61-73 (manuscript copyright).

³⁴ See, for example: Nedilko V.I. Problems and prospects of reconstruction of a common scientific and technological space of the CIS. Vestnik of the Foundation for Fundamental Research. 1997. No. 2. P. 33-38; Burnyasheva L.A. Problems of renovation of spiritual space in contemporary Russia. Sotsialno-gumanitarniye znaniya. 2010. No. 5. P. 265-273; Nevostruyeva A.F. Development of the social nature of information and communication space at the present stage. Vlast. 2013. No. 2. P. 38-42.

³⁵ See, for example: Krasina O. Construction of transnational space as a theoretical and methodological problem in the modern theory of world politics. Vlast. 2010. No. 11. P. 69-74; Rogozin D.M. How to design a social space by contingent valuation method. Sociological journal. 2010. No. 4. P. 169-173.

³⁶ See, for example: Shmelev V.V. Developing countries: tendencies and contradictions of economic integration. Moscow: Mysl, 1979; Integrative tendencies in the modern world and social progress. Ed. by M. A. Rozov. Moscow: Publishing house of Moscow University, 1989; Bakushev V.V. Integration trends in the policy of the leading international organizations and the new Russia. Moscow: Russian Academy of State Service under the President of the Russian Federation, 1997.

this structure: the USSR authorities were not growing space, they were 'making' it³⁷. Due to the above reasons, the study of the main theoretical problems of designing new types of integration spaces was elected the main topic of this article.

3. Creation of new types of integration spaces as the practice of cultural engineering

Despite the lack of theoretical development of the above directions of integration forecasting in the CIS countries, international practice has a long-term tradition of designing new types of spaces. In particular, the Austrian theorist of 'information anti-globalism' K. Becker wrote about this activity of European scientists the following: "The traditional practice of cultural engineering consists in creating cultural memory and establishing a nominal order through the establishment of mental and ideological spaces; symbolic scenarios generate reality through mediating an implicit political narrative and logic... Abundant evidence of fictitious cultural reconstruction can be found already in the Middle Ages... In retrospect, the whole empires may be the fruit of cultural engineering. Moreover, such writers as Martin Bernal, the author of *The Fabrication of Ancient* Greece, clearly showed how deeply cultural propaganda and historical disinformation are integrated into the work of European scientists. To support the ideological hegemony of certain European elites on the basis of racist ideas and hidden political interests, the entire historical scenarios were framed up and cultural links were broken"38.

However, if earlier the political ambitions of ruling elites of some European countries were a stimulus to the cultural engineering of new types of spaces (mental, ideological, etc.), then at the end of the 20th century the main reason for this engineering could be found in economic and political imperatives of globalisation: 'Spaces' appear in political practice, when the territories are divided and the countries have to switch from extensive to intensive development of territories, ways and forms of their use. Another important reason for the emergence of 'spaces' lies in the fact that more and more types of activity, forms of ownership are going beyond national borders. The main problem is not that the government loses something (taxes, control, etc.), although such losses may happen to a certain extent. The more important fact is that the degree of predictability of the country's economic situation is reduced (especially in the medium and long term), as well as the ability of the government to implement sustained programmes for socio-economic development; the internal sphere of the country becomes vulnerable to external influences (spontaneous and often targeted); and the type of activity – the industry, the sphere etc. can't be monitored and directed comprehensively"³⁹.

In particular, according to the observations of domestic science theorists, large-scale integration of Russia's leading scientific organizations in the world market space shows that it is not Russia that becomes the main owner of the scientific product created by these organizations: "Integration of Russian scientific organizations in the financial 'metabolism' of Western capital (public or private) has a very real prospect of turning the domestic science into a branch of foreign companies. Ironically, the cherished dream of many of our scientists and science managers to make Russia a kind of laboratory for producing and selling fundamental knowledge in the international division of labour becomes clearly tangible today.

³⁷ Kaganskiy V.L. Russia – the USSR today? A comparative portrait of spaces. Article 3. The Russian Federation and Russian space. Obshchestvenniye nauki i sovremennost. 2005. No. 4. P. 100.

³⁸ Becker K. Tactical Reality Dictionary: cultural intelligence and social control: translated from English. Moscow: Ultra. Kultura, 2004. P. 15, 17-18.

³⁹ Transnational political spaces: phenomenon and practice. Executive Editor M.S. Strezhneva. Moscow: Publishing house "Ves mir", 2011. P. 25.

It's just that in such circumstances our country will lose whatever has been left of the opportunities to conduct an independent policy in the sphere of science and technology. Russia's scientific community increasingly produces the knowledge ordered by foreign companies for implementing their existing technologies and products rather than the knowledge which is necessary for the country itself"40. Moreover, the calculations of Russian economists show that while domestic scientific organizations and individual scientists make their products available in the world market, Russia annually loses 600 - 700 million US dollars, because domestic scientists use their own equipment for executing the orders of foreign investors; as a result, the self cost of the works performed is higher than the amount paid to them by foreign customers⁴¹.

By the way, foreign investors in Belarus prefer to finance those science-intensive sectors (e.g. offshore programming), which require the least expenditure on equipment and ensure a minimal risk for investors: "Certain success of Belarusian programmers is explained quite simply. On the one hand, we have quite good and cheap 'brains', on the other – it is not necessary to import a large amount of equipment in this case. The main assets, i.e. intellectual property and profit are left abroad. And in Belarus there are only rooms and programmers, a cheap workforce by Western standards. Accordingly, the risk for the investor is minimal. Chipsets manufacturers are in much worse conditions. They have to build premises and install expensive equipment on the production site. And investors won't spend much money on costly equipment without having firm guarantees"⁴².

According to V.M. Geyets, Academician of the NAS of Ukraine, the numerous financial benefits obtained by foreign investors as a result of using domestic scientific, educational, intellectual and other spaces of the CIS countries, will be the main reason for drastic changes in the expansionist policy of the European Union, which will soon change its policy of direct territorial expansion to the East and move to the practice of large-scale construction of new types of integration spaces with the involvement of scientists and scienceintensive business of the CIS states: "Further EU enlargement to the East, under the previous ideology of the Union's formation through the admission of new members, even such as Turkey and/or Ukraine, will lead to escalation of tension in the internal, foreign political, economic, social and cultural aspects and to the emergence of new factors of destabilization in the EU and in the globalizing world.

That's why the expansion to the East must be aimed at not so much as receiving the membership, but at allocating separate areas (sectors), in the framework of which the coordinated actions will to some extent be similar to the conditions of formation of the European Coal and Steel Community. At that time cross-border mergers and acquisitions will become the dominant transactions, which will be lobbied at the government level in the interests of their countries, but they will increasingly promote the creation of the single market by overcoming economic differences"⁴³.

Russian researchers name other reasons why the West is constructing new types of spaces instead of traditionally used military annexation of territories and resources: "The new military strongarm territorial division of the world is quite possible.

⁴⁰ Vaganov A.G. Western investments and structure of Russian science. Naukovedeniye. 2001. No. 3. P. 86.

⁴¹ Ushkalov I.G., Malakha I.A. Interstate migration of scientific personnel and the problems of development of scientific and technological potential of Russia. Naukovedeniye. 1999. No. 1. P. 34.

 $^{^{\}rm 42}\,$ Balykin S. Integral is being prepared for sale. Director. 2008. No. 1. P. 21.

⁴³ Geyets V.M. Post-crisis architectonics of the European economic space. The world of transformations. 2011. No. 1. P. 148.

However, today's war is a costly issue, disruptive to the social and natural environment; and besides, it is officially condemned morally and politically in accordance with the UN Charter. In conditions of globalization a greater importance is attached to the possibility of practical use of a territory and/or its resources, rather than to their possession, because such possession for various reasons (costs of distances, taxes, social responsibility to local communities, etc.) can be a burden. Space as a phenomenon provides an answer to all of the above. It provides the way out of the seemingly insurmountable dichotomy 'formal – informal' through the principal opportunity to combine an officially recognized (and therefore a formal) validity of socially demanded diversity of actual (and therefore, informal) relations"44.

The rapid development of information technologies (virtual networks, the Internet, etc.) highly contributed to the mass establishment of such informal relations between foreign customers and domestic scientists. According to O.V. Krasina, "the virtual multinational networks are being especially developed in the sphere of economy and scientific-technological cooperation, for example, the EU project cordis.eu, in the framework of which it is possible to develop contacts not only at the level of individual researchers or entrepreneurs, but also at the level of organizations (universities, business startup companies, business corporations, etc.). This trend indicates the extension in the measurement of transnational space, since an individual doesn't need to cross the border in the physical aspect to be included in the transnational activity, and, remaining, in fact, in his/her original cultural environment, the individual becomes a kind of 'citizen of the world', where the only deterrent factor in his/ her participation in transnational interactions becomes the availability of leisure time (in the situation, when such activity isn't a job or a source of income) and the presence of language and cultural barriers that impede communication by certain socio-cultural contexts"⁴⁵.

For example, the EU at its highest level handles the issues concerning the creation of organizational and financial capabilities for using the creative potential of researchers of the CIS for the purposes of Western corporations. In particular, A. Mitsos, the Head of the Directorate General for Research of the European Commission says the following on the subject: "A few years ago the EU launched a new initiative, and we hope that in the near future it will be transformed into a more tangible goal at the state level. It relates to the full opening of frontiers for science and enhancing international cooperation between the EU and its Eastern and southern neighbours, which are not part of the EU, and developing countries. How can we provide the best researchers in all parts of Europe, not only in the EU, with an opportunity to use their potential to the fullest? This can be done only through cooperation, finding such scientists and creating appropriate infrastructure environment for them"46.

The research of domestic science theorists show how successfully the European Union is creating this infrastructure for the needs of scientists from the former USSR countries: "According to the results of a research project carried out at G.M. Dobrov Centre for Scientific and Technological Potential and Science History Studies of the National Academy of Sciences of Ukraine, more than half of the institutes had contracts with foreign customers.

⁴⁴ Transnational political spaces: phenomenon and practice. Executive Editor M.S. Strezhneva. Moscow: Publishing house "Ves mir", 2011. P. 24.

⁴⁵ Krasina O. Construction of transnational space as a theoretical and methodological problem in the modern theory of world politics. Vlast. 2010. No. 11. P. 71.

 $^{^{46}}$ Mitsos A. European strategy for the movement towards knowledge-based economy and society. Knowledge-based society: new challenges for science and scientists: Materials of the international conference (Kyiv, 23-27 November 2005). Kyiv: Phoenix, 2006. P. 53-54.

On average, an institute has seven contracts, according to which the scientists work abroad, and five foreign contracts, according to which the scientists work in Ukraine⁴⁷. Moreover, "the authors sent the most important publications abroad (this trend has already been observed in a number of research areas)"⁴⁸. The latter is largely facilitated by the fact that all the expenses on the prompt publication of scientific books and articles of the post-Soviet scientists are usually effected by Western European publishers. While at home, these scientists wait years for their turn to publish their research results; moreover they often have to pay for these publications on their own.

The above reasons led to the fact that post-Soviet science now has an actual tendency of 'brain drain' to Western countries, as well as the 'leak of knowledge', obtained in the framework of scientific programmes and individual projects funded by the CIS. The Ukrainian scientific theorists V.I. Onopriyenko and M.V. Onopriyenko point out that "among domestic scientists there are many of those who, staying in their homeland in their institutions, execute the orders of foreign science centres and companies, having been engaged in international Internet communications.

This process increasingly replaces the notorious 'brain drain' and goes far beyond it. Using obsolete domestic scientific equipment, these scholars, nevertheless, obtain the results that satisfy Western manufacturers and pass these results directly to the customers. As a rule, these products have low added value. Consequently, the tendency of transformation of our countries into mere suppliers of raw materials to developed countries is carried out

not only through the market, but also through scientific systems using the networking tools"⁴⁹.

In our opinion, to stop these negative processes and trends in post-Soviet science, the Commonwealth states should actively construct new types of research spaces on their own, and also implement the relevant infrastructure projects more often in the interests of national science. In particular, the President of the Republic of Belarus A.G. Lukashenko proposed to establish a High-Tech Park (HTP), modelled after the famous Silicon Valley. The strategic aim of this project was to create "a unique and favourable environment for the development of high technologies" in Belarus, a kind of analogue of the U.S. Silicon Valley, where the combination of economic, social and legal environment will exceed the present-day level achieved by the world community"50. Today HTP is one of the leaders of Belarusian innovation sphere: "By the end of last year, the incomes of the Park have reached a billion dollars. In 2012 six HTP companies were included in the list of top IT service providers in the world. 2.5 thousand new jobs were created here; the Park has about 14.5 thousand specialists in the field of information technologies. About a half of the resident companies of the Park are foreign firms and joint ventures. Over a half of the residents are engaged in the production of their own software. All this allowed Belarus to enter the top 30 countries with the most developed sphere of offshore programming, according to the Gartner analysts. Besides, the High-Tech Park is now among the largest IT-clusters in the countries of Central and Eastern Europe"51.

⁴⁷ Isakova N.B. Webification of innovation space and technology transfer. Problemy nauki (Kyiv). 2009. No. 10. P.4.

⁴⁸ Malitskiy B.A. How to evaluate the credibility of scientific achievements. Science and Science of Science. 2012. No. 3. P. 163.

⁴⁹ Onopriyenko V.I., Onopriyenko M.V. The Internet galaxy and science in the globalizing world. Science and Science of Science. 2008. No. 1. P. 168.

⁵⁰ The Address of the President of The Republic of Belarus Alexander Lukashenko to the Parliament. Available at: www. president.gov.by/press 29160.html.

⁵¹ Tsepkalo V., Starzhinskiy V., Pavlova O. Leading cluster of IT-industry. The science and innovations. 2013. No. 4. P. 53.

Unlike the above innovation infrastructure project carried out in the 2000s, the Belarusian-Russian programmes "SKIF" and "SKIF-GRID" contributed essentially to the formation of a new type of integration space, because they created optimal conditions for a long-term joint work of Belarusian and Russian specialists in the field of designing supercomputers. According to L.B. Vardomskiy and A.V. Shurubovich, the realization of these and a number of other scientific programmes of the Union State of Russia and Belarus "made a considerable contribution to the development of the relevant branches of economy, science and technology of the Russian Federation and the Republic of Belarus. In particular, in the framework of the programmes "SKIF" and "SKIF-GRID" for the creation and introduction of supercomputers, 19 prototypes of advanced supercomputers "SKIF" series 1.2.3 have already been constructed. Five supercomputers "SKIF" were included in the global Top500 rating of most powerful computers. From 2002 to 2009, the performance of supercomputers "SKIF" increased from 0.423 to 60 trillion flops"52.

Another new integration space was formed by the efforts of Belarusian and Russian scientists and manufacturers in the field of diesel automobile construction. Its development programmes "were implemented by about 20 leading automobile enterprises of Russia and Belarus, mass production of automobiles was established, in compliance with international modern and perspective standards of ecology, economy, security and reliability Euro-2, Euro-3 and Euro-4. By the end of 2008,

the enterprises participating in the programme have produced 34296 trucks and 44773 diesel engines of Euro-3 standard; in subsequent years it is planned to shift to the industrial production of Euro-4 standard"⁵³.

The above examples of implementing major infrastructure projects and designing new types of research spaces in the framework of the Union State of Russia and Belarus represent only a small part of existing spaces and projects: "According to the initiative of the Scientific Council under the Executive Committee of the Union of Belarus and Russia and with the participation of the Ministry of Science of Russia, the State Committee for Science and Technology of the Republic of Belarus (SCST RB), the Russian Academy of Sciences (RAS), the National Academy of Sciences of Belarus (NAS of Belarus) and a wide range of scientific community, the Programme for the formation of common scientific and technological space of Belarus and Russia is being developed and implemented, the main common priorities for science and technology have been identified. A number of joint projects and programmes (over 30 in the framework of the Union in the fields of space technology, supercomputers, laser technology, biotechnology, agriculture, medicine, resource-saving technologies, etc.) have been worked out, agreed and are now being implemented"54.

In our opinion, Russian and Belarusian scientists should carry on their research and achieve more. It is necessary to create new integration spaces in all the key directions of natural, technical and humanitarian sciences, developed by researchers of the two countries. The mass creation of such research spaces is

⁵² Vardomskiy L.B., Shurubovich A.V. Post-Soviet integration projects as a factor in modernization of the CIS economies. Integration of science as a factor in the construction of the Union State: scientific materials of the Inter-Academic Council on the problems of development of the Union State. Vol. 3. Ed. by S.M. Dedkov, V.K Yegorov. Minsk: Centre for System Analysis and Strategic Research of the NAS of Belarus, 2011. P. 31.

⁵³ Ibidem.

⁵⁴ P.A. Vityaz – path in science. Ed. by O.V. Roman, A.F. Ilyushchenko, S.P. Vityaz. Minsk: Belorusskaya nauka, 2006. 89.

quite a solvable task, since, as international experience shows, "it's rather easy to construct a morphological space for any explicit scientific and technological sphere"⁵⁵. The problem can be solved by using scientific-organizational, and purely political means and methods.

However, one should bear in mind that there are exclusively scientific rules and requirements in such research spaces: "All scientific statements, without exceptions, are based on a number of initial assumptions and therefore they are relevant only in a space bounded by these assumptions, sometimes multiple and difficult to observe" 56. In other words, "the field of science can be defined as a relatively autonomous space with its own specific objectives and rates, among which the main ones are the accumulation of rational empirically grounded knowledge" 57.

This specifics and autonomy of scientific spaces does not mean that scientists are indifferent to the broad integration processes that are going on in the post-Soviet states. Discussing the role of the intelligentsia in the unification of the Russian space, V.L. Kaganskiy quite fairly, in our opinion, notes the following: "The federal government should ensure the unity of norms and the unity of the country's space, but not all the social groups of population, irrespective of their welfare, need a uniform coherent permeable space with uniform standards. This space is really necessary for those, who are disparagingly called 'public sector employees'. This is almost the only group that really needs a unified country with common rules... 'Federal intellectuals' can integrate the territory of the state and control regional elites 'from below' much more efficiently than power verticals"58.

The leadership of the Union State of Russia and Belarus should consider the domestic scientific intellectuals as its main allies in the unification of the territories, economies, policy and culture of the two countries. Anyway, so does the leadership of the EU, actively supporting the process of construction of the European research space: "The formation of the European research area is a crucial step in the political and governmental integration of Europe for the political elite and the EU bureaucracy. Not in the least this means gaining control over large (tens of billions of euros) financial flows, which is another step of the transformation of the EU bureaucracy into the real executive power body. Neither politicians nor the EU officials actually imagine what a world scientific leadership of Europe is, but they are ready to support the implementation of this idea with resources in order to attract scientific elite on their side in the confrontation with national bureaucracies"59.

In conclusion we consider it necessary to draw the readers' attention once again to the problems of constructing new types of knowledge-based integration spaces in the framework of the Union State. In our opinion, only by creating numerous research spaces and providing support to scientists, who are the main manufacturers of a key economic resource of modernity (scientific knowledge), "it will be possible to establish a civilization, oriented toward creating new wealth rather than fighting for the riches of others" 60.

⁵⁵ Ayres R. Technological forecasting and long-range planning. Translated from English. Moscow: Mir, 1971. P.113.

⁵⁶ Kustarev A. Science and politics. Neprikosnovenniy zapas. 2008. No. 6. P. 6.

⁵⁷ Shmatko N.A. Horizons of socio-analysis. Socio-analysis of Pierre Bourdieu. Moscow: Institute of experimental sociology; Saint Petersburg: Aleteya, 2001. P. 37.

⁵⁸ Kaganskiy V.L. Russia – the USSR today? A comparative portrait of spaces. Article 3. The Russian Federation and Russian space. Obshchestvenniye nauki i sovremennost. 2005. No. 4. P. 102.

⁵⁹ Mirskiy E.M., Barbotko L.M., Borisov V.V. Scientific policy of the 21st century: trends, policies and mechanisms. Available at: www.courier.com.ru/top/cras.htm.

⁶⁰ Selye H. From dream to discovery: On being a scientist. Translated from English. Moscow: Progress, 1987. P. 150.

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