POST-SOVIET TRANSFORMATION

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Development Paradigm for the Post-Communist Countries in Higher Education and Political Science*

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The article explores the development of political science and higher education in Post-Communist countries. Comparative analysis of the conditions necessary for the creation of contemporary research universities, as well as the human and financial resources of these countries shows that in Post-Communist countries it is almost impossible to form such universities especially in the social sciences. However, the implementation of the paradigm, suggested in the article, will provide an opportunity to overcome the complicated situation, conditioned by scarce human and financial resources.

Keywords
Post-Communist Countries, democratisation, political science, higher education, paradigm.

After the collapse of the USSR, assessments regarding the development of post-Soviet countries during the early of 1990's of the former century were highly optimistic. They were viewed within the framework of the third wave of democratisation and it was assumed that democratic regimes would be established in all post-Communist countries[1]. However, further developments demonstrated the existence of an

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[1] **Huntington S.** The Third Wave: Democratization in the Late Twentieth Century. Norman and London, University of Oklahoma Press. 1991.

unprecedented and an extremely complicated process resultant from all systems (political, economic, scientific, educational, social, etc.) being destroyed. Those countries appeared in a systemic crisis, and a system transformation of social relations was required.[2] The problem was further complicated by the circumstance that the values, knowledge and experience that were in the basis of the previous systems had become useless. Since the Communist ideology rejected pluralism, post-Communist societies did not have the knowledge and experience necessary for the formation of new systems and had to form systems quite unfamiliar to them. Therefore, the successful realisation of post-Communist transformation required efficient combination of two processes: formation of new systems and appropriation of new knowledge. Obviously, during the solution of such a complex task, the system of education and science receive a system-building mission. Not only does the quality of science and education but also the efficiency of processes taking place in other spheres depend on the outcome of the ongoing reforms in this system, because professionals – based on whose knowledge and skills reforms in other areas are developed and applied – are to be raised in the scientific-educational field. Therefore, the most challenging problem referred to the interrelated spheres of science and higher education. It had a two-fold essence. First, structural transformation of these spheres was required, making them compatible to Western institutions and processes because in the USSR, scientific and educational systems principally differed from the Western systems. This means that while the spheres of exact sciences were able to be confined to structural and procedural transformation, the sphere of social sciences also required content transformation because in Soviet years, for ideological reasons, representatives of those spheres did not have access to the Western systems, theories and studies. Therefore, the problems existing in the spheres of education and social sciences not only hinder the development of those spheres but also seriously complicate the solution to problems in other spheres. A closed vicious circle has emerged. The extreme shortage of professionals in the sphere of social sciences in post-Communist countries (along with a few other factors, which will be expressed below) does not afford an opportunity to ensure high-quality higher education in that sphere, which in its turn, does not give a chance of preparing highly qualified

[2] **Torosyan T.,** Post-Soviet Transformation of Social System, Yerevan, 'Tigran Mets' Publising Hous, 2006. (in Armenian)

specialists of the required number to ensure the development of both social sciences (in particular, political science) and the country. At the same time, the flawed economic situation in those countries, and, consequent financial restraint, do not afford opportunity to involve highly qualified foreign professionals of the required number. When solving such complex issues, the cooperation and integration with the societies and institutions that have the necessary experience and knowledge gain exceptional importance.[3] In this regard, the integration in the European Higher Education Area and the participation in the Bologna Process are of key importance for post-Communist countries.

Bologna Process as an External Dimension of Higher Education Systems Reforms in Post-Comunist Countries

Although, the Bologna Process was founded for increasing the efficiency of the European higher education area – which has proven its viability – and in order to face the challenges under the conditions of globalisation, the process also creates ample opportunities for countries that face challenges stemming from post-Communist transformation. It is no coincidence that, when adopting the Bologna Declaration, the founders stated that "the importance of education and educational cooperation in the development and strengthening of stable, peaceful and democratic societies is universally acknowledged as paramount, the more so in view of the situation in South East Europe"[4]. There is a group among those countries, where the aforementioned highly complex process was accompanied by conflicts, and often – by armed clashes, in which conditions the establishment and the development of limited opportunities were even more confined by almost insurmountable difficulties of international cooperation. Meanwhile, according to the Geneva Declaration of International Conference on Education (1994), "solidarity, civic responsibility, the formation of values and skills to resolve conflicts through non-violent means

[3] **Torosyan T., Sukiasyan H.,** Three Stages, Three Groups and Tree Paradigms of Post-Soviet Transformation, *Armenian Journal of Political Science*, 1, 2014, pp. 51-62.

[4] The Bologna Declaration of 19 June 1999, Joint declaration of the European Ministers of Education, Available at http://www.ehea.info/Uploads/Declarations/BOLOGNA_Declaration1.pdf , (14.04.2014)

should shape the content of education. Moreover, great attention should be paid to the maintenance of peace between peoples, the settlement of various conflicts, the abolition of their causes and consequences".[5] Therefore, the efficiency of post-Communist transformation in post-conflict countries not only conditions the statehood, but also plays an important role in process of conflict resolution. In the sphere of higher education in those countries, both institutional and substantive reforms should be carried out simultaneously. Modern approaches and principles of higher educational organisation and development – the implementation of which the Bologna Process aims for – should be included in the context of the institutional component. Institutional component of these reforms includes contemporary approaches and principles of the higher education organisation, implementation of which are a goal of the Bologna Process.

Bologna Process and the Peculiarities and Limitations to their Application in Post-Conflict Countries

At first glance, the institutional reforms in the framework of the Bologna Process are merely an attempt to face challenges resulting from globalisation, by means of ensuring compatibility and uniformity of European education systems and formation of a single European Higher Education Area[6]. The proposed mechanisms – the credit system, the compatibility of degrees, the mobility of students and lecturers, the European cooperation for ensuring quality, etc. – seem to be merely technical means, but the process is actually a civilisational programme. As recorded in the declaration, it is based on the "realisation of common values and belonging to a common social and cultural space"[7]. It is noteworthy that the formation of the European Higher Education Area particularly depends on the "full respect of the diversity of cultures, languages, national education systems and of University autonomy"[8]. The abovementioned mechanisms can be effective in achieving the scheduled targets if applied in environments dominated by European values. The conditions for the Bologna Process

[5] Declaration of the 44th session of the International Conference on Education, Geneva, 1994, Para. 16
[6] The Bologna …
[7] Ibid
[8] Ibid

membership[9], set at the Ministerial Conference in London, 2007, affirm it. One of them is having had joined the European Cultural Convention, another one – being true to the principles, values and goals of the Bologna process. In fact, the first condition implies that membership is possible only for the member states of the Council of Europe.

Those are not merely technical requirements. From these requirements, directly or indirectly, three factors are derived, which must be taken into consideration by the parties wishing to participate in the process, in this case – post-conflict states. Firstly, the Council of Europe is a European structure based on clearly defined values of democracy, human rights and the rule of law, and the participation to the Bologna Process will be effective as long as the participating countries stay true to those values. Secondly, the process, creates a wide range of opportunities for having good results given their effective use, rather than ensures results. Therefore, the results depend first of all on the efforts of universities, as well as the educational policy applied. The third factor, derived from the first condition of membership and especially important for post-conflict countries, is that it is the UN member countries that can become members of the Bologna Process. It may seem that this circumstance, related to membership, makes it impossible for unrecognised states to take advantage of the opportunities of the Bologna Process. But certain peculiarities of the process allow benefiting from those opportunities under the condition that appropriate work is being carried out. Firstly, although, Nagorno-Karabakh, Kosovo, Abkhazia and South Ossetia are not internationally recognised countries yet, geographically and according to cultural standards they are part of the European Higher Education Area, which is evident from the list of the Bologna Process member states. In that Area, there should be no "white spots" or people discriminated against. According to the Universal Declaration of Human Rights[10] and the European Convention on Human Rights[11], the right to education is one of the fundamental human rights, and

[9] London Communiqué: Towards the European Higher Education Area: responding to challenges in a globalised world, 18 May, 2007. Avaliable at www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/MDC/London_Communique18May2007.pdf, (14.04.2014)

[10] The Universal Declaration of Human Rights, Available at http://www.un.org/en/documents/udhr , (12.04.2014)

[11] European Convention on Human Rights, Available at http://www.echr.coe.int/Documents/Convention_ENG.pdf , (12.04.2014)

its realisation is a practical way of achieving people's freedom and equality. It is noteworthy that the right to education is one of the norms of international law, not subject to any reservation. According to one of the fundamental documents of the international law, the International Covenant on Economic, Social and Cultural Rights (Article 13), "The states parties to the present Covenant recognise the right of everyone to education. Education shall enable all persons to participate effectively in a free society, promote understanding, tolerance and friendship among all nations and all ethnic or religious groups, and further the activities of the United Nations for the maintenance of peace"[12]. Obviously, it is about "everyone" and "all", without any reservation, and there cannot be reservations towards the citizens of UN non-member states. Respecting this norm is the duty of each UN member state, including member countries of the Bologna Process. If to take into account that according to the Convention against Discrimination in Education, "the adoption of international standards of educational organisation is an important achievement for the realisation of human rights"[13], it becomes clear that the citizens and educational institutions of unrecognised countries should not be left out of the Bologna process. Regarding the realisation of these rights, a lot of active, consistent and consolidated collaboration with a number of European organisations, that have education as their sphere of work, is required. Another peculiarity is the flexibility of the Bologna process concerning membership. Rejecting Kosovo's application for membership, already in 2007, the Bologna Secretariat mentioned that associated relations can be considered with a status of a "guest" or a "special observer"[14]. Indeed, one should not forget that, the Bologna Secretariat rejected the application of Northern Cyprus without making such proposal, and that when discussing political issues, the European Union considered Kosovo to be a special case[15]. However, there are two circumstances that allow post-conflict countries, not constituting a

[12]International Covenant on Economic, Social and Cultural Rights, Available at http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx , (15.04.2014)
[13]UN Convention against Discrimination in Education, Paris, 1960, Available at http://portal.unesco.org/en/ev.php-URL_ID=12949&URL_DO=DO_TOPIC&URL_SECTION=201.html , (15.04.2014)
[14]Application to join the Bologna process, BFUG11 7a. Available at http://www.docstoc.com/docs/21667840/APPLICATIONS-FOR-ACCESSION-TO-THE-BOLOGNA-PROCESS, (15.04.2014)
[15] Ibid.

part of the European Cultural Convention but that are in the European area of higher education, to get a special status in the Bologna Process. The first one is that the separation of Northern Cyprus occurred not through peaceful means but by the use of force. Kosovo, Nagorno-Karabakh and the other aforementioned countries have taken a completely different path. Specifically in professional circles, free from political speculations, the Kosovo and the Nagorno-Karabakh conflicts are viewed as a conflict for self-determination[16], as opposed to the Northern Cyprus case[17]. On the other hand, the Bologna Secretariat unalike political organisations cannot manifest such a politicised position regarding human rights and problems of education in particular. It should be added, however, that before requesting a special status in the relations with the Bologna process, the abovementioned countries should make serious efforts as an evidence for their commitment to the principles, values and goals of the process. In this sense, the Kosovo case can serve as a good example. Already in 1999, there was an inter-university cooperation between Kosovo and British universities, in particular with the University of Sheffield[18]. Moreover, it is noteworthy that it had begun in the field of political science. The second circumstance, indicating Kosovo's active stance, is the involvement of its several universities in TEMPUS programmes[19]. If such steps are combined with the application of principles, standards of mechanisms established by the Bologna process, post-conflict countries can make significant progress in integrating into the European Higher Education Area, which will be a serious argument for anticipating a special status. Thus, although there are significant peculiarities and challenges in post-conflict countries to fully join in the Bologna process, there are also serious opportunities to integrate into the European Higher Education Area, to use its results in favour of the establishment of statehood and as a contribution to the full resolution of conflicts. Nevertheless, it is clear, that for post-conflict as well as for other post-Soviet countries the external dimension, i.e. the inclusion in Bologna process, although is

[16] **Babbitt E. F.**, Rights-Based Conflicts: Making Self-Determination Negotiable. – *International Negotiation*, 2006, 11, 2, pp. 185-208.
[17] Accordance with International Law of the unilateral Declaration of Independence in Respect of Kosovo. ICJ Advisory Opinion, 22.07.2010
[18] **Bache I., and Taylor A.**, The politics of policy resistance: reconstructing higher education in Kosovo, Journal of Public Policy, 23 (3), pp. 279-300.
[19] Tempus projects in Kosovo, www.tempuskosovo.org, Available at (03.05.2014)

important, however it can be efficient only in case of fully fledged implementation of the abovementioned reforms, i.e. the internal dimension.

The implementation of the paradigm, suggested in the article, will provide an opportunity to overcome the complicated situation, conditioned by scarce human and financial resources.

Current Trends in Higher Education

Knowledge – which has recently been providing those who manage making use of it quickly and efficiently with basic competition privileges – is progressively becoming a pledge of a country's stable development.[20] The academic sphere – the science and education system, which is predominantly concentrated in universities – has gained such a comprehensive impact over economy and society that, during recent years, opinions have been actively expressed that humanity has entered a new development phase, called "academic capitalism"[21]. Moreover, research universities in particular excelled in efficiency, toward the perfection of which active steps have been taken over the recent decade not only in the Western Europe and North America[22], but also in Asia and Latin America[23]. Among them the Emerging Global Model (EGM) is most successful, the main characteristics of which include:

- EGM universities see their mission as transcending the boundaries of the nation-state, educating for global perspective and advancing the frontiers of knowledge worldwide,
- those institutions are increasingly more research intensive with the use of scientific methods,

[20] Building Knowledge Economies: Opportunities and Challenges for EU Accession Countries, N.Y. 2002.

[21] **Slaughter Sh., and Rhoades G.,** Academic Capitalism and the New Economy. Markets, State, and Higher Education. Baltimore and London. 2004.

[22] **Baker D.,** Mass Higher Education and the Super Research University: Symbiotic Trends and Future Scenarios, *Graduate Education 2020*, Washington, DC: Council of Graduate Schools, 2007; **Levin H.M., Jeong D. and Ou D.,** What is A World Class University? Presentation at the Comparative and International Education Society, Honolulu, 16 March. 2006.

[23] **Altbach P.G., and Balan J.,** (eds.) World Class Worldwide: Transforming Research Universities in Asia and Latin America, Baltimore, MD: Johns Hopkins University Press. 2007.

- faculty members, as producers of new knowledge, are assuming new roles, shifting from traditional independent patterns of inquiry to becoming members of team-oriented, cross disciplinary, and international partnerships, with research directed more often than before toward real-world problems,
- as the research enterprise is extremely costly, those universities are going beyond government support and student contributions to diversify their financial base with funding from corporations and private donors, competitive grants for technology innovation, and creation of for-profit businesses as spin-offs of research enterprises,
- new relationships are being created among universities, governments, and corporations to advance economic development and to produce knowledge for the social good,
- those universities are adopting worldwide recruitment strategies for students, faculty, and administrators,
- those institutions require greater internal complexity; they are directed toward the research of interdisciplinary issues, and integration of research elements in student training programmes,
- universities participate with international non-governmental organisations and multi-governmental organisations in support of collaborative research, student and faculty mobility, and validation of international stature.[24]

Research of the development end perspectives of EGM universities demonstrated, that success comes to those universities, in which:

- A scientific (*vs* a more humanistic) approach to the study of all things, particularly as applied to fields that are seen as directly related to social and economic progress, dominate the prestige hierarchy.
- Academic departments that embrace scientific methods to some degree, even in social sciences and humanities, are winners within individual universities.
- Nations or individuals with strong English language skills who can interact with western scholars, read western journals, and present

[24] **Mohrman K., Ma W., and Baker D.,** The Research University in Transition: The Emerging Global Model, *Higher Education Policy,* 2008*,* 21, pp. 5-27.

their research in English language publications have a significant advantage over their peers who cannot use English.

- Graduate education, where human capital formation (instruction and teaching) and knowledge production (research) are seen as complimentary rather than competitive, is easier to fit into the EGM compared with programs that demand difficult choices between these two fundamental goals of higher education.
- Disciplines that are seen as immediately useful/practical by the general public, government officials, and other decision makers are privileged over other fields. Faculty in these disciplines are often able to garner financial resources from society, thus enabling them to carry out substantial scholarly agendas greater than what can be mounted only with governmental and institutional support.
- To join the international marketplace of ideas, especially in science, requires acceptance of the methods, norms, and values of the universities in Western Europe and North America that dominate the system. The themes and subject areas of interest to leading scientists may not be relevant to universities at the periphery, yet involvement in world science means adherence to established research paradigms.[25]

The high quality of scientific research in EGM universities essentially increases the quality of instruction in training courses, which give upper-year undergraduates and masters opportunities for involvement in scientific research as professors' associates. The combination of scientific research and higher education in a single educational institution essentially increases quality and effectiveness of the study process, in addition to the financial means and personnel potentialities necessary for performing research.[26] However, the crisis in science and higher education is ongoing in the Post-Communist area[27], but also the sphere of social sciences in especially poor condition. Meanwhile, the strategic plans of the United States and other leading countries, as well as the reports of international

[25] **Altbach P.G., and Peterson P.M.,** (eds.) Higher Education in the New Century: Global Challenges and Innovative Ideas, Rotterdam: Sense Publishers. 2007.
[26]**Kochetkov G.B., and Supyan V.B.,** American Research Universities: A View from Russia, *USA*Canada,* 2009, 3, pp. 53-66. (in Russian)
[27] **Supyan V.B.,** Science and Education in the USA: the main Priorities in the Development of a "Knowledge Economy", *USA*Canada*, 2008, 3, pp. 23-34. (in Russian)

organisations, directly related[28] to the sphere, have continuously emphasised the importance of social and humanitarian sciences. Indeed, the emergent situation in the Post-Communist area stems from both objective and subjective causes.

Problem Solution Complications

Due to the extreme ideological polarisation of political science, economics, law, and several other social sciences in the USSR, the skills and knowledge, accumulated during the Soviet period, were not implemented in the new independent states. Moreover, old specialists in the discipline that continue having an effect often create the greatest obstacles toward formation of a new generation of scientists in that sphere. The case of political science seemed to be simpler because in the USSR it was recognised as science in 1989 only.[29] Previously, "scientific communism" was considered to be the theoretical basis for the solution of social, political problems. However, the sphere quickly underwent the influence of the representatives of scientific disciplines that were no longer required (Scientific Communism, History of the Party Communist of Soviet Union, etc.). Several other serious reasons existed behind the crisis of social sciences in the Post-Soviet area. The first reason was conditioned by the fact that in the social science discipline, there exists an extreme shortage of

[28] USA Strategy Plan 2009-2012 on Humanities. 2009.
International Social Science Council (2010), World Social Science Report 2010, Knowledge Divides (UNESCO), Available at www.unesdoc.unesco.org/images/0018/001883/188333.pdf, (05.05.2014)
Research Council for the Humanities, Arts and Social Sciences. Australia (2009). Strategic Plan 2009-2012.
Social Sciences and Humanities – An Overview (2008). Survey among Social Sciences and Humanities Researchers in Austria, Belgium, France, Germany, Israel, Netherlands, Poland, Sweden, United Kingdom and participant of EU FP 5 and 6, available at www.iccr-international.org/ssh-futures/literature.html
Social Sciences and Humanities Research Council (2006). Strategic Plan 2006-2011. Canada, available at www.dsp-psd.pwgsc.gc.ca/Collection/CR22-42-2006E.pdf
The Future of the Social Sciences and Humanities (2009). Final International Conference, 22-23 October, 2009, Brussels, Belgium, Available at www.iccr-international.org/...futures/.../2009-10-22_23-Programme.pdf , (06.05.2014)

[29] **Vorobyov D.M.,** Political Science in USSR: the Formation and Development of Scientific Community, *Polis,* 2004, 4, pp. 169-178. (in Russian)

professionals comparative to the demands of the times. This causes not only low science performance (monographs meeting international requirements, articles published in peer-reviewed journals, etc., are extremely scarce) even relating to problems of crucial importance to a country, but also a serious obstacle to the appropriate formation of university faculty members, and, therefore, an extremely limited opportunity to improve the situation through preparing new specialists. Second, while during the Soviet period, Western editions were only available to a select few professionals in the field [30], after the collapse of the USSR they were out of reach for many, because they understandably did not master the English language, in which the overwhelming majority of professional literature is published. Third, because of the sharp decline in living standards and the extremely low remuneration in the sphere of education and science, the discipline was no longer appealing to promising young people. Fourth, the renunciation of the Soviet education system and the transition to the Western system without thorough study of the latter brought forth the formation of the "Post-Soviet" education system as an inefficient hybrid of the abandoned old system and the non-mastered new one: in addition the formation of "endemic science", not privy to real science (non peer-reviewed articles, plagiarised dissertations, non-professional council and verifications etc.). This is un-coincidental for the Soviet and later Russian higher education system existed and continues existing apart from the European one.[31] Despite individual differences, this situation is typical of almost all countries in the Post-Soviet area. Moreover, unlike those countries, the positive influence of the reform of mechanisms regulating the sphere is obvious in Eastern and Central European countries that became EU members in 2004 (the Czech Republic, Poland, Hungary, Slovenia, Lithuania, Latvia, Estonia); however, content problems still remain.[32] The situation is also the same regarding another mechanism formerly a panacea during the first stage of Post-Soviet transformation. This refers to liberalisation and private sector development. Two decades of experience testifies that even if liberalisation and the

[30] **Chiva C.,** Political science in post-communist Romania, *European Political Science,*2007*,* 6, pp. 24-32.
[31] **O'Connor T.E.,** Russian Higher Education: in comparison USA, *Pro et Contra*, 2010, 3, pp. 72-80.
[32] **Galbraith K.,** Towards Quality Private Higher Education in Central and Eastern Europe *Higher Education in Europe*, 2003, XXVIII, 4, December, pp. 540-558.

creation of private universities were necessary and beneficial to the development of the scientific educational system,[33] the problem of ensuring high-quality higher education and research, which are of fundamental importance to countries of Post-Soviet transformation, remains unsolved.[34]

Problem Solution Possibilities

For the purpose of modernising education and science, T. O'Connor, who is well aware of American and Russian higher education systems, suggests first of all establishing a firm organisational bond between education and science, creating real research universities and transitioning to unified international standards, ensuring academic freedom.[35] Regarding the existing situation in Post-Communist countries, it is especially noteworthy that, according to Altbach and Balan[36], academic freedom is particularly important for forming a culture of political and social scientific research. At the same time, more often than other scientists, research university professors are welcome as "public intellectuals". Indeed, O'Connor's idea is quite logical: national research universities in the West are key driving factors of a country's and society's economic and social advancement[37], and the existence of such universities in Post-Communist countries will not only relieve the crisis in higher education and science offer sound solutions for overcoming other complicated problems. Still, the situation is not only the critical and in need of urgent settlement, but also the problem is multifactor and extremely complex. According to Chiva[38], the state of social sciences and, especially, political science in Post-Communist countries is conditioned by three factors:

- limited use of innovation methods in higher education and research programmes,
- insufficient state investments in education,
- insufficient funding for scientific research activity.

[33] **Karakhanyan, S., van Veen, K. and Bergen, T.,** Educational Policy Diffusion and Transfer: The Case of Armenia, *Higher Education Policy*, 2010, 24, pp. 53-83.
[34] **Galbraith K**., …
[35] **O'Connor T.E., …**
[36] **Altbach P.G., and Balan J., …**
[37] **O'Connor T.E., …**
[38] **Chiva C., …**

The first factor is conditioned by the extreme shortage of high-quality human resources in the field. Moreover, it is difficult to concentrate in the some university this small number of professionals that are well-aware of the educational and scientific programmes and procedures used in the best western universities. As for the second and third – financial factors – their elimination depends on even greater difficulties. In the Post-Soviet period, the financial support for science and education in all those countries was essentially eliminated. Later it grew, but research universities have always been expensive, and recent requirements of international rivalry create a new level of scientific research expenses which was unimaginable ten years ago. For example, according to D. Ward[39], the average annual budget of research universities is 1.5 billion US dollars. Still, even in the wealthiest countries the financing of high-quality programmes (in many disciplines) is a complicated issue.[40] It is even harder for post-Communist countries. This also refers to Russia, which stands out among those countries for its financial and economic means and potential. Only three research universities have been formed in that country: the Russian Economic School, the Independent University of Moscow, and the European University at St. Petersburg.[41] Moreover, in 2007, the latter encountered serious difficulties for political reasons.[42] It may seem that in Russia there is another possibility of problem solution, given the considerable private capital. Two similar attempts are known, when two Russian billionaires invested about 100 million dollars in two different universities but both projects failed.[43] Obviously the formation of research universities in the other countries possessing far more limited financial and economic means is practically impossible. International scholarship programmes (TEMPUS, ERASMUS MUNDUS, etc.) create greatly limited possibilities for that purpose also. That is why Mohrman suggests[44] that, in order to solve the difficult problem of ensuring international level education, poverty-stricken countries focus on one or more disciplines, developing strategic advantages and cooperation with other

[39] **Ward D.,** Universities as Global Institutions, Speech at the University of Manchester, 19 October, 2005.
[40] **Mohrman K., Ma W., and Baker D., …**
[41] **Guriev S.,** Research Universities in Russia, *Social Research*, 2009, 76, 2, Summer, pp. 771-728.
[42] Ibid.
[43] Ibid.
[44] **Mohrman K., Ma W., and Baker D., …**

universities. At the same time, she suggests solutions to the shortage of human resources, i.e. appropriate professionals. For instance, she points out the London School of Economics, Hong Kong, as well as a number of other high-achieving universities, having more than 80 per cent foreign professors, as well as many other universities, where their percentage is higher than 50. This gives an opportunity to accomplish instant modernisation and to increase the prestige of those universities. However, almost all such universities have evidently been formed in wealthy countries, while that path is practically unavailable to Post-Soviet countries, which have greatly limited financial means. Still, the idea, proposed by O'Connor, can be realised in those countries with limited resources, i.e. through the transformation of the problem.

There are well-known hard and multi-factor problem solving methods[45], according to which a problem should be divided into individual sub-problems that preserve the features of the problem. If this approach is implemented, the above-mentioned problem (creation of a research university) should be divided into problems of separate scientific disciplines (creation of research departments), observing their solutions separately, according to the level of preparedness of each to solve such difficult problems. This will afford an opportunity to implement a gradualist approach: first to form scientific educational "oases" – experimental chair-centres – meeting the demands of research universities, and after they are realised in a sufficient number of spheres to form research universities. Such a chair-centre will be a complete scientific educational complex, based on the university chair and the scientific centre, formed in the same university. The education programme should include all the degrees of higher education (Bachelor's, Master's, postgraduate PhD programmes), and should be realised through the department; the scientific programme should be that of the scientific centre (henceforth: Center). Their content interconnection should be ensured by scientists that are department professors and perform scientific activity in the Center. The "chair-center" format will afford an opportunity to find solutions to two main problems, conditioned by the

[45] **Torosyan T.,** The Methodology of Diagnostic of the Memory, *Problems of Electronics,* 1989, 12, pp. 101-109. (in Russian)

shortage of financial and human resources, because in that case the resources required will be essentially reduced.

In order to solve the problem of human resources, it is necessary – through the concentration of a country's potential – to form a creative core (locomotive) and personnel of professional quality, conducive to realising development programmes. The mission of the locomotive is – being well aware of up-to-date procedures, innovation methods, scientific and higher educational on programmes in leading universities – to plan comprehensive science and education programmes and to play a leading role in their organisation and realisation processes. Another prerequisite for the successful realisation of the project is the inclusion of the best Master's degree and PhD students in the programmes of the chair and the centre, continously improving the professional qualities of the personnel. It is also extremely important that both education and science programmes be realised in active cooperation with the best Western universities. As in many Post-Communist countries peer-reviewed scientific journals are not usually published, the publication of such a journal, also involving professionals from Western universities as authors and members in editorial board, can greatly contribute to the successful realisation of scientific programmes.

If the suggested approach is implemented, the solution to the problem of financial resources will be essentially facilitated. According to assessments, in a small country like Armenia, the founding and successful functioning of such a chair-centre will require roughly 500000 US dollars funding, in addition to current levels of funding. Obviously this can be ensured even by the smallest and most financially- restricted Post-Soviet countries. In those countries importance will be attached to the creation of research chair-centres in several directions, exceptionally relevant to the development of the country.

It should be noted that although the implementation of the gradualist approach essentially facilitates the solution to financial issues, as well as the creation of institutions and mechanisms, necessary for the activity of the personnel, it cannot automatically ensure solution to the problem of human resources. The existence of the creative core – the locomotive – is the principal pledge of the successful implementation of the approach.

Conclusion

The study of the specificities of problems in the spheres of science and Higher education and the difficulties of their solution in Post-Communist countries demonstrates that the following paradigm can be productive:

1. Although, over two decades, legislative, structural and procedural reforms in those spheres have had a beneficial effect and have been necessary, they could not have been sufficient for the full development of the spheres;
2. It is impossible to solve these problems without forming higher education and science centres meeting current demands, i.e. research universities. In terms of social sciences, especially political science, the problem is especially challenging for those countries;
3. Consequent of difficulties connected with financial resources and the involvement of high-quality human resources, the formation of research universities in those countries in the traditional manner is practically impossible;
4. The external dimension of the necessary reforms for post-Communist countries, i.e. the inclusion in Bologna Process, although is important; however it can be efficient only in case of fully fledged implementation of the abovementioned reforms, i.e. the internal dimension.
5. In those countries, in order to find a solution to problems in the spheres of science and education, as well as productive solutions to systemic transformation, a progressive gradualist approach can be implemented, first forming "research chair-centres" in separate fields, subsequently, as a result of their development and spread, forming research universities. If such a strategy is executed, limited financial means will be required during the first stage, and within the financial-capabilities of resource-poor countries;
6. In terms also of providing human resources, the gradualist approach creates opportunities for a solution. Nevertheless, the creation of the creative core – the Locomotive, well aware of up-to-date procedures, innovation methods and science and education programmes in leading universities, with a mission to elaborate complete scientific and educational programmes and to play a leading role in their organisation and realisation processes – is a prerequisite;

7. The inclusion of the best Master's degree and PhD students in the programmes of the chair and the centre, as well as the realisation of education and science programmes in active cooperation with the best Western universities serve as a prerequisite for the successful realisation of the project. The publication of a peer-reviewed scientific journal, also including professionals from leading Western universities as authors and members of editorial board, can contribute to the successful realisation of scientific and educational programmes.