

Institutional landscape and research policy for SSH in Russia

Vladimir Zavarukhin and Liudmila Pipiya

The Russian national report provides a survey of SSH institutional setting and organisation of SSH research funding and policy instruments (including evaluation of scientific capabilities) in Russia, as well as it contributes to the formulation of policy recommendations for the international cooperation with the European Union, NIS countries, and China. The report is prepared within GlobalSSH project – Special Support Action “Research Collaboration in the Social and Human Sciences between Europe, Russia, other CIS countries and China”, Contract No.028997 (CIT 6).

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1. Characteristics of modern trends of the SSH development in Russia from the Soviet time up to nowadays

Technocratic development of the civilization throughout XX century has put absolutely new global challenges and problems for the mankind.

One of the major problems is a discrepancy between the levels of development of the manpower and organisations of the society and the character of the economy formed in the modern world. First of all it is expressed in huge shortage of qualified experts all over the world. Active migration in the modern civilization and its characteristics do not solve the problem having a global character. It concerns equally business, science and education.

Another important problem is connected with a change in priorities in the world economy. The economy becomes less technocratic. Human and social technologies, ecology, and steady development are coming to the forefront. All countries turned out to some extent to be unprepared for this change in guiding lines.

All mentioned above concerns fully Russia too. However, the situation in this country has a number of specific features.

Russians had experienced a sharp transformation of the social and economic system, and it happened only 15 years ago. Therefore social communities have not been developed completely, compared to the Western countries. They are at a stage of formation and at the same time of a dynamic development.

Moreover, the business community as well as the science and education communities in Russia do not fully correspond to the modern realities. The development of the Russian business has one-sided character and reflects the development of a limited number of economic sectors. But it is well known that the more diversified is a community, the more stable and successful it is, as well as it is more prepared for a strategic cooperation with other communities inside or outside.

The mentioned above situation is directly related to both science and education in Russia. Because of a number of objective and subjective factors there exists a gap between the real needs of the society and the activity of representatives of these communities. In the Russian science and education a notable technocratic distortion is still kept. This distortion is not as harmless as it might seem. In many respects it became a reason for a serious crisis of the domestic science. In fact, science in the USSR was exclusively technocratic. At the same time, the Soviet science and education was to some extent "redundant" and had a noticeably smaller pragmatism compared with the West. However, that fact provided also some competitive advantage: huge amount of results in applied and basic research were accumulated and, in Russia, there was the Pleiad of scientists-encyclopaedists of the highest level. At that time when all administrative restrictions were taken away, it seemed to most Russian intellectuals that the remarkable knowledge, accumulated in this country, would lead the society to prosperity. However it had not happened. It became evident that disposing only technocratic knowledge was not enough. It is necessary to have available humanitarian technologies and effective social instruments which allow the society to transform correctly its knowledge into a resource of further dynamic development towards a new market model and provide partnership at a new stage of quality of social relations. The lack of such technologies and instruments is still a very serious problem for the Russian social and economic development.

Russia possesses large scientific and technological potential and advanced positions in basic science and in a number of priority areas of applied research and development. In the humanities Russia is also traditionally strong, but social studies for a long time were interpreted only from the point of view of the Marxist ideology, therefore their development went on in another way than in other countries of the world. As a result, a great number of unsolved problems have been accumulated in Russian Science and Technology (S&T) during the years of reforms and they still demand urgent and optimal solutions.

Presently, social sciences and humanities in Russia exist in qualitatively new economic, social and political conditions resulting from the unprecedented social and economic transformation of the last decade. Since the collapse of the former Soviet Union, the system of scholarship that had been successfully created during the Soviet times has significantly deteriorated. The state of the Russian SSH is influenced now with new factors of internal and global character: demographic gaps with a high extent of the extinction of population, formation of information society, the high level dependence on extractive industries, etc. Especially sharp is the crisis in the socio-economic and humanitarian education. Unlike natural science and technical disciplines which, even in conditions of social transformation keep a certain substantial nucleus, the socio-economic sciences and humanities are directly connected with a self-representation of the society in terms of its internal goals and its own place in the history. Therefore, the change in the self-identification of the state and society, occurred during last years, inevitably supposes some revolutionary changes in the scope of the social sciences and humanities and education. However, these changes develop slowly and difficultly and they are not always adequately realized and evaluated by the society. But the societies in transition, as unstable and developing systems, show their ability to generate new ideas, new structures, new movements, i.e. variants and alternatives for the development of public system, which are so necessary for the development of democracy, creation of institutes of civil society, development of corporate management, as well as for overcoming interethnic conflicts and for many other public problems which are topical today not only in Russia and NIS countries, but in the countries of the European Union as well.

One can find out, at least, two opposite assessments by Russian scientists of the modern state of the Russian SSH.

According to *the first one* (rather widespread and more often expressed by ministerial officials, heads of SSH faculties and chairs, leaders of research institutes and private firms, servicing commercial enterprises and political establishments) Russian SSH are on the rise. Their arguments in favour of this opinion are rather simple and correspond to a "linear" logic of extensive growth. In their opinion, SSH in all forms are everywhere and in large volumes. In Russian higher school more than hundred faculties teaching legions of certificated researchers in the field of SSH have been opened (by some estimations the number of graduates-sociologists, for example, makes about 8000 persons per year). The number of polls carried out on various themes is growing. Sociologists have become an inalienable part of many commercial and political projects, as well as of mass media. Book shelves of shops are filled by numerous textbooks on social studies; there are lots of sociological conferences held in all regions of Russia, etc. Quantitative characteristics of the process expressively testify to the well-being of the situation, dynamically developing from bad to good and to even better. The only problem from this point of view is still in yet insufficient financing of the government programmes of education and research in the field of SSH in particularly in the Russian Academy of Sciences.

Not challenging the purely quantitative characteristics of the process, we could mark that estimations belonging to those backing up the stated point of view practically completely ignore *the qualitative* content of the Russian research and educations in the field of SSH. The figures of extensive growth of SSH in Russia sometimes hide the absence of so convincing parameters of their qualitative upward development.

Tendencies of the development of the post-Soviet SSH are rather contradictory. For every seemingly positive progression there are some steps back. Gains in one direction give tangible losses in other directions. More likely it is a question of a certain *new condition of these sciences* combining rather contrast characteristics. Therefore there is no unambiguity in estimations, by definition. The reason for this condition can be naturally found in transformation trends of the modern Russian society making social sciences and the humanities confronted with serious trials. More often it is expressed by a universal formula: the quality of a society is transferred to both social sciences and the humanities.

Meanwhile, one can not deny that SSH bear a press of the surrounding social

environment. It is possible to mark out three main problems of the Russian reality which our modern sciences are facing.

– *Information shortage.* Social processes in Russia are more and more going in "shadow" creating only illusion of an information transparency of the society. Absence of the transparency and unwillingness to give objective information sharply constrict the field of applicability and, what is especially important, of the demands for social sciences.

– *Effect of constantly increasing delay.* Because of the fact that social dynamics in Russia exceeds the opportunities to study this dynamics there is a break between a real condition of the society and its scientific analysis. Stability of a pre-reform society was facilitating the opportunity of its studying and "photographing" by means of social sciences (though certainly at that time there were definite serious problems of the society in carrying out research). Modern social sciences in Russia, not possessing necessary resources, do not bring their potential to a level necessary for "catching" this dynamics. As a result, it is rather often when researchers create models of processes which have already moved forward a long time ago.

– *Criminal barrier.* Capillary criminalization of all spheres of the life of the Russian society has led in particular to a disappearance of those areas of research where there is a threat of a collision with criminality. As a result any phenomenon is studied using the so-called method "from this up to this" which constantly leads to an expansion of zones not allowed for scientists.

The specified factors affect the quality of education in SSH. At the same time it necessary to mark a substantial improvement in basic social characteristics influencing Russian SSH. In comparison with the Soviet epoch we have today non-disputable advantages including "four freedoms": freedom of planning and organising research; freedom of international communications and information exchanges; freedom of expressing any scientific idea and concept; freedom of using and gathering any information. However it should be added here that these freedoms have often rather potential character than actual one.

Except for the external freedom SSH are realized through a number of other conditions. They can be listed as follows.

– *Existence of scientific organizations and (or) large science groups.*

– *Presence of "live" and functioning scientific community* (at macro and micro levels) as social environment for creativity, as well as a social mechanism necessary for the improvement of quality and accumulation of scientific knowledge.

– *Development of a process of normal reproduction of research personnel.* It is not a secret that education in the field of SSH has a number of paradoxes, among which there are a rather low percentage of graduates working by speciality and at the same time growing numbers of graduated certified experts.

– *Presence of the internal social order,* i.e. of a demand for research on the part of the government, ministries and other executive bodies, economic and other organisations involved in the management in the economy and culture. It is especially important in the Russian society, traditionally focused on the Establishment. However the government finances the specified sciences, in accordance with a residual principle.

– *Demand from the society.* Another paradox in this connection is that the Russian society shows mainly its interest to vulgarized scientific results - for example to primitive marketing, instant polls on TV and radio, advertising, political PR and so forth. This society is hardly interested in deep diagnosis of the health of the society itself.

– *Developing network research contacts between research organisations inside the country and abroad.* At the same time, an excessive focus of social sciences and the humanities on their own problems, first of all on problems of their own survival, does not allow the emergence of valuable communicative "networks".

During last years new tendencies of interaction of SSH and the Russian society emerged. If during past years of reorganisation and post-reorganisation the importance of social and human knowledge was not put under question and the problem was only how better master and

develop it, now there is a certain nihilism with regard to the development of these sciences as a whole. One can often hear statements of politicians and journalists saying that social studies do not cope with their tasks for solving problems in Russia, they turned out to be ineffective and to some extent purely western sciences, not applicable for the Russian realities demanding special approaches and scientific techniques. These statements imply inability of social science to become a scientific compass in reforming Russia and consequently their direct responsibility for the serious social and humanitarian problems the Russian society faces with.

On the one hand, the nihilism in relation to prospects of the further development of SSH in Russia is expressed by those politicians, statesmen and businessmen who just never used high-grade scientific data, preferring to put their decisions into a sociological decor and who just aspire to create visibility of scientific character at the absence of internal system approach while analysing the social reality. They try now imposing a responsibility on social science in general and on representing them scientists who have not been involved at all in the decision-making process in key areas of the Russian society development.

On the other hand, it is impossible to deny the fact that modern SSH have become "excessive" for the purposes of reforming the society, which prefers to make simple decisions dictated by a pragmatic expediency of a current situation, but not by a complex analysis of multifactor situations in their perspective development. It seems that social sciences with their seemingly excessive complexity and obvious criticality in relation to imperious and corporate decisions become superfluous at this "holiday of life", where absolutely different motives and characters dominate. SSH scientists in modern Russia should play in accordance with the rules of large business and state structures, adapting themselves to their requirements, but at the same time in depths of their research (financed by corporations and governments) they should carry out their work, proceeding from high scientific principles and from a necessity of science itself but not a customer.

In this context it is important to notice that, from the point of view of the national, social and economic self-identification, Russia passes huge historical distances in few years and the country finds itself in a zone of severe problems lacking an experienced potential in their possible solution. Russian social sciences and the humanities which just have left "catacombs of the Soviet period" have found themselves straight away in the centre of market (or, sometimes, quasi-market) relations. The Russian market, including the market of scientific expertise and educational services, is more rigid, anti-intellectual and illegal compared with the stable societies in the West. Adapting to it often means that scientists have to leave forever their scientific principles relating to their profession. The destiny of many research and educational institutions and separate researchers, who decided to play under a double standard and forced to obey completely to business, proves this idea.

Rather new (or well forgotten) phenomenon in the Russian SSH becomes a willingness to put them into a grid of ideological coordinates. In Russia now there is no official ideology. However the attempts to generate it are expressed permanently in various forms. Hidden apologetics comes to the foreground in SSH too. *Many SSH scholars start acting as teachers of life and social preachers speaking on behalf of the whole society and well knowing how to develop Russia.* At the same time social constructivism, mentorship and dislike for concrete social analysis are combined with full misunderstanding of the necessity to develop an independent scientific expertise in all aspects of the social life. Sometimes it becomes difficult to distinguish borders of scientific and political discourse in SSH publications and educational programmes. Political pre-assignment starts prevailing over the real content of a scientific discussion, objective and independent.

So, for example, sociology is being attributed with absolutely not characteristic for its functions of managing social processes, a sort of social "dirigisme". It is especially surprising, as sociology itself opens for researchers boundless horizons of creative self-realization, which does not need external intellectual support. Moreover, it should be recognized that the richer the scientific content of sociology, more fully it can be demanded by the institutes of a democratic

society, including political, state and corporate ones. Otherwise sociology turns into a sort of an ideological department of a regional political party committee (so-called “obcom”), preparing reports for the bosses (what was in fact in the near history of Russia). Politicizing and dabbling in politics sociology is simply doomed to deterioration of its scientific potential, while supporters of such approach are taking risk of being outside the field of sociology. But they are not naturally going to recognize it, proclaiming themselves on the contrary “unique keepers of fire”. It is both a paradox and big problem, the meaning of which for the scientific community will be understood in the near future.

Besides the specified factors influencing the "health" of the Russian SSH and causing, at least, a concern of the scientific community, it is necessary to mention their relations with western sciences.

Initial orientation of the post-Soviet SSH on theoretical models, applied methods of research and educational programmes offered by the Western science have removed to some extent the barriers existed before between the Western and Russian scientific communities. Decisive steps towards the creation of a uniform theoretical and applied space of the international SSH have been made, where Russian scientists could show completely all their potential. However this openness to the West of rather weak and not self-determined Russian social science resulted in 1990s in some cases in non-critical adherence to the western matrixes in theory, education and applied research.

In Russian SSH, one can obviously see a phenomenon of their transformation into a peculiar mechanism of transferring knowledge made in the West into Russian social practice. This leads to a reduction in formulation of original theories and hypotheses. In Russia, they start using more and more tests and diagnostic procedures developed in the West. In international projects, during last years, Russia often represents itself as a supplier of initial scientific "raw material" (data of surveys, results of expeditions, new archival materials and so forth), while the production of scientific "product" itself is carried out somewhere in America or Western Europe. Like in the economy, the export potential of the Russian social sciences and humanities has yet a strongly expressed raw character. That turns the domestic SSH into a mechanism of translating knowledge acquired by foreign science into the domestic social practice where researchers are mainly engaged in application of foreign concepts to our social problems without taking into account the cultural frames of the place of their development.

At the same time, certainly, the SSH in Russia keep their originality. One should be aware of the nuances of the national social features and mentality of the Russian people. These features are shown in specificity of the approaches used by Russian science. So the specificity of Russian science is certainly preserved as regards its object and as well as for basic theories and methodologies. But all of these specificities are becoming smother and smoother. Russian science now is in fact not so different that of the West though one part of Russian scientists is mainly focused on the European approaches while the other – on the American ones.

Western influence (not the influence of the enlightened internationalization) was realized also through the policy of a number of international science foundations which gave financial support only to those research and educational programmes corresponding to the widely used unified schemes of the globalization of the intellectual process, ignoring local features. As a result, a circle of Russian grant recipients emerged around the Western funds operating in Russia. These recipients do not possess great scientific potential, but perfectly feel a thematic conjuncture. They are wandering from one programme to another with a considerable benefit for them. Educational programmes of many higher school institutions, as well as publications of a considerable number of Russian scientists, as if on command, became full with terminology and conceptual constructions written “under a carbon paper” from the Western sources. At the same time, the authors of these publications and programmes had a rather superficial understanding of a theoretical essence of the conceptual basis which they used.

A certain type of a successful grant recipient was formed, fitting well the schemes of the Western funds. His or her typical portrait can be characterised as a young expert representing a

regional scientific or educational centre, easily making applications with the use of gender, globalist, multicultural and other politically correct terminology and submitting these applications to all known addresses. Many research groups and centres began experiencing the so called "grant dependence" from the Western commercial and non-commercial orders, first of all in the field of research of public opinion and state of the selected scientific and public areas. This orientation to receive a previously formulated and a rather specific external order, being sometimes an economically forced measure, results in a not free choice of methodological instruments.

Foreign funds did and still doing huge work for the support of the Russian SSH. But transformation of foreign support programmes into a feeding-trough for scientifically weak staff using current demand conditions does not make honour to the Russian scientific community.

A comparative analysis of both the first, "linear" and conflict-free estimation of the state of the Russian SSH, and the second rather alarmist one shows that it is not so well in Russian SSH as it might seem. At least, one should not be calm looking at the absolute growth of the volume of research in SSH. Modern SSH in Russia are characterized by the state of a dynamic transformation, constantly passing the points of a painful bifurcation.

For the past ten-fifteen years the status of science and education has gone down. The role of scientific elite as collective expert, some kind of an «arbitration judge» was taken to a minimum. It very negatively influences the decision-making process with regard to the priority development of the country.

Certainly, there is a need for an in-depth examination of the contribution of the social sciences and related knowledge to the decision-making processes in the public sector. But, in general, it is possible to state confidently that social studies in modern Russia could not help to work out forms and ways of political and economic self-organisation well corresponding with a complexity of problems that the society faces. By XXI century Russian society appeared to be unable to formulate answers adequate to the scale of a big historical challenge: to create an economy, capable to produce all necessary things for life of "a big society"; to form a political system adequate to the effective economy; to grow up necessary critical mass of elite possessing high intellectual and moral qualities. In our opinion, what is happening today in Russia convincingly testifies that a high level of natural-science, engineering, musical, and ballet education does not guarantee understanding the society. The certain factors play in favour of domination of superficial understanding the modern social processes in Russia. In Soviet times, intellectuals always had a prevailed interest in natural sciences, as more neutral in the ideological sense. No need to speak about the pressure of Marxist dogmas and apologetics. The system crisis experienced by Russia was caused, not in the last instance, by a depression of domestic social sciences. Social sciences were not able:

- to reveal laws and specificity of the development of a post totalitarian society, relative character of contradictory trends and foresee a real trajectory of the society movement;*
- to arm the public opinion with a constructive programme of reforms in the interests of the majority, as well as with modern socio-political technologies capable within the limits of a peaceful political process, to impose this programme to the ruling class;*
- to foresee risks on the way of democratic transformations and to warn co-citizens.*

It should be mentioned *inter alia* one specific feature of Russian intellectual life. For the long historic period, Russian intellectuals used to think, to a greater extent, through literature rather than through social sciences. Very much of what in the Anglo-Saxon countries in the XIX century was defined through social sciences – sociology, economy and so on, in Russia was defined through the Russian literature. It is not a surprise when at that time social knowledge was in the embryo state in Russia. Another thing is regrettable that, judging by the stable problems of the society, the situation has changed little since a century. Marginal position of SSH is reflected by statistics relating to graduates of the higher school of the former USSR and later Russian statistic data.

A qualitatively other picture is in the West. In 1990s, the share of SSH experts among graduates of the higher school made in the USA was equal to 29%, in Germany – 31%, and in England – 11.6%¹.

For the Russian society and, first of all, for its well educated part there is a task of historical scale: to bring up a mass type of a citizen, to grow up a social layer of carriers of modern political culture. It is known that a style of thinking determines a style of actions. It is hardly to expect that someone is able to establish democracy in the absence of necessary majority of democratically thinking citizens. Promotion of the society to a state with a supremacy of law should be considered as a major task, criterion for the success and the most convincing result of the work of SSH intellectuals, execution of their historical duty and their social role. *There is a need in a wide long-term programme of education in the field of democratic mechanisms and institutions that could be applicable in the Russian reality* (by the analogy to that started in post-war Germany and continues up to now). This programme should be aimed at a growth of political and legal culture of the population, wide expansion of processes of the social and political self-organisation, formation of institutes of a civil society, development of civilized forms of pressure upon the authorities. A constructive contribution can be brought through informal debate clubs, seminars, and round tables as centres of public opinion formation.

During the epoch of radical transformation of public consciousness and social way of life not only the academic world but also wide strata of the society pin their hopes for the creation of a scientific picture of the Russian society in transition on the progress of SSH. This picture should be become a basis for prognostic concepts for the development of the country in the XXI century.

Not less important are the objectives of SSH: to facilitate technological and social innovations to examine the impacts of technological innovation on society, and to determine which should be the way towards a knowledge society, what kind of structural reforms should be implemented in innovation, education and welfare systems.

2. SSH institutional framework

SSH disciplinary division of SSH in Russia. For hierarchical classification of the fields of knowledge and systematization of all stream of the scientific and technical information in the Russian Federation the State Rubricator of scientific and technical information (GRNTI) is used. It serves as the basis for system of local rubricators (branch and thematic or interdisciplinary problem). GRNTI disciplinary division of SSH in Russia is given in the Annex to the report.

This Rubricator has 3 levels of hierarchy. In general, all types of knowledge are conditionally divided into 4 subclasses:

- Social studies (codes from 00 up to 26);
- Natural and exact sciences (codes from 27 up to 43);
- Technical and applied sciences. Branches of economy (codes from 44 up to 81);
- Interbranch and complex problems (codes from 82 up to 90).

National S&T institutions with respect to SSH policy development and implementation. The governing structure in Science, Technology and Innovation (STI) consists of the following organisations and bodies:

a) Ministries, agencies, bodies and organisations defining and coordinating the state policy: President's Council on Science, Technology and Education, Ministry for Education and Science of the Russian Federation, Ministry of Economic Development and Trade of the Russian Federation, Russian state academies of sciences (the central place here belongs to the Russian

¹ S.A.Magaril. Would Russian intellectuals die? Source: <http://www.intelligent.ru>, accessed November 2006.

Academy of Sciences), Russian Space Agency, various interagency and government commissions and working groups;

b) Financing agencies: the larger part of the government support of Russian STI is allocated directly to the research and technological organisations as subsidies. The other part of the state R&D budget is provided to research organisations on a competitive basis through such agencies as the Russian Federal Agency on Science and Innovation, Russian Foundation for Basic Research, Russian Foundation for Humanities, and Federal Foundation for the Support of Small Innovative Enterprises;

c) Regulating agencies, such as: Federal Supervision Service in Education and Science, Federal Service on Intellectual Property, Patents and Trademarks, Federal Agency on Technical Regulation, Federal Antimonopoly Service;

“The overarching economic challenge facing the Russian Federation is to create the conditions needed to sustain economic growth over the long run at rates that will permit relatively rapid convergence with the advanced OECD economies”². In this regard, an overriding policy objective should make Russia’s economy less dependent on exports of a limited range of natural resources and capable to better exploit the new growth opportunities brought about by the emergence of a global knowledge-based economy.

The Programme of Social and Economic Development of the Russian Federation for the intermediate period (2006 – 2008)³, stresses the importance of increasing the role of research and development, and transformation of research potential into one of the main resources for a steady economic growth based on technological innovations.

Russia spends rather more on inputs into knowledge creation than most countries at similar levels of GDP per capita: it has an exceptionally large science base inherited from the Soviet Union and, despite the cutbacks of the 1990s, it continues to spend more on R&D than most emerging economies. Yet its performance on most generally accepted indicators of innovation performance is mediocre.

After a collapse in the initial stage of the economic transformation, total R&D expenditures of Russia have grown steadily, with acceleration since 2001 but, as a percentage of GDP, they remain far below those of the majority of OECD countries. The bulk of R&D is still carried out within a very large number of public organisations and financed through the government budget. The institutional complexity of the Russian research system - in terms of legal status, ownership, and funding mechanisms - makes it very difficult to draw a clear and precise quantitative picture. The totality of scientific research, but also the bulk of industrial research are performed by the public sector, in many different types of organisations: research institutes of the six state academies, especially in the biggest Russian state academy – the Russian Academy of Sciences (RAS), university laboratories, design bureaus, research branches of state-owned industrial enterprises, etc. There is a dominance of state-owned organisations in the performance of R&D.

The country still benefits from a substantial science base and a well developed education system in science and technology. Overall, the Russian science base remains relatively strong, despite an ageing body of researchers and stock of equipment, and brain drain which was particularly severe in the second half of the 1990s. Many world-class poles of excellence in basic research have been preserved. However, despite some downsizing and restructuring over the last decade, the public R&D system remains highly fragmented, with the ensuing risk of “duplications without synergies”, heterogeneous (in terms of quality and type of research), rather than diversified according to a sound division of labour, and overloaded with developmental activities, as opposed to fundamental research or ambitious R&D.

Basic elements of STI in Russia:

² 2006 Economic Review: Russian Federation, Economic Survey by the OECD Secretariat, Draft 04-Sep-2006. – P.9.

³ The document was approved by the Governmental Decree № 38-p on 19 January 2006.

- **Fundamental science** (that provides mostly basic research) in divisions, institutes, centres of science, laboratories, developmental bases and many science and innovation formations of the RAS, as well as modern scientifically-corporate and public organisations;
- **Universities and higher education institutions, and also integrated education-science-innovation complexes.** The latter represent combinations of various united elements of the innovation cycle structured and supported by the Ministry of Education and Science of the Russian Federation;
- **Applied research institutes and experimental bases** which exist in a number of corporations and Financial and Industrial Groups, the significant part of which is coordinated by the Ministry of Industry and Energy of the Russian Federation;
- **The state system of patenting of inventions and discoveries, and corporate databanks of scientific ideas and "know-how";**
- **Science cities, large S&T complexes and corporate associations.**

According to data of statistical inspections, for the beginning of 2005, 3656 organisations were involved in research and development (Table 1). The 1990s were characterized by a spasmodic development of a network of research organisations: up to 1997 there was annual quantitative growth in number of organisations carrying out R&D, but after that period – their gradual reduction. In 1994–2004, the overall number of research organisations went down by 5.3%

Table 1. Russian R&D Institutions by type

	1999	2000	2001	2002	2003	2004	2005*
Total	4089	4099	4037	3906	3797	3656	3566
Research institutes	2603	2686	2676	2630	2564	2464	2115
Design organisations	360	318	289	257	228	194	489
Constriction project and exploration organisations	97	85	81	76	68	63	61
Experimental enterprises	30	33	31	34	28	31	30
HE institutions	387	390	388	390	393	402	406
Industrial enterprises	289	284	288	255	248	244	231
Others	323	303	284	264	268	258	234

* Because of the introduction of NACE classification (instead of the economic branch classification) in Russian statistic practice, the gradation of R&D organisations by type has been changed that makes a certain break in series for data in 2005.

Source: *Russian Science and Technology at a Glance: 2006 (in Russian)*. CSRS, Moscow, 2006.

A variety of types of research organisations developed in R&D finds a reflection in institutional classifications of scientific organisations. It is based on a grouping of scientific organisations by sectors incorporated by organisational attributes, character and specialization of work. According to the Methodical Instructions to the form of the state statistical reporting (harmonised with Frascati Manual standards), four sectors are defined in the institutional classification of science:

- **Public sector** which activity is directed at provision of the state governance and meeting the needs of the society as a whole;
- **Enterprise sector** covering organisations and enterprises, which primary activity is connected with manufacturing of goods and services for sale (including those being in the state ownership);
- Higher education sector connected with vocational training of qualified experts in higher educational institutions;
- **Private non-profit sector** including private organisations not having gaining profit as their aim.

Data presented in Table 2 reflect those essential shifts which occurred in the 1990s and continuing in 2000-05 in the structure of organisations carrying out research and development by sectors of scientific and scientific and technical activity. On the background of decreasing share of organisations of the enterprise sector (from 56.4% in 1999 up to 47.8% in 2005) and low growth of the share of the sector of higher education (accordingly 12.9 and 15.1%), "representation" of public sector increased. In the general structure of organisations carrying out R&D the share of the given sector increased almost by 6% – from 30.0% in 1999 to 36.0% in 2005.

Table 2. R&D Institutions by sector of performance

	1999	2000	2001	2002	2003	2004	2005
Total	4089	4099	4037	3906	3797	3656	3566
Government sector	1221	1247	1248	1218	1233	1230	1282
Business enterprise sector	2305	2278	2213	2110	1990	1851	1703
Higher education sector	529	526	529	531	526	533	539
Private and non-profit sector	34	48	47	47	48	42	42

Source: *Russian Science and Technology at a Glance: 2006 (in Russian)*. CSRS, Moscow, 2006.

A significant part of the public R&D sector is made by institutes of the Russian Academy of Science and the other five state academies of sciences. A leading place in the network of research organisations in Russian academic sector⁴ is occupied by RAS, the share of which made 35.2% of the government sector organisations in 2005.

Human resources in R&D appear to be disproportionately large relative to total R&D spending during the 1990s. Even now, despite the risen government support, the number of R&D personnel remains large (Table 3). Yet there was an essential reduction of research personnel: the number of researchers in the Russian Federation decreased 2 times as many as compared to the early 1990s. At the same time, there was almost 2-fold increase of the number of researchers of the senior age group.

Table 3. R&D personnel (headcounts)

	Total	Researchers	Technicians	Supporting staff	Others
1999	872363	420212	72442	235841	143868
2000	887729	425954	75184	240506	146085
2001	885568	422176	75416	238933	149043
2002	870878	414676	74599	232636	148967
2003	858470	409775	71729	229214	147752
2004	839338	401425	69963	223356	144594
2005	813207	391121	65982	215555	140549

Source: *Russian Science and Technology at a Glance: 2006 (in Russian)*. CSRS, Moscow, 2006.

However, personnel capacity of the Russian social sciences is sufficient. It included more than 20 thousand researchers in 2005 (Tables 4 and 5). About a half of them were women. In the age structure of Russian researchers elderly people prevail. It is important to understand that by educational and professional "background" these people were formed with a certain conceptual mode of their thinking which neglects the factors and processes not essential in relation to radical social and economic problems.

⁴ One should be aware that the Russian academic sector consists of the state research institutions affiliated within the state academies of sciences that is essentially different from what usually is meant by academic sector in the Western countries.

Table 4. Researchers by SSH field and gender (*headcounts*)

	1999	2000	2001	2002	2003	2004	2005
Total	420212	425954	422176	414676	409775	401425	391121
Social sciences	13534	13259	13159	12571	12565	12467	12497
<i>of which female</i>	8366*	8219*	7983	7512	7593	7594	7393
Humanities	7884	7977	7877	7759	8187	8223	8300
<i>of which female</i>	4469*	4546*	4527	4411	4763	4876	4876

* Data provided by Centre for Science Development Studies of Russian Academy of Sciences (CSDS RAS).

Source: *Russian Science and Technology at a Glance: 2001-2006 (Data Book series in Russian)*. CSRS, Moscow, 2001-2006.

If the current tendency of ageing of the research personnel is kept, by 2015 middle age of the Russian doctors of science will make 70 years and of candidates of sciences – 56 years. There is a real danger of losing continuity in science, as well as the leading position of domestic scientific schools in the world community.

Table 5. Researchers by SSH field (*headcounts*)

	1999	2000	2001	2002	2003
Social sciences – total	13534	13259	13159	12571	12565
of which:					
Economics (1)	7818	7628	7575	6173	7282
Law	506	609	545	498	475
Pedagogics	1670	1710	1723	1730	1573
Psychology (2)	701	719	721	766	667
Sociology	805	927	930	895	1087
Politics	149	150	166	162	181
Other Social sciences	1885	1516	1499	2347	1300
Humanities – total	7884	7977	7877	7759	8187
of which:					
History	3818	3884	3831	3360	4051
Philosophy	794	810	809	1046	847
Philology	2231	2320	2324	2296	2361
Arts, and theory and history of architecture	1041	963	913	832	705
Culture	–	–	–	225	223

Source: CSDS RAS

The priority task of the social and economic development of the Russian Federation is to get a new shape for the public sector of science and higher education until 2015. An active participation of modern research and pedagogical personnel is required. Their training and attraction into this sector should be carried out simultaneously with structural transformations.

The current reform of science is aimed basically at an increase in the efficiency of STI with regard to technological innovations to make them capable to render in the long term a positive influence on the development of the economy. SSH is not present yet in the list of priority directions, it seems that they are not so well corresponding to the scheme focused on innovations and economic achievements. SSH are neither mentioned in any official documents, programmes for the development of science, and in press.

However, the problems concerning social sciences and the humanities have a specificity that should be taken into consideration when analysing the state of the domestic science. In the

conditions of the totalitarian regime SSH have suffered more than any other field of sciences. At the same time they had many achievements in a number of scientific areas that advanced the world level. Though in these sciences there was a lack of actual freedom for scientific creativity, SSH research personnel was exposed to a strict ideological selection and control, social functions of the researchers have been subordinated to the communist party ideology and corresponding practice. The revival of domestic social sciences and the humanities, their development for building up a modern knowledge based society to a large extent depends on human resources and adequate government scientific policy. Today there is a clearly defined need for a wide understanding a role of SSH in the society as one of the main intellectual and human resources of the state and society in solving the sharpest and the most topical problems. Unfortunately, the government still underestimates the role of SSH. For the present time the official S&T policy gives no preference to the SSH disciplines in terms of state programmes and support mechanisms.

Symptomatically, in the official doctrine targeting the development of the domestic science “Fundamentals of the Policy of the Russian Federation in S&T Development up to 2010 and for the Further Period”⁵, there is only one and very uncertain phrase regarding social sciences and humanities which declares «an increase of the role of social and humanitarian research».

Prospects for the development of socio-economic sciences and humanities in Russia (and other CIS countries) are complicated by immaturity of the systems of national priorities and even the concepts of a desirable character of the social system.

The Priority directions in S&T, adopted by the President of the Russian Federation in May 2006⁶, do not include SSH as a national priority. The existing adopted priorities are:

1. Safety and counteraction to terrorism
2. Live systems
3. Industry of nanosystems and materials
4. Information and telecommunication systems
5. Perspective armament, military and special technical equipment
6. Rational nature management
7. Transport, aviation and space systems
8. Power engineering and energy-saving

However, “the live priority” expressed by higher education students’ choice shows that in a modern Russian society there exists the greater demand of education in arts rather than in natural sciences or engineering.

Research organisations, performing SSH research in Russia. In the GlobalSSH Data book information has been accumulated about more than 650 research and education organisations working in Russian SSH (universities, both public and private, academies of science, NGOs, private companies).

At present, distinctions in positions of natural sciences and social and human sciences are almost opposite to what they were about 20 years ago when natural sciences were considered as the only "real" sciences, capable to influence essentially on the social life in Russia whereas SSH was meant as not very useful and strongly ideologized addition to the “real sciences”. Now, on the contrary, on the background of the stopped (for the lack of resources) synchrotrons and semi-deserted institutes of an experimental profile one can observe blossoming of a number of socio-humanitarian disciplines with a leadership of economics and political science.

A prompt, sometimes characterized as "avalanche", growth in number of expert and research centres is observed in these disciplines. For example, now there are more than 300 political science centres in Russia having an average turnover in about 300 thousand dollars per

⁵ Approved by the Decree of the President of the Russian Federation No. Pr-576 of 30 March 2002.

⁶ Approved by the Decree of the President of the Russian Federation No. Pr-843 of 21 May 2006.

year. For last five years the number of postgraduate students and persons working for doctor's degree has increased 3 times in political science and 2.5 times in economics, the number of theses being defended has also proportionally increased⁷.

However the expansion in volume of and interest in social studies is not always accompanied by an adequate rise in the quality of research. For example, from over 100 sociological centres appeared since the beginning of 1990s more than 90% are engaged in surveys which, as a rule, do not fall outside the limits of collecting and processing initial data.

SSH research associations and major research networks. There are lots of examples of more active and creative research, instead of an only "intermediary" one mentioned above. There is a number of professional associations in SSH such as Russian Philosophy Society, Russian Society of Sociologists, Russian Association of Political Sciences, Association of Advisers on Economic Issues and Management, World History Association, Russian Society of Intellectual History, Association for European Studies, Free Economic Society of Russia, Association on Economic Research in Public Sector, Association of Anthropologists and Ethnologists of Russia, Centre of Roman Law Studies, Russian Criminological Association, Russian Union of Constitutionalists, and others. They have either all-Russian or interregional statuses.

For the period of reforms, in SSH for the first time for many years one can observe ample evidence that the SSH scientific community has realized initiatives of self-organisation. Most viable of them have been supported by resources from various international and Russian funds and regional sources. Hundreds of projects of different scale have been realized and completed – from creation of student's discussion clubs to a development and implementation of scientific and educational programmes aimed at the revival of best traditions of the Russian science and education, based on progressive and universal values. There is a number of created electronic SSH networks (for example, the Russian electronic source "Social Sciences and Humanities"), joint international research centres, associations and initiatives, like the French-Russian Centre on SSH, Association for Russian-American Academic Exchanges "Professionals for the Cooperation", International Association of Conflictologists, and others.

The essential part of support both financial and organisational comes to Russia from abroad through programmes directed at developing the research component of Russian SSH. One of the vivid examples is the programme "Inter-regional research in social studies" initiated by the Russia-based charity organisation ISE-Center ("Information. Scholarship. Education") set up in 2002. This programme combines in one efforts of the Carnegie Corporation, the John D. and Catherine T. MacArthur Foundation, the Kennan Institute and the Russian Ministry of Education, nowadays incorporated with the Ministry of Education and Science of the Russian Federation. The basic goal of this programme is promotion and integration of the potential of the Russian classical universities as regards the research in SSH. And now it brings impressing results.

It is worth to mention here that the public organisation ISE-Center sets the following major goals and objectives: promotion of the development of social and humanitarian sciences in Russia; enhancement of the creative activity and scientific potential of the Russian society; dissemination of humane and democratic principles in science and education; promotion of international cooperation in science and education and maintaining close links among scientists; and expansion of opportunities of the involvement of young scientists in international scientific projects.

Russian Higher Education. The overall number of higher education institutions in the Russian Federation makes 1039, including state – 655, private – 384.

Among public organisations, higher education is a very minor actor in R&D. In 2002

⁷ A.V. Yurevich. State of the Russian human sciences and strategy of their development. http://mion.isu.ru/display_analyticsitem?id=000100000294; accessed January 2007.

universities accounted only for 5.4 per cent of federal funding for R&D. This is a legacy of the Soviet system which has not been corrected, despite a relatively good research performance of university-based laboratories compared to other research organisations in terms of both publications and contract research. Until very recently, universities did not even receive budget support for basic research. Only in 2003, the federal budget law opened a new line to provide such support.

The numbers of students by SSH speciality in public and private higher education institutions are shown Tables 6 and 7. SSH enrolment prevails in both public and private higher schools. In 2003, 60.0% of the public higher education students and 77.1% of the private higher education students were educating in SSH.

Table 6. Public higher education enrolment by SSH speciality (by beginning of the academic year)

	1999/2000	2000/01	2001/02	2002/03	2003/04
Total	3728104	4270751	4797417	5228678	5596172
of which:					
Humanities and social	674246	789923	891993	1039247	1112792
Education	223525	263717	296829	319104	344518
Culture and arts	70483	77000	87119	96765	104526
Economics and management	826508	1034386	1234820	1377624	1533351
Informatics and computing	63918	74883	86680	97294	101752
Service	33869	44256	55256	64858	71747
Ecology and nature management	27995	32955	37181	40358	42465
Security of vital activity	11908	17269	23697	30721	37358
Quality management	305	1270	2730	4332	5917
Interdisciplinary	–	–	–	2437	2852

Source: *Higher and Postgraduate Education in Russia (in Russian)*. CSRS, Moscow, 2004.

Table 7. Private higher education enrolment by SSH speciality (by beginning of the academic year)

	1999/2000	2000/01	2001/02	2002/03	2003/04
Total	344885	470590	629526	718819	859541
of which:					
Humanitarian and social	114081	154376	193215	226777	264861
Education	3793	4402	7307	8270	9387
Culture and arts	4905	5240	8008	10193	12216
Economics and management	90571	142378	220158	270937	363179
Informatics and computing	502	1135	1735	2100	3039
Service	864	1758	2610	5244	8435
Ecology and nature management	124	231	315	790	737
Security of vital activity	127	224	238	107	248
Quality management	–	–	8	21	187
Interdisciplinary	–	–	–	481	25

Source: *Higher and Postgraduate Education in Russia (in Russian)*. CSRS, Moscow, 2004.

At the institutional level the process of the extended reproduction of social and human knowledge is provided first of all within the framework of universities, as special type of educational institutions. Unlike natural science knowledge, where research work (including

theoretical) can be conducted outside of educational establishments (including private firms), in SSH area basic research is widely represented at the universities.

75% of new higher education courses relates to the area of management, economics and jurisprudence. The surveys of students demonstrate that they consider as most perspective disciplines the economics, jurisprudence, political science, international relations, sociology, and psychology and practically nobody mention, for example, physics or chemistry. Russian students divide SSH disciplines into three categories, defining economy and law as "disciplines-leaders", sociology, psychology and international relations as "perspective disciplines" and history, philology, philosophy, cultural science and pedagogics as a least prestigious category of "disciplines-outsiders". These tendencies are the same at the level of postgraduate and doctoral courses.

One of the key prospective directions of the state S&T policy of the Russian Federation is the creation of favourable conditions for integration of science and education, effective functioning of the integrated large scientific-educational organisations. Close and organic integration of science and education is an important factor determining the quality of economic growth, innovation potential and, more generally, the national security of the country.

The creation of integrated scientific and educational organisations (research universities, base faculties, joint laboratories, etc.) promotes improvement of quality, efficiency and prestigiousness of research and education as professional occupations, promotes the rejuvenation of research and teaching personnel. Being united, it is easier for scientific organisations and higher school to create conditions for attraction of talented youth, to solve their social problems, to develop programmes of financial support, etc. The involvement of higher school graduates in modern research is extremely important for the reduction of the outflow of young experts abroad, creating conditions for their return back in the country.

For the Russian R&D, low "representation" of the higher education institutions is a feature. In 2003, the overall number of higher education institutions involved in R&D was only 405 that made 38.7% of the total number of higher education institutions. The share of these higher education R&D units in the general number of R&D organisations was remaining at a level of 12.9-13.9% during 1994-2003⁸.

3. SSH policy frameworks

S&T priorities and the weight/place of the SSH in the S&T priorities of countries. As was said earlier national S&T priorities, aimed mainly at innovation development of the economy, do not include SSH yet. Spurring innovations is an evident challenge for Russia over the last years.

In addition, it should be noted that a substantial reform of the huge public S&T sector is critical in promoting innovations in the Russian economy and creating fruitful links between state R&D results and the industries. Most research support comes now from the state budget. In 2005, the budget provided more than 60% of total R&D expenditures, and the money is largely allocated to institutions rather than to research teams (the ratio of institutional funding to project funding is about 80/20). There is thus a need to shift to greater reliance on competitive allocation and project-based funding. For 2006, the budget envisaged the allocation of only 14.6% of all civil R&D funding on a competitive basis. Only over half of this amount was to be channelled through the Russian Foundation for Basic Research and the Russian Foundation for Humanities.

As said earlier, the government appropriations on S&T are on the increase. One of the areas of primary attention of the Russian government is to ensure that the increasing R&D budget is targeted at clearly defined priorities, selected on the basis of many-sided consultations involving government and business circles, the scientific community and civil society institutes. Adaptation of technology foresight approaches, employed in other countries, to Russian

⁸ Science and Innovation Complex of Russian Higher Education. Data Book of CSDS RAS. Moscow, Nauka, 2005 (in Russian). P. 14, 15.

conditions is now being more and more attentively considered to help structuring the process of priority selection and reviewing. While support for fundamental research is to be primarily a government responsibility, the authorities seek to limit direct support of applied R&D to areas where there is a good reason to believe that socio-economic returns exceed the private returns and to employ co-financing mechanisms such as public-private partnerships where possible.

There have already been intensive discussions on transforming the organisational and legal status of Russian public research institutes. The government currently plans to turn a considerable part of them into “autonomous institutions”, a new legal form for which legislation has been recently approved. There is an obvious need to move research and higher education institutions away from the current system which simply transfers budgetary funds to them in amounts deemed sufficient to cover anticipated costs. Budgetary organisations are limited in their ability to co-operate flexibly with non-budget units. Being an autonomous institution a research organisation would have greater financial freedom and greater financial responsibility. In this situation regular external evaluations of such organisations will be one of the key requirements.

Restructuring the public S&T sector will cause not only reorganisation of many institutions (giving another legal and organisational status to state unitary enterprises and state institutions) but also consolidation and downsizing.

There is also a need to provide more avenues for the careers of young researchers. In order to create new opportunities for them, to pursue their work, and to advance their careers within Russian S&T new targeted federal programme is being developed⁹.

National policy regulations on research activities. Federal Law on Science and State Science and Technology Policy sets up the basis of the national legislation for S&T in Russia. The latter includes also a number of other federal laws, statutory and regulatory acts of the Russian Federation, as well as laws and other legal acts of the Entities of the Russian Federation. Federal Laws on Education and Higher Professional Education forms the basis of the national legislation in Education.

Main directions of the state policy in STI and Education are regulated also by a number of conceptual documents, doctrines and federal targeted programmes, such as:

- Fundamentals of the Policy of the Russian Federation in S&T up to 2010 and for the Further Period;
- Strategy of Science and Innovation in the Russian Federation up to 2015;
- Priority Areas for the Development of Science and Technology in the Russian Federation;
- Critical Technologies of the Russian Federation;
- Concept of the Long-Term Forecast of the Development of S&T in the Russian Federation up to 2025;
- Federal targeted programme “R&D in Priority Areas of Development of S&T in Russia in 2007–2012”;
- Programme for the Development of Science Parks in High Technology Area in the Russian Federation;
- Programme of Modernisation of the Russian State Academies of Sciences;
- Concept of the System of Training and Attestation of Research Personnel of Higher Qualification¹⁰;
- Programme for Middle-Term Socio-Economic Development of the Russian Federation;
- Priority Areas in Education in the Russian Federation;

⁹ This work is being carried out by the government in accordance with the Presidential Decree on the development of research personnel potential signed in August 2006.

¹⁰ Research Personnel of Higher Qualification includes researchers having diplomas of Candidate of Sciences or Doctor of Sciences.

- National Project “Education”;
- Federal Targeted Programme for Development of Education in 2006–2010;
- and others.

The complexity of the Russian situation can be illustrated by a number of challenges that the Russian government faces. There are pressing needs to improve the innovation climate in general and in all economic sectors as well, to provide modernisation of practically all branches of the economy and simultaneously to carry out its structural reorganisation for the benefit of high technology sectors having long-term prospects in the world markets. Reorganisation of S&T for a long time was carried out in a slapdash fashion with a purpose to prevent its irreversible disintegration. In the 1990s, in the period of transition to a market economy, the accent was done on rescuing academic and leading branch institutes, fixing obligations of the state support of science, providing tax privileges for research organisations. The important strategic decisions on reforming institutional infrastructures of science, the introduction of modern and flexible forms of organisation and financing of research and innovation activities, the integration of science, industry and education were postponed at that time for the future. Undertaken reorganisation measures did not always promote the development of science, its integration into the market environment, solution of current and perspective social and economic problems. Even today the domestic STI complex still bears determinants of the former "Soviet" model of organisation and management, weak investment attractiveness for private investors.

Since late 1990s, a new stage started in the development of the Russian education and science. The long-term tendency of reduction of the state support of R&D has been stopped. For the first time, after the uneasy 1990s, the state (both on federal and regional levels) has stopped patching and has started searching for an optimum in the strategies for the education and science sectors recognizing and considering them as a major component of the social and economic development. For the first time in the last decade one can find out gleams of rising awareness of the role of SSH, social and economic sciences begin to be a subject of a wide public debate. On the agenda now are the integration of the Russian science and education in the world science and education space, development of research networks, diversification of research caused by the current challenges, reorientation and change in values, as well as by the transition of the economy towards the practically demanded and human-oriented models.

In February 2007, Public Council was established at the Ministry of Education and Science of the Russian Federation. It includes representatives of public associations, mass-media, Russian state academies of sciences, scientists and experts in education, science, and youth policy. Participation of the representatives of the civil society gives a chance to increase the openness of the state policy in education and science, to create preconditions for the discussion and implementation of bottom-up public initiatives in education, science, and youth policy. The Council will carry out public expertise of legislation being developed by the Ministry of Education and Science.

International cooperation in SSH. In the past 15 years, a significant experience has been accumulated in interaction of international organisations and foundations with the Russian public organisations and state establishments, a number of mechanisms and approaches aimed both at support of and reforming Russian STI has been tested.

The majority of foreign organisations started their activities in Russia as charitable funds which provided urgent assistance to scientists and institutions during the transition period. First of all their attention was focused on basic sciences considered as world cultural asset, as well as on the military-industrial sector of S&T. The foreign support promoted reorientation to the implementation of civil research projects in order to minimise the outflow of Russian scientists to the countries of the third world with unstable and undemocratic regimes. Gradually, the focus of activities of international programmes and foundations has been shifted from the support of organisations and individual scientists to a more active participation in commercialization of

R&D results and assistance to S&T reforms carried out by the Russian government with different speed and in various directions. Foreign organisations and foundations tried to introduce in Russia those tools and mechanisms which had proved their efficiency in donor countries.

For the last years many initiatives have been realized and Russian S&T has received an unprecedented financing from foreign organisations and funds. The International Science Foundation (ISF) during the period of its work in Russia (1993–1996) invested almost 130 million dollars in the basic science of the former USSR. In 1994–1995, ISF financing made up about 13% of the expenditures on basic research in Russia. The International Science and Technology Centre (ISTC) allocated about 500 million dollars, having financed the conversion of military research of more than 52 thousand scientists, engaged earlier in the defence R&D. The International Association for the Promotion of Co-operation with Scientists from the New Independent States of the former Soviet Union (INTAS) allocated about 120 million euro to Russian S&T since 1993¹¹.

In 2003, as compared to the former socialist countries by a level of foreign financing, Russia, with the share about 9.6% of gross expenditure on R&D (GERD), was close to Hungary, having the share of foreign sources about 10% of GERD, and essentially advanced all other countries (Poland – 4.8%, Czechia – 2.7%, Slovakia – 2.1%). The majority of foreign organisations and funds plan to continue working in Russia, strengthening their participation in reforms. The main value of these foreign initiatives is the approbation and introduction of new mechanisms of S&T activities by means of implementation of their research programmes¹².

The following international and foreign organisations and funds could be mentioned as largest foreign donors to Russian S&T in the post-Soviet period: International Science and Technology Centre (ISTC); International Association for the Promotion of Co-operation with Scientists from the New Independent States of the former Soviet Union (INTAS); the West-European organisations and funds: German Service of Academic Exchanges, German Research Society, German Alexander von Humboldt Foundation, German Max Planck Society, British Welcome Trust, Royal Society of Great Britain, British Council, Netherlands Organisation of Research, French Pro Mathematica Foundation; American organisations and funds: National Science Foundation of the USA, International Science Foundation established by G.Soros, John D. and Catherine T. MacArthur Foundation, American Civil Research and Development Fund (CRDF), Eurasia Foundation, Ford Foundation, IREX Programme, Fulbright Programme.

Of the greatest value for reforming Russian science are the programmes on involving Russian scientists in the international scientific community, on creating new organisational forms of S&T activities (centres of science and education), on introducing mechanisms of promoting R&D results into the market (creation of technology transfer centres), on developing innovative infrastructure (projects on establishing relations between S&T and industry).

The foreign donors acting in Russia can be divided into three categories. Firstly, funds affiliated with the large scientific organisations and state associations and foundations such as the Royal Society of Great Britain, National Science Foundation of the USA, German Alexander von Humboldt Foundation. It is possible to put to the same group such EU organisations as INTAS and TACIS (currently renamed in EuroAid). Secondly, there are the funds established by large firms or companies: Rothmans Foundation (USA), Hitachi Foundation (Japan). Thirdly, there should be mentioned numerous private and the charitable funds widely represented now in Russia (John D. and Catherine T. MacArthur Foundation, Ford Foundation, and others).

By organisational and legal status these organisation can be funds like MacArthur Foundation and INTAS, associations such as ISTC or state-private partnership such as CRDF.

Depending on source of financing the funds can be divided into those having their own

¹¹ I.G.Dezhina. Impact of International Organizations and Foundations on reforms in Russian science. Institute of the Economy in Transition, 2005. P. 7-8.

¹² Ibid. P.53.

resources (for example, as a result of donation of individual person – Ford, Rockefeller, Soros) and those receiving resources from other funds and state establishments, thus being a kind of intermediaries. For example, IREX has some channels of financing received both from private sources (Carnegie's Corporation, various universities) and from the US state budget (from the US Agency for International Development – USAID). These are also so-called funded-driven organisations. Finally, it could be named the organisations financed exclusively from budgetary funds (Fulbright Programme, Netherlands Organisation for Scientific Research – NWO, the German Research Society (Deutsche Forschungsgemeinschaft – DFG), National Science Foundation of the USA).

Among foreign organisations actively working in Russia, those ones financed from the state sources and having mixed financing prevail. Some organisations were initially created as allocating exclusively budgetary funds, and then, in process of reduction of their state support, they began to search for additional sources, develop partner relations with the private organisations or state establishments of other countries. The share of private sources in such organisations and funds is relatively small – it does not exceed 10%. However in due course it will grow. As examples of such evolution it is possible to present Max Planck Society, German Service of Academic Exchanges.

From the point of view of a country's origin the American programmes and funds, programmes of the European Union, as well as foreign organisations representing interests of different countries are better known in Russia. There is also a great number of foreign funds which do not have representations in Russia, but the funds support programmes in which Russian scientists' participation is eligible. The main part of foreign funds and organisations, involved in Russian S&T, has the US origin (34.3%). It is followed by the organisations and funds of the Great Britain (14.7%), organisations of international associations and the European Union (10.7%), Germany (10.1%), Japan (5.8%) and France (4.1%)¹³.

The foreign funds allocate financing on the basis of competitive grants, special programmes or initiatives. They develop also the so-called contract works when a fund performs certain projects in accordance with the order of government bodies. The most widespread forms of support are individual or group grants allocated directly to Russian researchers or research teams. The supported research projects can be carried out in Russia as well as abroad, there are also joint projects in which several foreign and Russian partners participate jointly.

Special initiatives include support for promotion of the creation of new structures or introduction of new mechanisms. Such forms of support sometimes are called as special projects. In the last years more and more projects aimed at commercialisation of R&D results began to develop, mainly on the basis of shared financing with industry. The increasing number of funds starts realising programmes, based on shared financing with Russian federal and regional government participation (MacArthur Foundation, Carnegie's Corporation, Ford Foundation, CRDF, NOW). It is characteristic that the same funds or organisations can develop simultaneously several kinds of programmes, both competitive grants and special, and this diversification is growing.

Disciplinary orientation of foreign funds in Russia looks the same as in other countries: the overwhelming number of funds finances social sciences and the humanities, as well as socially significant research (such as, for example, ecology, medicine, and agriculture). The analysis of research subjects of some American funds accepting applications from Russian scientists shows that 42% of them finance research in ecology, 32% support research in the field of SSH, 13% finance exclusively political science, and the same number – research in natural sciences. Research in natural science and commercialisation of R&D results are supported now mainly within the framework of joint projects (INTAS, ISTC, CRDF, NWO, Framework programmes of the European Union).

¹³ International, Regional and National Organizations, Foundations, and Programmes. Voronezh State University, 2002.

The three previously mentioned organisations (ISTC, ISF and INTAS) were the largest sponsors of the Russian science. ISF operated only within four years (1993-1996), however the short period fell on one of the most difficult times of the Russian science. The financing allocated within those four years still remains the greatest contribution in support of Russian S&T as compared with investments of other organisations and funds for the similar periods of time.

The role of ISF is primarily connected with the scale of its work, but also with the fact that it was the first foreign organisation which widely introduced such new for Russia form of activity such as a scientific foundation. From almost 130 million dollars invested in the basic sciences of the former USSR almost 95 million dollars have been allocated on the basis of a new mechanism of competitive grant. In 1994-1995, the volume of ISF financing made up about 13% of the total expenditure on basic research in Russia. ISF main objectives consisted in the support of the best research teams and distribution of new principles of S&T financing and management in the former USSR¹⁴.

ISF was actually the first which used in Russia new elements of the science organisation which already became ordinary now: such new concepts as "grant", "peer review", "international evaluation of projects", "targeted support of scientists" instead of organisations, new principles of grant management have been introduced into the Russian practice. Introduction of a grant mechanism meant actually not only a new source of support of the Russian science but also the emergence of a new mentality, new culture of carrying out research. All these elements were the contribution to building up of a new S&T elements functioning under new market conditions.

Since 2003, one can observe a growth of a variety of initiatives, development of the programmes directed on a wider inclusion of Russia into various international projects, increase in number of business-focused programmes aimed at commercialisation of Russian R&D results. New research capabilities for SSH are now provided by international and multinational R&D agreements, promoting the Russian participation in the EU Framework and other S&T and higher education programmes, NATO research programme.

The majority of funds continue working; they diversify their activities in Russia. At the same time there is a number of well-known research sources such as Fulbright-Kennan programme, DAAD and Alexander von Humboldt Foundation for scientists in SSH which give grants for training Russian experts abroad – they do not change scales and orientation of the work. In the latter programme of scientific training, SSH researchers occupy the second in number place. For the last 5 years more than 1200 historians, lawyers and sociologists came to Germany from Russia. A great number of summer schools is also open for Russian researchers in Western countries.

The main feature of the present period can be characterised by increasing number of the European organisations and foundations that count on growing inclusion of Russia in all-European programmes in S&T. One of the main features of the given process is an increase in volumes of grants for performing joint projects with a reduction in their general number. The other feature is an increasing concentration on certain areas of research, on special projects including the joint solution of global problems.

At the same time Russian funding organisations more often announce joint calls and tenders with Western foundations in SSH fields. For example the Russian Foundation for Humanities (RFH) established contacts with a number of foreign foundations in SSH. RFH announces joint calls with Byelorussian Republican Foundation for Basic Science, National Academy of Sciences of Ukraine, Academy of Sciences of Moldova, Academy of Sciences of Finland, Ministry for education, Culture and Science of Mongolia, German Research Society (Deutsche Forschungsgemeinschaft – DFG). RFH is an associated member of the International Association of the Academies of Sciences.

It should be mentioned here also the activity of the Institute of Scientific Information for

¹⁴ ISF Annual Report. 1993 P.1.

Social Sciences of the Russian Academy of Science (ISISS RAS), created in 1969, the largest centre of scientific information in SSH. The Institute is known in the scientific community for its abstract, bibliographic and analytical editions, its electronic information system on Social Sciences and its Basic Library having over 13.5 million of books and periodicals. ISISS RAS supports and develops communications with the world research and library centres, including Germany, France, USA, India, Chinese People's Republic, and other countries. The cooperation is carried out both on a bilateral basis, and within the framework of international projects. ISISS RAS has opened access in particular to more than 1000 electronic journals of the Taylor & Francis publishing house (<http://www.informaworld.com>). The Institute regularly directs experts to foreign research centres for studying and participation in international seminars and conferences, invites scientists from various countries to Russia on a mutual basis. ISISS RAS has a number of problem-oriented thematic collections in SSH, such as Topical Problems of Europe, Political Science, Economic and Social Problems of Modern Russia, and others.

It is impossible to say about all international contacts in SSH, developed by a great number of Russian scientists with relevant foreign research centres, programmes and foundations. Here have been outlined only the major ones.

Other formal frameworks for the promotion of the international collaboration in SSH. In the last decade, numerous contacts of scientists and members of diverse civil society groups in Russia were developed with similar organisations in the USA and Europe. By now there is quite a large group of researchers and civil society groups leaders who obtained training and education in the US and European countries. They are connected with American and European organisations by cooperative projects, participate in a number of scientific events. Therefore these Russian scientists use English quite naturally in their work, they are rather adapted to how to speak and behave in the American and European cultural environment, and they can easily apply for grants to foreign financing organisations not always working on the Russian territory.

Modern tendency in Russian SSH is the development of research networks connecting scientists, research organisations of various types (including NGOs). Some of them were mentioned above in the section “*SSH research associations and major research networks*”. One of the examples is the Network Institute of Public Innovations which activity focuses on strengthening and consolidation of public initiatives for the development of civil society in Russia.

Funded thematic priorities. Distribution of funding between different economic objectives may be illustrated by the results of SSH support from the Russian Foundation for Humanities.

For the competition in 2006 as of 31 December 2005, 6628 applications were registered in RFH. More than half of them (68.0%) made research projects, others – projects of publishing proceedings (11.5%), projects on organisation of conferences (11.0%) and expeditions (4.6%). The share of projects on creation of information systems (3.9%), as well as on development of scientific telecommunications and material resources for research (1.0%) are still insignificant (Table 8).

Comparing the numbers of applications submitted for the competitions in 2005 and 2006 (without taking into account projects of participation of Russian scientists in scientific events abroad), one can see a growth – by 26.9% (from 5219 to 6628 applications). The growth in the number of applications for the competition of 2005 in comparison with the competition of 2004 made up 8.9%.

Table 8. RFH: Distribution of applications by kinds of competition and expert councils in 2006

Applications	expert councils by SSH field					Total	%
	History	Economics	Philosophy	Philology	Psychology		
Research	954	726	949	785	1088	4502	68.0
Publishing	266	30	131	279	58	764	11.5
Expeditions	181	14	35	56	22	308	4.6
Conferences	123	84	177	139	208	731	11.0
Telecommunications, and material and research base	10	13	9	17	11	60	1.0
Creation of information systems	70	32	43	75	43	263	3.9
Total	1604	899	1344	1351	1430	6628	100.0
%	24	14	20	20	22	100	

Source: Russian Foundation for Humanities

By SSH field, the applications for the competition 2006 were distributed as follows: leading positions are still kept by historical sciences (24%). The share of applications on problems of complex studying of man, psychology and pedagogics considerably increased up to 22% (in 2005 – 20.5%), then come applications in social sciences (20%), philology (20%) and economy (14%). Distribution of applications and the supported projects by kinds of competition is presented in Table 9.

Table 9. RFH: Distribution of applications and supported projects by kinds of competition in 2006

Kind of competition	Applications	Supported projects	Percent of passage
Research	4502	1205	26.7
Publishing	764	229	29.9
Expeditions	308	118	38.3
Conferences	731	266	36.3
Telecommunications, and material and research base	60	27	45.0
Creation of information systems	263	64	24.3
Participation in scientific events abroad	-	-	-
Total	6628	1909	28.7

Source: Russian Foundation for Humanities

In 2006, RFH planned to finance 3489 projects. According to the Federal law “On the Federal Budget for 2006”, 683.3 million rubles (in 2005 – 532.0 million rubles) made the volume of financing for the RFH research programmes. The main part of resources were to be directed on financing research projects (75.5%) and projects on publishing proceedings and research papers (6.6%). Then follow projects on creation information systems (6.5%), organising conferences (5.2%), organising expeditions (4.0%), participation of Russian scientists in scientific events abroad (0.8%), and development of research communications and material and research base (1.4%).

Along with the funding provided by RFH, there are opportunities to win competitive grants mainly for socio-economic research in a number of Federal Targeted Programmes in priority areas of research and education.

Horizontal research support policies in Russia. Special preferences (such as support of women, young scientists, researchers in regions) are considered, as a rule, in cases when it is necessary to make a choice between projects "with other things being equal". Consideration of the list of the special supported categories shows that the majority of foundation, both Russian and foreign, pay special attention to the support of young scientists. Much the smaller number of foundations pays attention to scientists in regions and even less – to women-researchers.

In the federal targeted programmes for research and education in priority areas greater attention is paid now to the mobility of scientists, including the international one.

Policies and institutions on the national and regional levels that promote problem-oriented and interdisciplinary approaches. In the above section of the report named "National S&T institutions with respect to SSH policy development and implementation" there was given a structure of governing bodies and organisations in STI defining the government S&T policy including the development of research in SSH.

In accordance with the Decision of the Government of the Russian Federation of November 2005, the Ministry of Education and Science of the Russian Federation together with the Russian state academies of sciences and other interested organisations have worked out the Plan of basic research till 2025 by priority areas of research and development. In a very conditioned extent, this document could be considered as an important indicator of the current and prospective governmental priorities for Russian SSH research as well as interdisciplinary approaches that are defined by the scientific and academic community¹⁵.

The large thematic scope for research in SSH is presented in the Plan for the Russian Academy of Sciences for 2006-2010 by the blocks containing main problems and their large divisions (Table 10). The scope was developed in RAS on the base of wide participation of RAS research institutions. Each division includes the lists of main scientific objectives to be solved in the defined period.

The plan of basic research of RAS also includes a separate part of forecast directions of research for the period 2011-2025 (not presented here), from which one could imaging a certain estimation for future and prospective priorities for the research in SSH.

Table 10. Areas of perspective research in SSH in the Russian Academy of Sciences in 2006 – 2010

<p>1. Philosophy, sociology, psychology, political sciences and law</p> <ul style="list-style-type: none">– Civilisation changes in modern Russia: spiritual processes, values and ideals– Social theories on the edge of XXI century: paradigms, tendencies, prospects– Problems of interaction of person, society and nature: concept of sustainable development and its realization in Russia– Socio-political development and consolidation of the modern Russian society– Political relations in the Russian society: authority, democracy, personality.– Transformation of the social structure of the Russian society– Strengthening of the Russian statehood, including federal relations– Legal and judicial reforms in Russia and international law and order of the XXI century– Individual as a subject of public changes: social, humanitarian and psychological problems– Problems of mass consciousness
<p>2. Economic sciences</p> <ul style="list-style-type: none">– Methodological problems of economic theory– Trends in evolution of socio-economic systems and institutes and their reforming. Formation of institutes of the mixed society. Organisational and administrative structures and mechanisms of their updating– Theoretical problems of formation of the of knowledge economy

¹⁵ It should be stressed out that this document represents only some indication of priority directions in SSH. The list of research areas is not provided by any special mechanism of the government support or other privilege. There is no officially adopted document stating SSH priorities.

- Technological development of Russia: state, conditions, prospects
- Scientific basis for the concept of socio-economic strategy of the Russian Federation
- Analysis of non-stationary dynamic macroeconomic processes. Theory and methods of economic and mathematical modelling
- Theoretical problems of socio-economic dynamics and its forecasting
- Problems of human potential development
- Potential of the Russian Federation and problems of reproduction of national welfare. Problems of providing a sustainable and ecologically safe economic growth. Problems and mechanisms to ensure social and economic safety. Quality of economic growth. Industrial policy of the Russian Federation
- Scientific bases of financial, credit-and-monetary and price policy. Formation of a modern financial system-credit system
- Trends in transformation of agrarian relations and reforming of agricultural and industrial complex
- Transformations of socio-economic space of Russia; strategy of territorial development. Scientific bases for regional policy; economic federalism. Sustainable development of regions and cities
- Integration of the Russian Federation into the world economic space. Formation of a uniform economic space within the framework of the CIS
- Economic history of Russia and history of the Russian economic thought

3. World development and international relations

- Formation of the bases for a modern system of international relations
- System of international security. Ways to prevent and settle international conflicts. National security of Russia
- International terrorism. Experience of counterterrorism struggle in a context of national security of Russia
- Place of Russia in the world economy. Features of the Russian integration into the world economic community
- National interests and strategy of Russia in the CIS. Evolution of economic, social and political structures on the post-Soviet space
- Developing countries and the countries with transition economies in the world economic and socio-political processes
- Complex research of economic and political development of foreign countries and regions of the world in interrelation with national interests of Russia. Experience of reforms in foreign countries.
- Problems of globalization and regionalization in the international relations. Integration processes in a regional, continental and intercontinental format.
- Civilisation component of the global development

4. Historical sciences

- Theoretical works in the field of methodology and theories of historical process
- Generalization of experience of the Russian and global transformations and public potential of the history
- Studying of the evolution of an individuals, societies and civilisations: a person in the history and the history of everyday life

Research of historical, cultural and state development of Russia and evaluation of its place in the world historical and cultural process; Russia and the Slavic world

5. Philological sciences

- Studying of spiritual and aesthetic values of the domestic and world literature and folklore in modern judgement
- Basic research of the theory, structure and historical development of languages of the world
- Research of grammatical and lexical building of the Russian language, its functioning and evolution; creation of an electronic case of texts of Russian language, literature and folklore as a foundation for basic and applied research

6. Complex interdisciplinary problems of the humanities

- Complex research of ethnogeny, ethnocultural shape of people, modern ethnic processes; historical and cultural interaction in Eurasia
- Development of a theoretical basis and work on preservation, studying of an archaeological, cultural and scientific heritage

Source: Plan of basic research of the Russian Academy of Sciences for the period up to 2025 (in Russian). Moscow, Nauka, 2006.

4. SSH funding

As mentioned above, Russia spends rather more on inputs into knowledge creation processes than most countries at similar levels of GDP per capita: it has an exceptionally large science base inherited from the Soviet system and, despite the cutbacks of the 1990s, it continues to spend more on R&D than most emerging economies. Total R&D spending in Russia amounts to approximately 1.2 % of GDP. Most Russian R&D is financed by the state.

Thus, there is a need to shift to greater reliance on competitive allocation and project-based funding. There has already been some progress in this direction. In 2005, Ministry of Education and Science and agencies involved in R&D financing allocated 73% of their funds on a competitive basis, up from 23% in 2004. These agencies are mainly concerned with financing applied R&D under federal targeted programmes rather than with basic sciences.

Table 11. Federal budget appropriations by objective selected, million rubles, at current prices

	1999	2000	2001	2002	2003	2004*
Total	11621.5	17091.7**	23023.0**	29962.5	40239.7	46160.0
of which:						
<i>Ministries and departments</i>	<i>8098.2</i>	<i>11519.7</i>	<i>16189.2</i>	<i>22088.4</i>	<i>29438.8</i>	<i>36114.2</i>
<i>Goal-oriented public foundations</i>	<i>924.1</i>	<i>1308.5</i>	<i>1865.7</i>	<i>2456.7</i>	<i>2778.7</i>	<i>3423.7</i>
including:						
Russian Foundation for Basic Research	691.4	983.1	1334.5	1734.5	1963.8	2375.5
Russian Foundation for Research in Humanities	116.3	163.4	220.0	288.8	324.0	408.8
<i>Priority objectives of science and technology development</i>	<i>2599.2</i>	<i>4263.5</i>	<i>4968.0</i>	<i>5417.4</i>	<i>8022.2</i>	<i>6622.1</i>

* Specified consolidated budget list.

** Including additional balance and account balances.

Source: *Russian Science and Technology at a Glance: 2005 (in Russian)*. CSRS, Moscow, 2005.

Nevertheless, the broader picture is changing slowly: the 2006 budget envisages the allocation of only 14.6% of all civil science funding on a competitive basis. Just over half of this is to be channelled through the Russian Foundation for Fundamental Research and the Russian Humanities Science Fund. The Ministry of Education and Sciences wishes to shift the ratio of institutional funding to project funding from 80/20 in favour of the latter to perhaps 50/50. The government strategy envisages reform of funding mechanisms proceeding in tandem with a shift in priorities towards greater financing of fundamental rather than applied research. The intention here is clearly to attract more private investment into downstream R&D, leaving it to the state to finance basic science.

Table 12. R&D expenditure in Russian Academy of Sciences, million rubles, at current prices

	1999	2000	2001	2002	2003	2004
GERD –total	48050.5	76697.1	105260.7	135004.5	169862.4	196039.9
Russian Academy of Sciences:						
at current prices	5102.0	7449.3	10584	13863.1	18713.5	21766.4
at constant 1989 prices – <i>thousand rubles</i>	304.0	322.6	393.4	445.4	526.4	519.5

Source: *Russian Science and Technology at a Glance: 2005 (in Russian)*. CSRS, Moscow, 2005.

The main source for SSH financing is federal R&D budget allocated mainly to research institutions and on a competitive basis through federal R&D targeted programmes for R&D in priority areas, as well as federal budget support for research carried out in institutions of the Russian state academies of sciences (Tables 11 and 12). As an example of the system of financial sources for R&D in Russia, financial sources of RAS institutions are shown in Chart 1.

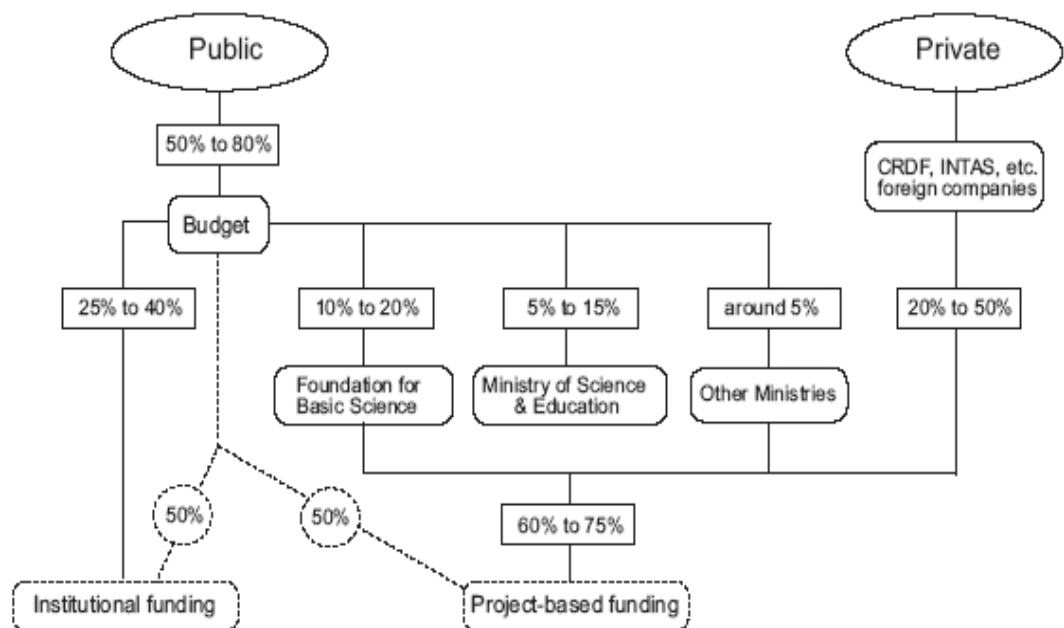
Since SSH are not in the list of priority areas the amount of the budget allocated for SSH remains low. In 2004, SSH share in the current R&D expenditure was equal to 2.7%. In 2005, the share was slightly higher – 3.0%.

Data on intramural current expenditure in SSH by sector of performance are represented in Table 13. It shows that, in 2005, 42.2% of the total number of current expenditure in the social sciences and 78.5% in the humanities were spent in state research institutions, the higher education share in SSH research is considerably less – only 30.7% in the social sciences and 19.1% in the humanities.

The main federal targeted programme for R&D support “Research and development in priority S&T areas” includes projects on social and economic research and training of young scientists and experts in large centres of science and educational (including foreign ones).

The President of the Russian Federation established several awards within the framework of the priority national project on education for the support of talented youth in the age of 14 to 25 years inclusive. There a number of regional grants as well.

Chart 1. The financing sources of RAS institutions



Grants of the President of the Russian Federation for the state support of young Russian scientists – Candidates of Sciences and their scientific supervisors, young Russian scientists – Doctors of Sciences, and leading scientific schools of the Russian Federation¹⁶ are awarded at the state level. In 2006, about 600 grants were allocated to young scientists with qualification of Candidate or Doctor of Sciences, more than 100 of which belonged to SSH.

Grant-awarding foundations are the main new mechanisms to provide the government support of R&D and innovations that had been introduced in Russia in the early phase of the economic transformation. With their establishment, a new culture in the Russian research community started to develop. Like similar funds in Western countries their main distinctive features, compared to other funding instruments, are: open competition for funds, bottom-up definition of research projects, and accountability.

Table 13. Intramural current expenditure by sector of performance and SSH field, million rubles, at current prices

	1999	2000	2001	2002	2003	2004	2005
Intramural current expenditure –total	46412.1	73873.4	100507.4	128243.3	161202.7	187210.5	221119.5
Social sciences	794.6	1218.6	1766.6	2273.7	2884.0	3347.0	4628.5
Humanities	464.7	564.8	811.7	1264.9	1532.4	1676.5	2071.7
<i>of which</i>							
Government sector – total	11741.5	18079.2	24385.4	31289.7	39834.2	46123.2	56342.3
Social sciences	358.1	531.2	821.7	922.8	1128.1	1405.9	1951.2
Humanities	338.1	445.8	630.3	1039.9	1222.2	1346.5	1626.0
Business enterprise sector – total	32341.0	52188.4	70509.7	89412.4	110863.7	130171.3	151228.7
Social sciences	259.7	372.9	438.9	611.4	778.9	851.2	1213.0
Humanities	15.5	24.0	39.7	26.7	27.7	28.5	48.4
Higher education sector – total	2276.1	3446.3	5401.9	7220.4	10149.0	10533.1	13144.3
Social sciences	175.3	313.4	497.3	731.4	965.0	1072.9	1419.6
Humanities	111.1	94.6	141.7	198.0	282.2	301.5	395.9
Private non-profit sector – total	53.5	159.5	210.4	320.8	355.8	382.8	404.2
Social sciences	1.6	1.0	8.8	8.0	11.9	17.0	44.8
Humanities	–	–	–	0.3	0.4	–	1.4

Source: CSDS RAS; and: *Russian Science and Technology at a Glance: 2006 (in Russian)*. CSRS, Moscow, 2006.

In Russia a competitive grant system of R&D support is realized mainly in the Russian Foundation for Basic Research (RFBR) and Russian Foundation for the Humanities (RFH) which were created in the early 1990s as similar establishments to the American NSF. Unfortunately, only the outward form was mainly borrowed rather than its essential content. In particular, transparency and openness of all kinds of competitions, availability to applicants of written conclusions of experts and commissions on their applications – all these things leave much to be desired. At the site www.scientific.ru, the electronic source of Russian research

¹⁶ Scientific school is a rather informally defined term, surprisingly existing in the official lists as a subject for R&D support due to sharp financial shortage in S&T in the early 1990s. By a scientific school is meant a research collective (with a free inflow and outflow of researchers) stably existing for a quite long period of time and in which a number of researchers of higher qualification were trained through practical implementation of research projects. The scientific school is headed by a scientific leader – a recognized researcher who developed a new line of investigation acknowledged in the country and abroad.

community, the researchers formulated many useful, easily realized recommendations on improvement of competitive system of the RFBR, the majority of which do not even demand any additional financing.

Russian Foundation for Basic Research (RFBR). The RFBR was created in 1992. It supports basic research in all scientific fields. Its budget represents around 6% of the federal budget appropriations on civil R&D. Today the RFBR finances about 8000 research projects implementing by researchers or research teams in academic institutes, universities, and industry. More than 2000 researchers from different regions of Russia are involved in the peer-review system of project evaluation. Each application is evaluated by up to 50 people. RFBR is considered by researchers as a valuable source for funding basic research and the purchase of some small pieces of equipment. However, the budget of RFBR is relatively small that limits considerably its influence on the competitive research system.

Russian Foundation for Humanities (RFH). Initially RFH was a subdivision of RFBR responsible for the support of social sciences and humanities. In 1994 it became an independent foundation. RFH operates on the same principles as RFBR, and its budget represents 1% of the federal budget appropriations on civil R&D. RFH faces the same problems as the RFBR: a small budget spread over too many projects.

Except for the budgetary funds allocated through federal and regional executive authorities, there are other sources of financing of social sciences and humanities in Russia, represented mostly by foreign NGO organisations. There is a lack of domestic private foundations, able to support and to develop SSH in Russia, though a tendency to the improvement of the situation has been outlined recently. Except for RFH grants on research in SSH are given under the programme of presidential or local grants, as well as from the Russian corporate and foreign foundations (Dynasty and Potanin foundations, etc).

International funding organisations in SSH. The Russian government in the 1990s practically did not allocate enough resources for S&T to be able functioning normally. Russian social sciences and the humanities were saved in many respects owing to foreign money.

George Soros Foundation (mentioned earlier by abbreviation ISF) was the first one which provided a support for Russian scientists at the very initial stage of the market transition and the first one which implemented the support on the competitive grant base in Russia. ISF supported thousands of scientists. 33 Internet university centres were established. In the most difficult for us period of the middle of 1990s grants of the "Open society" Foundation were very essential both for individual scientists and the research organisations and educational institutions. Tens of millions of dollars were spent on the development the Internet-centres and grants for scientists. It was not so much for the state scale, but in conditions when the state did not allocate practically anything it was essential.

Foreign grants (mainly of the US origin) helped greatly to develop new approaches for SSH development in Russia (the IREX Consortium for the Humanities and Social Sciences, the Kennan Institute, the Carnegie Corporation of New York, the John D. and Catherine T. MacArthur Foundation, Ford Foundation and others).

Now the joint scientific programme "Basic research and higher education" of the Ministry of Education and Science of the Russian Federation and the American Civil Research and Development Fund (CRDF) is being realized.

In last years, some new tendencies outlined in the activities of foreign organisations and foundations in Russia. The first tendency consists in a reduction of the absolute volume of financing from the foreign foundations. Reduction in the charitable support allocated through foundations is compensated by a growth in contractual forms of co-operation based on direct contracts of Russian institutes with foreign organisations.

Relative density of foreign financing can also go down due to a growth of internal volumes of financing, first of all from industrial resources, however the business-sector in Russia makes a very low investments in R&D.

Main directions of R&D, continuing to be supported by American governmental sources, focus on the areas of conversion into civil research in various forms and programmes of scientific exchanges. At the same time the programmes of exchanges become to a great extent dependable on the US government level initiatives.

The majority of organisations wish to have a more restricted choice of priority areas for the support. These areas should be agreed with the Russian side prior to the start of relative projects. The increasing number of organisations seeks for involvement of Russian scientists in their programmes as experts.

The greater coordination of programmes between western organisations is also on the agenda. There should be elaborated joint approaches of these organisations, eliminated excessive duplication, as well as found ways for better utilization of financial resources.

Since 2002, a Forum of donors operates in Russia. It is a Russian organisation (non-commercial partnership) with its own statute, mission and strategy of development. One of the Forum's objectives is assistance in formation of the Russian philanthropy and for the coordination of activities of foreign structures. We observe the emergence of interactions between foundations – joint financed programmes of several organisations (for example, cooperation of MacArthur Foundation, Carnegie's Corporation and CRDF).

The increasing interest is caused by areas, the support of which could bring visible and practical result. The foundations are still strongly motivated to support reforms in S&T. It is expressed in steady financing of institutional projects – creation of research universities and centres excellence, formation of elements of innovative infrastructure, support of large telecommunication projects.

The number of foundations, paying special attention to the support of young scientists and post-graduate students, is growing.

The forms of financing are being diversified. Together with grants foundations start using the combined approaches: conclude research contracts and render a various kinds of service (training seminars and other events).

Russia has great opportunities for cooperation with the EU in the social sciences and humanities (SSH.) Today in Russia hundreds of projects of different scale in SSH have been realized. Most viable of them have been supported by resources from various international and Russian foundations. The evidence to that is the initiation by western science foundations of a lot of programmes for making more active the research component of the Russian SSH. One of the vivid examples is the CASE (Centres for Advanced Studies and Education) Programme implemented by the ISE-Centre (Information. Scholarship. Education).

5. National approaches to the evaluation of scientific capabilities

Science and innovation policy remains a field where there is still considerable uncertainty about what would work best under any given set of circumstances. The government should therefore undertake targeted and weighted interventions requiring rigorous evaluation and review at regular intervals, as well as it should have willingness to drop initiatives that fail to produce results.

The Western approaches to the evaluation of scientific capacities became widely known in Russia due to ISF activities in 1990s. One of the prominent features of the most scalable initiative of ISF, the programme of long-term grants on scientific research, was a classical western model for distributing grants on the basis of *an open competition of projects and their evaluation by international experts by means of a peer review*. A special significance was originally attached to this programme as one of main objectives of the Foundation was just in assistance to the development of new approaches to organising and financing research.

Principles of the organisation and management, used in this programme, had a long-term value for the Russian science. Further on some of the applied approaches were adapted by

Russian state scientific foundations. The main innovations that promoted the introduction in Russia of a new system for the organisation and financing of research were the following:

- Direct support of scientists, instead of organisations through the system of competitive grant financings. The main criterion for the selection was the quality of projects presented for the competition;
- Introduction of international expertise of projects in form of peer review. The expertise was independent, anonymous, in most cases experts were not compatriots of applicants. The mechanism of examination used the experience of the National Science Foundation of the USA and American National Institutes of Health. The fact that the evaluation of projects was practically for the first time carried out mainly by foreign experts gave Russian scientists a feeling of greater impartiality and justice in results of the competition.

Besides the mentioned innovations connected actually with implementation of the programme of long-term grants, ISF used lots of basic approaches in the organisation of its activities, important for the development of new principles of management in the Russian science. Among them it is necessary to note such as flexibility in the management structure, integrated approach and interrelation of the internal programmes, the developed system of public relations.

Introduction of a western model of financing in science meant that there were used not only new mechanisms for distribution of resources but also new ethics of interrelations (conflict of interests, observance of confidentiality, etc.) and even a new approach to what should be considered as a fundamental problem and how to approach to its solution. According to western concepts even a fundamental problem should assume any concrete result in the foreseeable future.

At present, the institute of expertise now used by the Russian organisations and agencies allocating grant financing on research cannot be recognized independent and impartial. The analysis shows that there is a great variety of evaluation methods, approaches to the selection of experts, organisational procedures and systems for decision-making on financing.

In the former USSR mainly departmental examination was used, and the practice of peer review was not applied. Such competitions as for example for fulfilment of projects of the state scientific and technical programmes were considered opened, but however in practice it was one more form of support of institutes as a whole instead of individual researchers and research groups.

The second typical element of the mechanism of the Soviet expertise was presence in this procedure of two stages. This combination of an anonymous expert estimation and discussion of applications at advisory councils was usual. It allowed changing the value of experts' judgment. In some foundations in Russia the final decision is taken by administrative bodies not taking into consideration the scientific level of a project.

Evaluation of research results and evaluation of the effectiveness of relative budget spending take on special significance now. For making effective administrative decisions in the Russian science and education there is a need to create a system for an objective evaluation of results of scientific activities such as the use of the index of citation (the ISI Science Citation Index (SCI) and connected with it Journal Citation Reports (JCR) have been used for a long time in science of science and recently in management of science).

Table 14. Share of Russia in total number of publications in the leading scientific journals of the world (according to ISI)

	2000	2001	2002	2003	2004	2005
Share of Russia in total number of publications in the leading scientific journals of the world (according to ISI) - %	2.9	2.4	2.5	2.6	2.7	2.9

Source: Ministry of Education and Science of the Russian Federation

SCI (and its Internet-version Web of Science – WOS) reflects basically publications on basic science in leading international and national scientific journals. SCI is distributed on CD-ROMs and enumerates about 3600 journals with the limited depth of archive supplied on disks. WOS is distributed in the Internet, it contains articles since 1945 and consists of three parts: Science Citation Index Expanded (more than 5900 journals on natural sciences), Social Science Citation Index (more than 1700 journals on social studies) and Arts and Humanities Citation Index (more than 1100 journals on art and the humanities). In total WOS covers more than 8500 leading reviewed journals of the world.

It is necessary to note that the use of SCI for the analysis of the Russian science gives far from being full picture and accordingly cannot be considered as quite objective criterion, as only a small part of the Russian journals is processed by ISI (Table 14). In total about 70 Russian journals, basically published in English or having an English version, are presented in SCI, whereas for example about 1500 American journals are presented there – 40% of the total number of indexed journals. At the same time, only the list of the Russian reviewed journals recommended by VAK (Supreme Attestation Committee) makes about 1000 names, whereas the general number of scientific journals published in Russia is at least several times more.

One can not judge a level of Russian journals or the general level of Russian S&T by a relatively small percentage of the Russian journals, represented in SCI. There are other objective and subjective reasons among which it is worth to mention, at least, the following.

Language barrier. SCI basically oriented by English-speaking journals or at least journals giving bibliography and summaries of articles in English. Many Russian journals including rather well known in the Russian scientific community do not give such opportunity that sharply reduces their chance to get in the list of journals indexed by the SCI service.

Besides, even in case there is a summary but no full text of an article in good English foreign scientists experience difficulties in understanding the results of the work that leads to sharp falling of citing of these articles. In spite of the fact that English language is actually an international language for scientific communications some part of the Russian scientists does not know English sufficiently to publish their works in the leading foreign editions.

Selection of journals on the basis of the citation index. SCI selects journals for the inclusion in the list on the basis of their impact-factors reflecting total citing of articles published in the given journal. At the same time it is known that features of national mentality can lead to an essential distortion of the picture. So, for example, an American scientist with other things being equal will most likely refer in his article a work of his American colleagues (about 70% of references) rather than a work of a Chinese or Russian scientist. At the same time, a Russian researcher, on the contrary, with greater probability will prefer to refer works of foreign scientists published in the leading foreign editions. As a result the impact-factors of the Russian journals can be considerably underestimated.

Level of Russian journals. Selection of journals for SCI influences as well the quality of journals, their conformity to the world standards, a regular print, presence of bibliographies for each article. The average number of references for an article in Russian journals, by some estimation, does not exceed 10 what is almost 2-3 times less than a corresponding parameter for journals included into the SCI list. Some Russian journals are published without the lists of quoted literature.

Recently the increasing influence on the level of citing renders the availability of electronic versions of scientific journals as they considerably expand the audience of scientists having a potential opportunity to familiarize with the results of works, published electronically. Great importance is not only the fact of presence in the Internet of an electronic version of a journal, but also what popular international specialized scientific search systems and bibliographic databases include the given edition. Russian scientific periodicals in this sense are far behind their leading foreign journals.

Features of scientific development in different areas. There are scientific areas, which are being developing rather locally and they are to some extent closed within the limits of a

country or region. Especially it is brightly shown in some areas of SSH. In this case an external citing of these works is much less than, for example, in the field of more internationalized natural sciences.

It should be noted that not only Russia but also other not English-speaking countries are facing similar problems. So, for example, from more than 4000 Chinese scientific journals only 30 are represented in SCI, i.e. less than 1 percent.

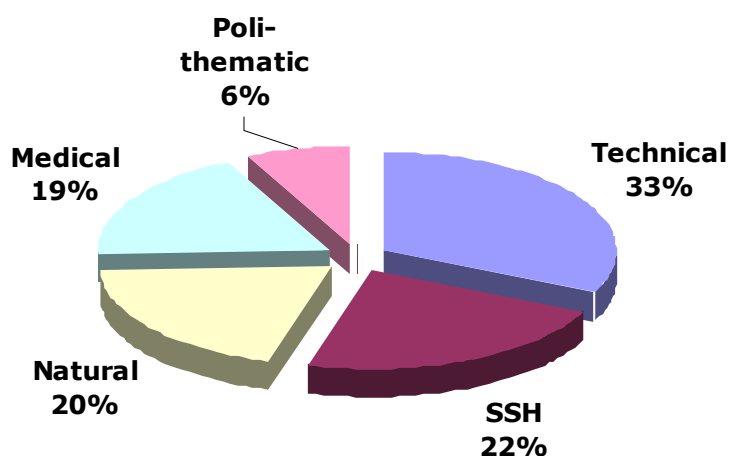
One of the most interesting Russian Citation systems worth to be mentioned, which development comes to an end now in the RFBR, is “The Index of the Russian Federal Foundation for Basic Research” created on the basis of scientific publications provided by grant recipients together with their scientific reports under the projects. This Index contains data about almost 200 thousand Russian researchers – participants of the RFBR funded projects and competitions since 1993. This Russian Index covers no more than 40% out of the whole stream of publications. Developers of the Index affirm that in the best part of the Russian scientific production is observed in it.

At present, another Russian Scientific Citation Index (RSCI) is being created. It will have the best coverage of the Russian journals. The major principle to be incorporated in RSCI is the analysis of scientific activities of Russian scientists and organisations, instead of the analysis of publications in the Russian scientific journals.

To make an objective evaluation of research activities and to define a total citation index of Russian authors it is necessary to consider all streams of publications in leading Russian and foreign scientific journals.

Russian scientific and technical journals presented in the Internet. Chart 2 shows that technical editions – 33% of the total number are best presented. Natural sciences, SSH and medical journals occupy approximately equal shares – about 20% each.

Chart 2. Allocation of Russian scientific publications by fields of sciences



Source: Electronic Science Library, ltd. Research report for the state contract No.02.447.11.7001 of 31 May 2005

6. Challenges and prospects for the support of SSH in the regions

Support of science in regions is one of the important current priorities in Russia. The widespread position of experts consists in the fact that uniform distribution of grants on the territory of the country represents an embodiment of a “democratic approach” to support of scientists. Thus, inevitable for such policy restriction for the leading Russian scientific centres – in Moscow and St.-Petersburg – are treated as “democracy in conditions of limited resources”.

The embodiment of this principle represents a challenge as it is imposed on the developed territorial structure of scientific potential and on a key principle for the selection of projects in funding organisations when the level of the application is to be determining. The results of distribution of grants by regions show that the main scientific centres (Moscow and Petersburg regions) have the greatest number of individual grants and joint projects. The same results are characteristic for the foreign research grants.

Among grant recipients from the Russian S&T funding organisations the share of teams from scientific organisations and higher education institutions of Moscow makes about 60% – this parameter correlates with the statistical data about concentration of S&T potential in Russia.

The analysis shows that there is no strong administrative regional policy in competition of grants on research projects (both individual and collective). Only for some very rare competitions a special regional-oriented policy is pursued. The most successful are the initiative where local authorities are mostly interested in.

Rather productive for the regional development are the government programmes of creating centres of collective usage of scientific equipment and programmes simplifying access of researchers from regions to information resources of the main scientific centres.

Table 15. Subjects of research in CASEs

Name of CASE	Subject of Research
1. Centre for Advanced Study and Education Kaliningrad State University	"Russia and Europe: Past, Present, Future"
2. Centre for Advanced Study and Education Novgorod State University	"State, Society, and Individual in the, Russian Cultural Context: Values Dimension"
3. Centre for Advanced Study and Education Saratov State University	"Phenomenology of Power in Russia: State, Society, and Individual Destiny"
4. Centre for Advanced Study and Education Voronezh State University	"Dialogue and Continuity Among Cultures in Contemporary Society"
5. Centre for Advanced Study and Education Tomsk State University	"Eurasian Frontier: Inter-Cultural Community and Communication System"
6. Centre for Advanced Study and Education Far East State University	"Russia and Asia-Pacific Region: Comprehensive Security, Conflicts and Cooperation in the 21st Century"
7. Centre for Advanced Study and Education Irkutsk State University	"Siberia as Part of Russia and the World: Challenges Posed by Development Strategies"
8. Centre for Advanced Study and Education The Urals M.Gorky State University	"Tolerance in a Contemporary Civilization"
9. Centre for Advanced Study and Education The Rostov State University	"Russia's modernisation problems"

Among most vivid examples of regional research development in SSH one could mention the programme of creation and functioning of Centres for Advanced Studies and Education

(CASE) – Interregional institutions in social sciences – implemented by the ISE-Centre (Information. Scholarship. Education). This programme was initiated in 2000. The programme is supported by the Russian Ministry of Education, the Kennan Institute, the Carnegie Corporation of New York, the John D. and Catherine T. MacArthur Foundation, and the Open Society Institute (Soros Foundation). The programme is aimed at expansion of the academic research in social sciences and humanities; growth of the quality of fundamental and applied research; development of existing academic schools and promotion of emergent research SSH teams; and achievement of closer cooperation of Russian scholars with their counterparts in the CIS and other countries. The core component of the programme is the nine CASEs hosted by the Voronezh, Far East, Irkutsk, Kaliningrad, Novgorod, Saratov, Tomsk, Ural and Rostov State Universities (Table 15).

CASE programme objectives include:

- Maintain and expand Russia’s intellectual potential in humanities and social sciences.
- Assist dialogue and cooperation between the academic community, on the one hand, and Russian entrepreneurs and the political elite, on the other.
- Facilitate integration of Russian scholars in the international academic community; popularize research findings of Russian scholars from regional CASEs in the West; involve the programme grantees in international exchange and visiting scholar programmes; invite international scholars and professors to CASEs, etc.
- Introduce new research methodologies and techniques to facilitate research performed by Russian scholars in the regions; support contacts between regional universities and scientific and educational centres in Moscow, including private universities.
- Help bridge the gap between academic research, teaching and applied analytical projects; support CASEs in their efforts to use the results of research projects in education; encourage CASE cooperation with local NGOs and mass media.

The programme includes both basis financing of the CASEs and competitions of grants together with grants for young scientists. Firstly, the main resources were spent on formation of scientific libraries. Then an all-Russian grant competition for research in CASEs was added.

Evolution of the programme goes in a direction of strengthening their educational component. Now CASEs’ funding is being gradually transformed from budgetary to project financing.

Each inter-regional institution has its curator – a known scientist in the field of a CASE specialisation who consult the CASE personnel. The need for introduction of an institute of curators emerged because at regional universities SSH unlike natural-science and technical sciences were insufficiently developed. Therefore it was required to involve scientists from Moscow and Petersburg which could help with acquisition of libraries, orientation in subjects of research (from the point of view of its urgency and novelty, etc.). And thus the programme appeared to be a substantially *training project* for regions.

In future, the CASEs should become centres where complex multilateral research are carried out involving specialists of various profile, and where a certain technological chain is realized: research, seminars, writing works, carrying out field research, representation of results, inclusion of international partners, writing collective monographs with foreign participation and, finally, transforming new knowledge into teaching materials.

7. Conclusions and recommendations

SSH disciplines are more sensitive to influence of an external social context and more flexibly react to its changes. It is shown in their greater susceptibility, for example, diffusion of different ideologies, and in greater dependence on social and political order (in terms of indefinitely expressed demand) existing in the country.

In conditions of abrupt turns of a social and political course public and humanitarian disciplines potentially possess the best opportunities of operative adaptation to a new situation than natural and engineering sciences. Besides, these turns, being an object of studying themselves, create additional motivations for the SSH development.

In conditions of formation of a democratic society in Russia a lots of SSH disciplines show all basic symptoms of a rise.

Russian society in transition as unstable and developing system, shows well its potentiality, i.e. ability and readiness to generate new ideas, new structures, new movements, i.e. variants and alternatives for the development of public system, so necessary for the development of democracy, creation of institutes of civil society, development of corporate management, overcoming interethnic conflicts and for many other public problems, topical today not only for Russia and the other NIS countries but also for countries of the European Union.

Russia possesses a large S&T potential and advanced position in basic research, as well as in a number of priority areas of applied R&D, whereas social science for a long time was interpreted from a certain ideology position, what resulted in a great number of problems demanding an urgent solution. Today, social and human sciences in Russia exist in qualitatively new economic, social and political conditions of unprecedented social and economic transformation of the last decade. Influenced with new factors of internal and global character, they demonstrate now a radical but slow and difficult changing, not always fully realized and evaluated by the society.

Prospects for the development of SSH in Russia become unclear due to underdeveloped system of national purposes and values and even representations about desirable character of a social system.

Prospects for the international cooperation within the European SSH programmes are not feasible enough by the fact that the research subjects set out in these programmes, reflecting the interests of the uniting countries of Europe, are not often clear to Russian scientists, not having neither a relative life experience nor enough information.

In general, the history of Russia, as well as its present condition (and, accordingly, the structure of humanitarian problems) significantly differ from those in the other countries of Western Europe. This specificity is necessary to take into account when forming international cooperation research programmes on SSH disciplines.

The results of the EU FP6 Calls demonstrate a low participation of Russian institutions in the FP6 social science and humanities RTD projects. The reasons for this low participation should be analysed in depth. However, it should be noticed that, first, there are no incentives for consortiums to especially involve Russian partners; second, many Russian institutions are not prepared to conduct research and especially research administration in the same way as European research organisations, particularly as regard the project reporting; and, last but not least, there are insufficient links and contacts between researchers in the member states and Russia.

Moreover, the European agendas for the cooperative research with third countries and Russia in particular do not use to cover the interests and problems of Russian researchers. For this reason, the areas of common interest for all sides have not been yet defined.

The objective is to integrate research capacities of Russia and the EU and create a Common Space of Research and Education in the social sciences and humanities for the benefit of the mentioned research communities from the knowledge and expertise of the sides through joint participation in projects within different thematic fields.

In order to make progress towards promoting international research co-operation in the SSH between the EU, NIS and China there should be elaborated, strengthened and integrated joint research programmes of each side's scientific and educational institutions, as well as provided for their networking together with authorities, business and other strata of the society with wide coverage of regions with regard to the social, economic and human dimensions. There should be created databases mapping existing research potential and competencies of each side in the social sciences and humanities, covering thematic topics of ongoing projects in this area,

experts within academic centres and enterprises willing to co-operate, etc. Reliable information on scientific and educational potential of respective research and academic institutions should be disseminated for the benefit of scientific communities and social organisations of sides. A common website with an access to corresponding databases should be developed. It is necessary to provide training of experts from Russian research institutions with special emphasis on young scientists to facilitate generation of common project and joint work within international projects.

As a recommendation there might be a detailed identification of joint research interest of the EU, Russia, the other NIS countries, and China for possible international and transnational co-operation. A sample list of Russian topics of research interest for international and transnational co-operation with European research institutions is given below:

1. Towards a closer integration of the Russian research system in the European Research Area: building a Common Space of Research and Education in the social sciences and humanities
2. Knowledge-based economy in Russia and EU: comparative analysis
3. Changes in labour relations and intellectual labour market in a knowledge-based society
4. Transformation of the institute of property in a knowledge-based society
5. Economic and social aspects of struggle against "piracy" in Russia
6. Valuation and accounting of intangibles
7. Role of the state in formation and functioning of a knowledge-based society
8. Integration processes in basic research: Russia and EU
9. E-readiness of the European population to work and live in the knowledge-based society: comparative analysis of the access to information and communication technology (ICT), skills, needs and wishes to use them by population of different European countries
10. Social wellbeing and dissemination of ICT: impact of life level
11. Electronic portrait of a young European: cross-national analysis of the volume and content of electronic information young Europeans deal with
12. New approaches to human rights: Environmental human rights
13. Socio-political sustainability of a knowledge-based society
14. Intellectual potential index of a society
15. Employment in the SME sector and the entrepreneurial potential of the society: comparative analysis of the situation in the labour market
16. Controlled evolution of civilizations based on the co-relation of cultures and global demographic processes.
17. Cognitive and linguistic aspects of knowledge-based systems
18. Social and ethical aspects of technology management in a knowledge-based society
19. Development of an all-European dialogue on development of modern art and culture in programmes of distant education
20. Assessment of a civil society development in a knowledge-based society (European comparative studies on the basis of the Civil Society Index (CSI) of the World Alliance for Citizens Participation)
21. Societal ("soft") security in the Baltic Sea region
22. Research and regulatory solutions of conflicts of interest in a knowledge-based society development
23. Creation, functioning and interaction of human rights institutes in Europe including Russia
24. Social partnership and civil participation in Europe (including Russia)
25. Comparative research of activities of Think Tanks and Centres of Public Policy in the EU and Russia
26. Institutes and methods of civil education in Europe, including Russia
27. Gender dimension of socio-economic, scientific and educational policies
28. The Constitution of the united Europe and harmonization of legislation of Russia

29. Integrated European policy for rural territories in a knowledge-based society
30. Transition strategy towards a knowledge-based society at the regional level
31. Social consolidation in a knowledge-based society and a quality of human life and socio-demographic situation in a region
32. Interrelation between the intellectual potential of the society and social inequality
33. Migration as a factor of changing ethno-political situation a knowledge-based society
34. Development of research activities of talented children and teenagers from regional localities of Central and Eastern Europe.
35. Understanding knowledge and ways of knowledge “humanization” in a knowledge-based society. Interdisciplinary interface and expert-statistical systems
36. Integration of the Russian higher education in the world science and education: creation of a single concept of training of specialists in finance and economy (as an example) for international integration within the context of the Bologna Process
37. Analysis of emergence and development of the phenomenon of totalitarianism, ways of its prevention and spreading in Europe.
38. Image of the ‘other’ in mass media in the EU and Russia
39. Analysis of risks connected with the implementation of R&D policy and realization of major R&D projects in a knowledge-based economy

The united Europe openly declaring a competition with the USA and Japan in innovative sphere, has already announced a desire to use Russian potential in this global competition. Official steps in the S&T fields of the highest priority, for example in nanotechnology and new materials are being made now. At the same time Russia is not ready to enjoy full rights in the EU research projects. Firstly, the purpose of the EU framework programmes is strengthening the European Research Area, instead of development in the new independent states of the former USSR. Secondly, Russia is not capable to participate in competitions on equal with countries of the Western Europe. In comparison with the western scientists, Russian applicants are insufficiently competitive in such aspects as how to precisely set out the plan of research, organise the structure of management for the project, distribute duties between researchers, show relations between them and the organisations-participants, and give a description of results and deliverable which are supposed to be obtained. Not casually therefore the level of success of the Russian projects in competitions within the 6FP is still low: the factor of passage makes about 12%.

GRNTI disciplinary division of SSH in Russia

00.00.00 Social sciences in general

00.08.00 Social sciences and ideology

00.09.00 History of social sciences

00.11.00 Contemporary state-of-the-art in social sciences

00.13.00 Scientific communities, congresses, conferences, symposiums, in social sciences

00.17.00 International cooperation in social sciences

00.21.00 Organisation of research in social sciences

00.29.00 Awareness raising in social sciences

00.33.00 Terminology of social sciences

00.39.00 Popularization of social sciences

00.45.00 Teaching of social sciences

00.77.00 Mathematical modelling in the SSH

00.79.00 Research personnel in social sciences

02.00.00 Philosophy

02.01.00 General issues of philosophy

02.11.00 General problems of contemporary philosophy

02.15.00 General philosophical problems

02.21.00 Logic

02.31.00 Philosophy and methodology of science

02.41.00 Social philosophy

02.51.00 Ethics

02.61.00 Aesthetics

02.71.00 Philosophy of religion and atheism

02.91.00 History of philosophy

03.00.00 History. Historical sciences

03.01.00 general issues of historical sciences

03.09.00 World history

03.19.00 History of particular countries

03.29.00 History of particular processes, cases, and phenomena of human activity

03.41.00 Archaeology

03.61.00 Ethnography and ethnic anthropology

03.81.00 Subsidiary branches of history

04.00.00 Sociology

04.01.00 General issues of sociology

04.11.00 General problems of modern sociology

04.15.00 Methodology of sociology. Methods and technique of sociological investigations

04.21.00 Society as a system. Social relations and processes

04.41.00 Social classes, communities, and groups

04.51.00 Sociology of spheres of social life, social phenomena, and institutions

04.61.00 Sociology of personality and behaviour

04.71.00 Historical and regional sociology

04.81.00 Applied sociology

04.91.00 History of sociology

05.00.00 Demography

05.01.00 General issues of demography

- 05.07.00 Theory and methodology of demographic science
- 05.11.00 General problems of demography
- 05.21.00 Statistics of population
- 05.31.00 History of population. Historical demography
- 05.41.00 Distribution of population. Geographical demography
- 05.61.00 Population of the world
- 06.00.00 Economics. Economic sciences**
- 06.01.00 General issues of economic sciences
- 06.03.00 Economic theories
- 06.09.00 History of economic thought
- 06.35.00 Accounting and economic sciences
- 06.39.00 Science of economic management
- 06.43.00 Economic history
- 06.51.00 World economy. International economic relations
- 06.52.00 Economic development and growth. Planning and forecasting in the sphere of economics. Economic cycles and crisis
- 06.54.00 Productive forces and S&T progress
- 06.56.00 Social-economic structure
- 06.58.00 Reproduction structure of economy. Accumulation and consumption. Wealth
- 06.61.00 Territorial structure of economics. Regional and urban economics
- 06.71.00 Sector structure of the economy
- 06.73.00 Finance. Monetary and taxing theories. Financial institutions
- 06.75.00 Economic problems of organisation and management of the national economy
- 06.77.00 Economy of labour. Labour force
- 06.81.00 Economics and organisation of an enterprise. Management of enterprise
- 06.91.00 Economics of particular countries
- 10.00.00 State and law. Jurisprudence**
- 10.01.00 General issues jurisprudence
- 10.07.00 Theory of state and law
- 10.09.00 History of state and law
- 10.11.00 History of political and juridical teachings
- 10.15.00 Constitutional law
- 10.16.00 Municipal law
- 10.17.00 Administrative law
- 10.19.00 Information law
- 10.21.00 Financial law
- 10.23.00 Enterprise law
- 10.27.00 Civil law
- 10.31.00 Civil procedure law
- 10.33.00 Arbitration procedure law
- 10.35.00 Patent law. Industrial property law
- 10.41.00 Copyright and authors rights
- 10.45.00 Law of inheritance
- 10.47.00 Family law
- 10.51.00 Agrarian law
- 10.53.00 Legal problems in the sphere of environment protection
- 10.55.00 Land law
- 10.57.00 Forest law
- 10.59.00 Water law
- 10.60.00 Air protection law
- 10.61.00 Mining law
- 10.62.00 Law of wild nature

- 10.63.00 Labour law
- 10.67.00 Social maintenance law
- 10.71.00 Law protection bodies
- 10.77.00 Criminal law
- 10.79.00 Criminal procedure law (criminal trial)
- 10.81.00 Criminology
- 10.83.00 Corrective labour law. Penitentiary
- 10.85.00 Criminalistics
- 10.86.00 Judicial statistics
- 10.87.00 International law
- 10.89.00 International private law
- 10.91.00 State and law of particular countries
- 11.00.00 Politics. Political sciences**
- 11.01.00 General issues of political sciences
- 11.07.00 Methodology of political research
- 11.09.00 History of political teachings
- 11.15.00 Theory of political systems. In-house policy
- 11.25.00 Theory of international relations. Foreign policy
- 12.00.00 Science of science**
- 12.01.00 General issues of science of science
- 12.09.00 Science development
- 12.21.00 Science and society. Sociology of science
- 12.31.00 Scientific work. Scientific creativity
- 12.41.00 Organisation of science. Science policy
- 12.51.00 Methodology and technique of R&D activities
- 12.75.00 Economics in science
- 12.79.00 R&D personnel
- 12.81.00 International co-operation in science
- 12.91.00 Science and research in particular countries
- 13.00.00 Culture. Culture studies**
- 13.01.00 General problems of culture
- 13.07.00 Theory, methodology, and philosophy of culture
- 13.09.00 History of culture. History of culture studies
- 13.11.00 Culture in modern world
- 13.15.00 Organisation and management in the sphere of culture
- 13.17.00 International co-operation in the sphere of culture
- 13.20.00 Technical equipment of establishments of culture
- 13.21.00 Socio-cultural activities in the sphere of leisure
- 13.31.00 Library service and library science
- 13.41.00 Bibliography. Science of bibliography
- 13.51.00 Museum service. Museum studies
- 13.61.00 Protection of monuments of history and culture
- 13.71.00 Archive service. Science of archives
- 13.91.00 Culture of particular countries and nations
- 14.00.00 Education. Pedagogics**
- 14.01.00 General problems of people's education and pedagogics
- 14.07.00 General pedagogics
- 14.09.00 History of education and pedagogics. Personal characteristics
- 14.15.00 System of education
- 14.23.00 Pre-school education. Pre-school pedagogics
- 14.25.00 General education school and its pedagogics
- 14.27.00 Out-of-school (additional) education and its pedagogics

- 14.29.00 Special (correctional) schools. Defectology
- 14.31.00 Lower vocational education and its pedagogics
- 14.33.00 Secondary vocational education and its pedagogics
- 14.35.00 Higher education and its pedagogics
- 14.37.00 Education of grown-ups. Qualification improvement. Self-education
- 14.39.00 Family education. Family pedagogics
- 14.43.00 Special branches of pedagogics
- 14.85.00 Technical means of education and training equipment
- 14.91.00 People's education and pedagogics in particular countries
- 15.00.00 Psychology**
- 15.01.00 General issues of psychology
- 15.21.00 General psychology
- 15.31.00 Psychology of development. Psychology of age
- 15.41.00 Social psychology
- 15.81.00 Applied psychology
- 16.00.00 Linguistics**
- 16.01.00 General issues of linguistics
- 16.21.00 General linguistics
- 16.31.00 Applied linguistics
- 16.41.00 Languages of the world
- 17.00.00 Literature. Literature studies. Oral and poetic folklore**
- 17.01.00 General issues of science of literature
- 17.07.00 Theory of literature
- 17.09.00 History of literature
- 17.71.00 Folklore and poetic art
- 17.81.00 Subsidiary literary disciplines
- 17.82.00 Literature works
- 18.00.00 Art. Study of art**
- 18.01.00 General issues of art and study of art
- 18.07.00 Theory and methodology of art and problems of study of art
- 18.09.00 History and modern status of art, study of art, and critics of art
- 18.11.00 Art in modern world
- 18.15.00 Organisation and management in the sphere of art
- 18.17.00 International co-operation in the sphere of art
- 18.31.00 Fine arts
- 18.41.00 Music. Study of music
- 18.45.00 Theatre. Science of theatre
- 18.46.00 Mass performances and festivals
- 18.49.00 Dancing. Choreography
- 18.51.00 Circus
- 18.55.00 Variety art
- 18.67.00 Cinema. Cinematographic art
- 18.71.00 People's art (folklore)
- 18.91.00 Art of particular countries and peoples
- 19.00.00 Mass communication. Journalism. Mass media**
- 19.01.00 General issues of mass communication
- 19.21.00 Mass communication
- 19.41.00 Journalism
- 19.45.00 Mass media
- 19.51.00 Press
- 19.61.00 Television
- 19.65.00 Broadcasting

19.71.00 Use of technical devices for mass communication

20.00.00 Informatics

20.01.00 General problems of informatics

20.15.00 Organisation of information and library servicing

20.17.00 Documentary sources of information

20.19.00 Analytical and synthetic processing of documentary sources of information

20.23.00 Information retrieval

20.51.00 Information and library servicing

20.53.00 Hardware for information and library processes

21.00.00 Religion. Atheism

21.01.00 General issues of scientific atheism and religion studies

21.07.00 Atheism and freedom of thought

21.15.00 Particular religions, churches, and cults

21.21.00 Problems of religious consciousness

21.31.00 Philosophy and religion

21.41.00 Religions, churches, and society

21.61.00 Organisational and practical activities of churches

21.91.00 History of atheism, religions, and churches

23.00.00 Interdisciplinary study of particular countries and regions

26.00.00 Interdisciplinary problems of social sciences

26.00.01 Social and political conceptions

26.11.00 Global problems

26.21.00 Science and technology revolution. Science and technology progress

26.31.00 Labour