Opening Paper

The Grey System for Monitoring Self-Funded Research

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Abstract
To eliminate the defects in research monitoring in Russia a special Government decision was issued in 2006 with the idea of creating a system for self-funded research projects registration. The system was designed in the years of 2007 – 2008 and now put into operation as an integral part of the federal scientific and technical information grey literature system. Based on the output information from the system the annual summary report for the Joint Interministerial Commission specified in the Government Decision is prepared. A general outline of the system, the description of its input and output document forms and database structure are given in the paper.

Introduction
Today's global economy is often described as one in transition to a "knowledge economy", or "knowledge-based economy" which is being developed in the environment of a "knowledge society" as an extension of an "information society". The theoretical grounds for this kind of treatment as well as the very terms "information society", "knowledge society" and "knowledge economy" were put into scientific circulation as long ago as in the late sixties last century by the famous American economist and the founder of the modern management theory Peter Drucker in his book "The Age of Discontinuity" that was republished many times since then [1].

Now that the Drucker's forecast came true the decisive role of human capital in the form of knowledge and education is universally recognized as a powerful productive asset and the source of innovative solutions. In Russia of today it is well understood that the way from the backward raw materials economy to the modern knowledge economy lies through innovations generated by scientific research and applied in industry. Some burdens of the Soviet science strategies still haunt the Russian science even now and about 80% of financial support for science still comes from the state [2] while Russian business is reluctant to invest in scientific research. Also, it was typical for the Soviet science to carry out research at the widest front possible disregarding the practical results if any and this approach can not be followed today. So, new concepts are required in the state scientific policy.

Administrative measures
It is evident that the immediate aim of forming a knowledge society and an innovation economy suggests an adequate funding of scientific research and development. There has been a growth in scientific research state budgeting every recent fiscal year (except this year of 2009 when because of the world economic crisis the state budget of Russia was sequestrated including the item of science expenditure). So, the federal budget science expenditure in percentage to the total budget expenditure grew from 1,69% in 2000 to 2,27% in 2006 [3]. In absolute figures the growth of federal budget science expenditure is as follows: 72,4 billion rubles in 2006, 89 billion rubles in 2007 and 118.4 billion rubles in 2008 [4].

The figures of budget assignations to science being important it is no less important to optimize the distribution of financial means among the fields of science. To do so priorities in scientific research and critical subjects should be determined. Since there are about one hundred budget recipients in Russia - federal ministries and agencies that have their share in the total budget science expenditure to finance their scientific research and development projects - Joint Interministerial Commission was formed as a decision-making body for research policy and with the aim of working out or updating the list of science and technology priority development directions and the list of critical technologies in the Russian Federation at least once in four years.

Now there are totally 8 priority directions, for example bio-systems, energy and energy saving, information and telecommunication systems, nano-systems and materials, and 34 critical technologies like bioinformation, software design, hydrogen energy, distributed computing, nuclear energy and fuel, cell technologies, atmo- and hydrosphere monitoring, refuse utilization,