RUSSIA

Bulgak Fails to Deliver on Reform Plans

MOSCOW—Since he was appointed in February, Vladimir Bulgak, the deputy prime minister in charge of science, has been offering views on Russia's scientific enterprise that the press has described as daring and even reckless. He has suggested that the number of state-funded institutions be substantially reduced, that research efforts be concentrated on a limited number of important areas, and that the Russian Academy of Sciences (RAS) be radically restructured and close one-third of its institutes. "If RAS doesn't start to reform itself, it will be reformed from above," Bulgak said in late July. And he has backed up those statements by launching a process of evaluation and accreditation of all government-funded institutes, with a view to closing the least effective ones (*Science*, 13 June, p. 1639).

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Words, not deeds. Deputy premier Vladimir Bulgak.

Bulgak's public rhetoric raised expectations that the Russian government would commit to some far-reaching reforms when it published its long-awaited plans for the country's research system last month. But the document, drafted by the science ministry under Bulgak's guidance, disappointed reform-minded researchers, who have criticized its scant detail and lack of any timetable or deadlines. "It doesn't set up any concrete aims for the government," says Eduard Mirsky, head of a lab at the RAS Institute of Systems Analysis in Moscow.

The reform plan, published a month late, does include as goals reform of the RAS structure, encouraging technology transfer to industry within the research system, and creating regional research information centers. The document does not, however, specify how or when the government plans to achieve these goals. Mirsky also complains that it does not propose any specific changes to the scientific bureaucracy in government or in bodies such as the RAS. With so little detail in the document, "everything depends now on who will control the reform process," says Evgeni Velikhov, head of Moscow's Kurchatov Institute.

Reformers were also disappointed that the plan does not propose any increase in the share of the science budget for peer-reviewed competitive funding, coordinated since 1992 by the Russian Foundation for Basic Research. This omission is being viewed as a victory for the RAS. "During the last few years, this share was constantly growing, and it is time for us now to take a break and to sum up our experience in this respect," said RAS President Yuri Osipov at a press conference on the reform plans last month. Vladimir Fortov, Russia's science minister, supports Osipov's line, saying that competitive funding "has many drawbacks" and that it is not a universal panacea.

The overall science budget is also unlikely to grow. The planned budget for next year is about $2.2 billion, equal to this year's after more than half the total research funding was sequestered in late spring. Bulgak believes this figure is "the optimum." Apart from the Trade Union of RAS Employees, which organized demonstrations in the autumn, the research community has accepted this reduced budget with resignation. "Certainly we have to struggle for an increase of budget funding. But Bulgak's approach is realistic. Dependence on state funding is dangerous, like drug addiction. We have to be more enterprising and look for alternative sources of finance," says Velikhov.

Bulgak's evaluation and accreditation of institutions could provide some relief for highly rated institutions—if the government indeed closes those that do not score well. But researchers have been critical of uncertainty surrounding the criteria to be used. "I've been trying with difficulty to persuade the RAS authorities to use standard criteria, used all over the world, such as impact factor, citation index, and the number of papers published in science periodicals," says Alexandr Spirin, head of the Pushchino Center for Biological Research. "If I fail to convince the RAS Presidium, I will complete the reform at least in my own center on this basis."

Although he is disappointed by the vagueness of the reform plan, Mirsky says he finds it quite understandable in view of the forces ranged against reform, principally within the RAS Presidium. "The counter-reformist lobby is constantly struggling for the preservation of the status quo in Russia's research system. The former science minister, Boris Saltykov, attempted to very gradually, though effectively, introduce his reforms and was finally dismissed for this. No one wants to end one's career the same way by proposing something concrete."

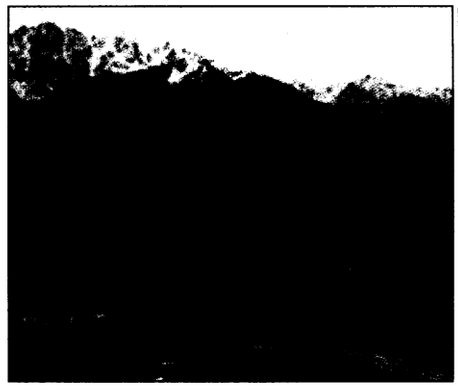
–Andrey Allakhverdov and Vladimir Pokrovsky

Allakhverdov and Pokrovsky are writers in Moscow.

RUSSIA

Thieves Target 60-Ton Neutrino Detector

MOSCOW—For much of the past year, government officials have been trying to confiscate 60 tons of ultrapure gallium that forms the heart of a neutrino detector beneath the mountains of the northern Caucasus. Late last month, armed thieves almost beat them to it. They managed to get past an elaborate security system and nearly succeeded in stealing the detector's valuable metal core. Russia's Ministry of the Interior is now conducting an investigation of the break-in under the personal control of Minister Anatoli Kulikov.



INR

Target. The remote Baksan neutrino observatory's gallium is attracting unwanted attention.

The $60 million Soviet-American Gallium Experiment (SAGE) is one of the largest research collaborations between Russia and the United States. Operated by the Russian Academy of Sciences' Institute of Nuclear Research (INR), the neutrino detector has, since the mid-1980s, been studying the flow of neutrinos streaming from the sun. Low-energy neutrinos can transform a gallium nucleus into radioactive germanium-71, which can later be extracted and counted. SAGE's 60-ton gallium detector sits in a 3.5-kilometer tunnel deep below Andyrchi mountain near the town of Baksan.

Leonid Bezrukov, deputy head of the INR, told *Science* that the break-in was carried out by six masked men armed with two machine guns, according to the account of a forklift truck driver who was taken hostage. Before breaking in,