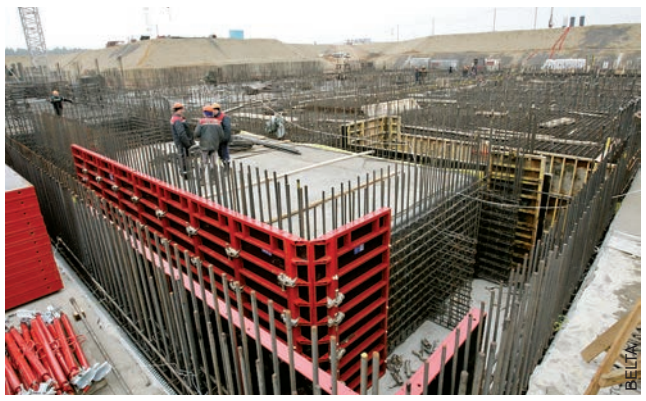


On a building site of the Belarusian nuclear power station

Everything going to plan in Ostrovets

By Dmitry Kryat

Work goes with a swing in Ostrovets. The construction of the nuclear power station is meeting the schedule; no financial problems are occurring and builders are doing their job efficiently. Our Belarusian specialists oversee almost 90 percent of all works on the site and, accordingly, control the major share of all allocated funds. Really, such serious orders envisage worthy salaries. Recently, Rosatom's Director General, Sergey Kirienko, visited Minsk to clear up some working issues.

Mr. Kirienko met the President to discuss the matter and Alexander Lukashenko began their meeting, saying, "I proceed from the fact that we've borrowed this money from Russia, around $10bn, which covers the station's cost. We've found a contractor to build the station but, due to certain discrepancies, or probably laws or some mismatch, questions have arisen. Being assiduous hosts, we must strongly hold the money in our hands, choosing the cheapest solution, without harming quality and safety. This is probably the key which I must control as the President."

Our Russian partners share this view and Mr. Kirienko asserted, "We realise the degree of our responsibility. We must build the safest station at a reasonable price, without, in any way, affecting its quality and reliability. Moreover, it must be built in the shortest possible time and attract as many Belarusian enterprises and constructors as possible. I confirm all these obligations. We are moving along this path and, generally speaking, I consider the situation on the site is fine."

Mr. Kirienko informed the President that his Corporation would use this project of a Belarusian nuclear power station to build similar plants for foreign customers. "This design is of the most modern generation (3+) which ensures the post-Fukushima safety requirements. If such an edifice was used on the day of the Fukushima disaster, no consequences of that kind would have occurred. The station would have stopped its operation but ensured safety. No disaster would have happened, as no radiation would have been emitted," he added.

According to Mr. Kirienko, Rosatom has now been contracted for the construction of 22 new power stations worldwide, with the latest agreements being signed with Hungary, Finland and Jordan. Each project costs at least $5bn, creating a total sum of over $110bn. Interestingly, Belarusian specialists are supposed to participate in the realisation of these projects. After the accumulation of knowledge and experience at their own station, they'll be able to sell these skills to foreign clients. Speaking of Belarusian specialists, Mr. Kirienko stressed, "We should admit that the Belarusian organisations, which take part in the project, boast an extremely high level of qualification, discipline and conscientious attitude to their work."

Mr. Lukashenko responded, "If we learn to build nuclear power stations, then we are ready to accompany you in building similar facilities all over the world, following your technologies." Rosatom's Head loved the idea, noting, "Really, you are right. We are ready to invite the most qualified organisations, which demonstrate the best efficiency, to join us in our work, both in Russia and elsewhere."

Meanwhile, work at the Belarusian nuclear power station site is gaining momentum and, this year, 8bn Russian Roubles worth of construction jobs are supposed to be complete which is almost double that achieved in 2013. Belarusian organisations would receive around 80 percent of the sum, with the remaining funds overseen by Russian firms.

Reality needed from results

The main criterion of the working efficiency of scientists is the impact of the results of their work on the growth of the domestic economy. This was said by the President of Belarus, Alexander Lukashenko, when he presented doctor of science diplomas and professor certification to scientific and educational workers.

The Head of State paid attention to the fact that last year was very important for domestic science. "Many lances were broken over the direction of the scientific domain of the country and its leader, the Academy of Sciences," said the President. Alexander Lukashenko noted that, when starting transformations, the country accepted that cutting-edge science is not only a matter of prestige, but also one that guarantees the national safety of the state. "It is very important not to act rashly, but to build a strong Academy and other centres of science as sources of intellectual energy, whence it is possible to get innovative ideas for the successful development of the country," the Head of State added.

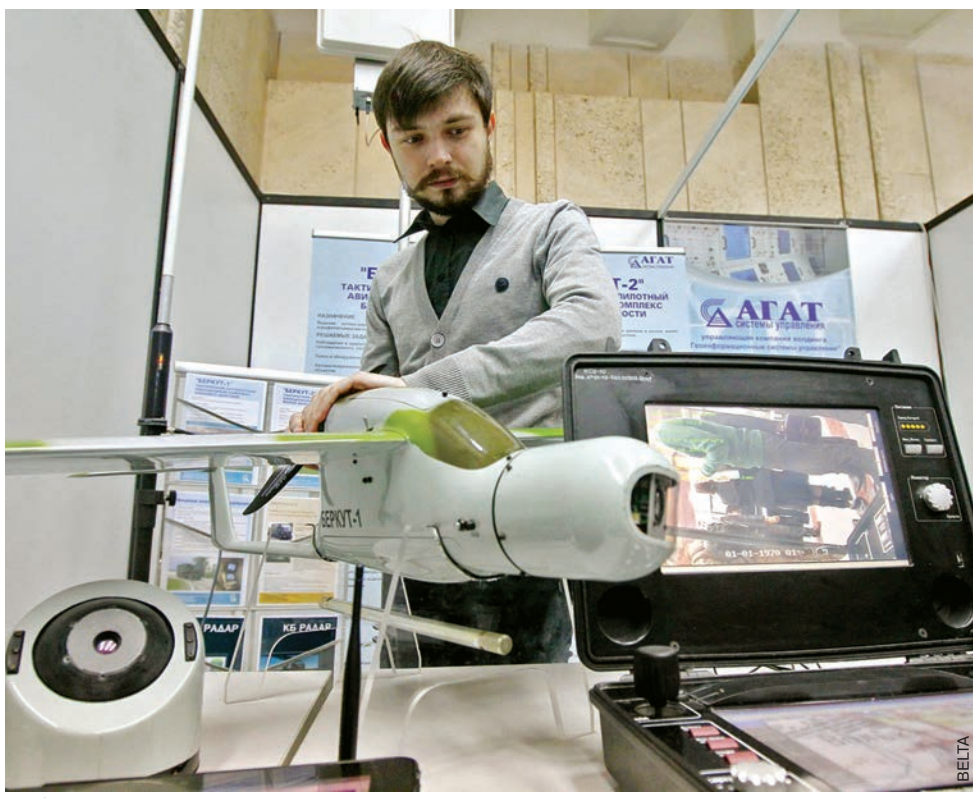
Alexander Lukashenko noted that the country tried to avoid radical, extreme measures and leaned against the opinions of scientists. They actively participated in the development of the complex programme of improvement of the scientific sphere of Belarus, calculated for stage-by-stage modernisation. According to the President, its realisation will allow it to bring the organisational structure of the scientific branch into accord with the requirements of a modern Belarus. It will also provide a priority carrying out of 'breakthrough research' focused on innovative production and development of modern information, aerospace, chemical, biological, machine-building and agricultural technologies.

Mr. Lukashenko expressed confidence that Belarusian researchers will take the most active part in its realisation. The President also pointed out that a component part of the program is the improvement of the system of preparation and the certification of scientific manpower; that it should provide an increase in the number of researchers, first of all in strategically important directions for the country, and the development of domestic scientific schools.

Alexander Lukashenko presented diplomas to authors of fundamental works and breakthrough research in the field of natural, applied and humanitarian sciences. "The results gained by you confirm that Belarusian researchers take up advanced positions in different fields," said the Head of State.

The President congratulated scientists on their Belarusian Science Day and the anniversary of the National Academy of Sciences and wished for them to have new, creative achievements and good students.

Scientific discoveries are always fresh



'Berkut-1' unmanned aircraft showcased at the exhibition of scientists' achievements

By Yuri Selivanov

The celebration of Belarusian science was a warm one. It will always be like this when, not only colleagues, but also old friends meet. There were a lot of visitors. The NAS co-operates with scientists from 70 countries, and many of them personally wanted to congratulate the academy on its 85th anniversary. There were delegations from Russia, Ukraine, China, Lithuania, Poland and other CIS countries as well as from Europe and Asia. Leaders of the main scientific organisations from every corner of the globe paid their respects.

The honoured guest of the anniversary celebrations, the Nobel laureate, the Vice-President of the Russian Academy of Sciences, Academician, Zhores Alferov, delivered a report about breakthrough technologies of the 20th century at the opening of the international *Science — for the Innovative Development of Society* scientific-practical conference In his opinion, the most interesting directions in Belarus today are quantum optics and physics and a huge potential in the field of biology, especially in its combination with medicine, information technologies and new diagnostic methods.

"I have always rated Belarusian science very high. Today Belarus is among the leaders in post-Soviet territory, first of all, because it develops on the basis of high technologies and hi-tech industries. And here, people cannot do without the Academy of Sciences," said Zhores Alferov, confirming that he is ready to take part in the creation of the academic university, while this is provided by the recently developed program of improvement of scientific field of Belarus. A similar university has already operated for more than 10 years under the Russian Academy of Sciences. The main thing in its work is the preparation of scientific manpower, education in graduate school and magistracy. According to the Nobel laureate, the most advanced systems of education, both from scientific and technological point of view, should become an important component of the academic university. According to him, breakthrough directions of the future are the unification of biology and medicine, diagnostics and information technologies. Opening the conference, the Chairman of Presidium of the NAS, Vladimir Gusakov, asked delegates not to forget that the appearance of the scientific field today is tomorrow's appearance of society. Priorities of research are to be determined taking into account the future. Fundamental research includes nanotechnologies, nano-materials, space, physics, chemistry and mathematics. Applied research should include mechanical engineering, agrarian and biotechnologies. All this should work for the country and the development of its economy.

Just on the eve of the anniversary our Academy of Sciences published the top ten achievements of the year. Physicists, for example, created a new kind of hyperbolic meta-material with unique characteristics: on the one hand, they are absolutely absorbing; on the other hand, they are absolutely leaky. Mathematicians have created new models and methods of solving stability problems. Material scientists developed the technology for reception of current-carrying paints based on nano-sized silver particles that will help in the creation of electronic schemes. The list also included works of neurophysiologists, geophysicists, economists, agrarians, art historians and historians. In order to fully display the results of the innovative activity of our scientists, the NAS opened an exhibition of the latest developments, totalling nearly 500.

During this time, the NAS also hosted the international *Science — for the Innovative Development of Society* conference.