

50 years after Gagarin, Russian space research cries out for funding

by **Andy Potts** at 21/02/2011 13:53



Russian science is aiming high – but 50 years after Yury Gagarin’s legendary space flight, the funding for space technology is lagging behind.

The modernisation pushed by President Dmitry Medvedev has prompted a flurry of investment into the Skolkovo Innovation Centre, and cutting-edge industries such as nanotechnology are benefiting from high level backing.

But efforts to recreate the commercial successes of Silicon Valley in Russia risk leaving many space programmes earthbound due to lack of funding.

Paradox

It’s a seemingly strange conflict of priorities since, as Professor Vadim Gushin of Russia’s Institute of Biomedical Problems points out, space technology is by definition innovative.

But his involvement in multi-national efforts to improve the physical and emotional well-being of cosmonauts has shown that space research does not feature prominently on Medvedev’s much-touted innovation agenda.

“Space research gives birth to many ideas and practices, especially from the field of space medicine,”

he told The Moscow News at an event organised by the International Science and Technology Center last week.

Solving problems faced by prolonged spells in zero gravity, in particular those connected with blood circulation and weakening bones, has resulted in medical advances which have found an application here on Earth.

And psychological studies of the effects of long periods working in close confinement with a small team of colleagues has knock-on effects for understanding group behaviour and inter-personal compatibility.

Low priority

But the funding priorities are steering money away from space research, even as the country gears up for a fanfare to mark Gagarin's legendary mission.

"Some ambitious projects like the Olympics or the football World Cup take up a considerable amount of resources and at the moment we can't compete," Prof. Gushin added. "The government regards the sporting arena as more important for the national spirit.

"It's not like the 60s, when both sides [in the Cold War] were led by people with a personal interest in successful space research."

Global problems

While members of international space programmes tend to feel they are somewhat removed from political tensions between earthbound governments, economic factors do have a direct effect elsewhere.

And Professor Alan Smith, of London's Mullard Space Science Laboratory, admitted that funding was as big a challenge for his organisation as for his Russian partners.

"In the UK the space agency, like everyone else, is feeling the squeeze and the next three years will be difficult," he said.

"We're hoping that in this year of Gagarin celebrations people might see space as something important again."

The spirit of mankind

For many space travel – especially projects like the on-going Mars 500 training scheme for a potential mission to the red planet, pictured above – can seem like an expensive and rather abstract drain on vital funding for more day-to-day needs.

But Prof. Smith argues that, to a large extent, science justifies itself as a de facto human achievement, regardless of the practical applications outlined by his colleague Prof. Gushin.

"There are various dimensions to it: setting a challenge, rising up to that challenge and the process of reflecting on it," he said.

"Things like Mars 500 could inspire a new generation of people to engineering and science, and it speaks to something about our humanity.

"Sometimes we have to get our heads up and not be solely interested in our current circumstances."

Related articles

- [Nano-satellite scheme to predict natural disasters](#) [18/02/2011]