

Interview with Andrey Vakhovskiy, CEO of Tetraedr

Dr Andrey Vakhovskiy is the director and chief designer of Tetraedr, a Belarusian maker of advanced radio-electronic weapons systems, various software and hardware used in radars and other electronics, and upgrade solutions for SAM systems. The company also designs and manufactures new anti-aircraft missiles. Vakhovskiy graduated from the Minsk Higher Engineering Air Defense Missile School of the Air Defense Troops, and from the Govorov Military Engineering Radio Technology Academy. He is a member of the Belarusian Engineering Academy and of the International Academy of Information Technologies.

Q: What can you tell us about Tetraedr? What is the secret of the company's success? What is its mission and the current situation on the defense market?

A: Tetraedr is one of those companies which owe everything to their own hard work. This is a fully privately-owned company, which was created from scratch. We have achieved everything through our own hard work, without receiving a single rouble from the state. We are not receiving any state financing, and we have no intention of asking for it. Looking back at the results we have achieved so far, I believe that we have chosen the right path for the company.

Of course, we are not unique in that sense; there are many successful private-sector companies in the Belarusian defense industry. Indeed, there are people and companies who have even better financial results than ourselves.

We have a fair number of contracts in our portfolio; including big contracts. We are extending our presence in the niche of inexpensive and cost-effective systems. Initially we focused on air defense systems, but now we are branching out to other segments. We are also beginning to establish presence in other countries, working in cooperation with foreign companies. We have branched out into naval and ground weaponry. Regrettably, all of this is happening without any involvement of Russian companies – I think this an unfortunate situation.

The Tetraedr product range includes finished weapons systems (including upgraded weapons and new systems of our own design) as well as subsystems and components for other weaponry. That includes radio receivers and transmitters, digital signal processing systems, optical-electronic systems with automated tracking capability, electric power supply systems, etc. In addition to our own

employees, we support about 4,000-5,000 jobs in our subcontractor companies.

We have a large R&D program at our six specialized design bureaus. But we have no intention of creating a full production cycle or making every last nut and bolt ourselves; that does not make commercial sense, and there is such a thing as international division of labor. We buy various components from various suppliers, focusing on delivering the best products to our customers.

We are now building a new facility near Minsk; it will specialize in complex and high-quality metal processing. The facility is nearing completion. It will be equipped with the latest machine tools, which we are buying from the United States and Germany. Our calculations suggest that the facility will become profitable if we can win more orders. It will enable us to cater to the demand of not only foreign customers but also some Belarusian companies, as there is existing demand for high-precision machinery in our country.

Geographically our market presence is very broad. Tetraedr has customers in every region of our planet, except North America, the North Pole, and the South Pole.

We also have excellent staff retention in our company; almost everyone who joins Tetraedr stays with us for a very long time. We employ more than 400 people. We are building new production facilities. We own two facilities in Minsk, and a new production facility will be launched this August, bringing the total footage of our facilities to about 130,000 square feet.

But we do not limit ourselves to Belarus. Our main manufacturing facilities are outside Belarus. We work on a long-term basis with the defense ministries of several countries which have given us land plots and built new production facilities on those plots in accordance with our specifications, financing the whole thing from their own budgets. One of the countries has even given Tetraedr an existing plant to use for our projects.

We conduct training programs for our customers' specialists on a regular basis. We have 100, sometimes more than 200 people enrolled in these courses, including personnel and technical specialists of the armament services. We also conduct training courses at our own company; that includes short courses and long-term training.

Q: What is your approach at the export markets?

A: When working in foreign markets it is important to build a team of like-minded people; we try to create

such influence groups before entering a new market. I am talking about companies which help us to get the project going, because doing it on our own is very difficult. Naturally, the team includes a local lobbying group, which consists of people who are native to the country in question and who speak the language. They help us to market our products and to deal with the local specifics in such areas as finance, taxation, licensing, registration, etc.

We often invite potential customers to visit our company; we think it a useful practice. Over the past several years we have been holding demonstrations at our testing range in Domanovo; these involve live firing, with the T38 Stilet SAM system being used against high-speed target missiles. Last year, for example, one of the foreign specialists invited to take part in the event personally pressed the launch button.

Q: Have you had to cancel any contracts because of some restrictions by the Belarusian government?

A: There have been no such precedents in our history. The Belarusian export control system is very liberal; it does not discriminate between privately-owned and state-owned companies. If everything is within the law, it is no problem to receive an export permit. I think there are about 80 companies [in the Belarusian defense industry] which are authorized to trade with foreign customers.

In our country, if a company is authorized to trade with foreign customers, this means that it works abroad independently and makes its own choice of partners. Alternatively, it can work via a special exporter intermediary if that intermediary has secured an order from the customer – or if it has some kind of agreement with the manufacturer.

The contract must then be vetted by an inter-agency commission as part of the export control system. The commission includes representatives of all the government agencies which have a say in the matter, and the decision is made by committee. The government can annul the license in only two cases: if the supplier company has broken Belarusian laws, or if international sanctions are in place.

I believe that the Belarusian arms exports are quite impressive; it is important to note that the country is exporting mostly newly-made output of its own defense industry rather than old Soviet stock (most of which has already been sold off). Belarus is a small country; it is not rich in natural resources, so its main asset is its people. We have to rely on our own people and our own strength alone. And I am not aware of the government refusing to give the go-ahead to any export deals.

Q: What are your company's main and future projects?

A: In addition to upgrading army air defense systems and the air defenses of key facilities, we are working on a large project for the radio-technical troops. We have already commenced work on one radar contract, and we have completed negotiations with the customer on another two contracts.

In addition, we are working on modern remote-controlled automated systems. I am talking about our A3 [multipurpose missile and gun] system. We have already secured a contract for it; one of the foreign countries has placed a fairly large order. The A3 system is not revolutionary, but it is very cost-effective – and that can be the most important consideration for our customers.

Q: What is the outlook for the T38 Stilet SAM system? When will the new guided missile be ready for that system, and who are the customers for it?

A: The missile for that system is almost ready. We are working in cooperation with a well-known company which has a good international reputation. Next year we are planning to conduct guided launches.

We have prospective customers for this system, but we undertake contractual obligations only if there is a firm order and if we are confident that the project is feasible, i.e. that we can meet the required deadline. In this particular case, all these preconditions are in place.

Q: It is no secret that over the past few years Azerbaijan has been your company's main customer. What is the state of your relations with Azerbaijan? Do you have any other customers in the CIS? Any foreign customers from outside the CIS?

A: We have never relied on any single customer, and we never will. All our customers are equally important to us, regardless of whether the contract is worth 100 million dollars or 100,000 dollars. In that sense Azerbaijan is important to us. But we also have customers who place much larger orders than Azerbaijan; these contracts are worth several times as much as the Azeri contracts. On the whole, however, Azerbaijan is a valued customer; we are making our best effort on the Azeri contracts.

As for other CIS customers, apart from Azerbaijan we have also worked for a long time with Kazakhstan; we are planning new projects with that country. We have been working with Kazakhstan since 2002, and we have earned ourselves a good reputation there. Our company takes part in all the Collective Security Treaty Organization (CSTO) military exercises held on CIS

territory; that includes the Union Shield 2011 exercise held last year. We monitored the performance of the upgraded weaponry we had previously supplied to Kazakhstan, and provided assistance to the Kazakh gun crews in getting the equipment ready for live firing. The Kazakh crew demonstrated excellent live firing performance during the second stage of the exercise.

The rest of our customers are outside the CIS. This is perfectly understandable. The financial crisis in the CIS has not yet run its course, and our customers are in a tight financial situation. Russia does not need our weaponry because it has its own weapons systems. On the whole, however, we have signed contracts with customers from more than 10 countries. We are planning to almost double that figure, as we are now in negotiations with other countries as well.

We have many foreign partners, even in the EU countries. Earlier this year we became the CIS dealer of some component manufacturers from the European NATO countries. At the same time, several Russian companies have given us the right to sell their products in countries outside the CIS. This can become an additional source of revenue for our company.

To give you just one example of our long-term cooperation with countries outside the CIS, we receive multilayer printed circuit boards from EU countries.

Q: Does Tetraedr have any Belarusian MoD contracts?

A: Our strategy in working with the MoD is not to milk them for all their worth, but, using our own financing and the ministry's specifications, independently to develop a new weapons system and enter it into service with the Belarusian armed forces.

Using our own funding, we have completed three weapons development projects. Two new weapons systems we have developed are now in service with the Belarusian army. I am not aware of any other examples of a Belarusian company funding its own product development without any firm orders from the customers.

We now have another two design projects nearing completion. One system is now being tested by the armed forces; the testing began last February. The other will begin army testing next year.

We are also scheduled to deliver another weapons system to the customer this year; we are now in the middle of the delivery-acceptance process. All these projects cost us not thousands but millions of dollars. This enables our country to make budget savings while at the same time receiving new weapons systems in accordance with the army's specifications.

For Tetraedr itself this means that we can offer new weapons systems to the Belarusian armed forces. If the MoD has the necessary funds, it buys these systems. If not, the advantage for our company is that we own the rights to these systems and we can market it to foreign customers at our own discretion. By securing one or two export contracts we can recoup the entire cost of the system's development; the price we charge to the Belarusian army is well below the prices charged to foreign customers.

In addition to supplying new weapons systems, we have also conducted deep refurbishment of a weapons system at the request of the Belarusian armed forces, and paid for it ourselves.

Q: Tetraedr is in competition (primarily for the S-125 SAM system upgrade contracts) with companies such as Oboronitelnye Sistemy (Defense Systems) and Almaz-Antey. What is the nature of your relations with these companies?

A: We do not have any business relations with these respected companies, although Tetraedr has repeatedly invited Almaz-Antey Air Defense Concern to attend the live firing demonstrations of the T38 Stilet SAM system.

I have a lot of respect for the work done by Oboronitelnye Sistemy. Previously I personally took part in contract negotiations and played a role in the signing of a contract in Egypt. But in other countries we are, of course, competitors.

Our potential relations essentially boil down to the fact that they are ready to acquire us. When I spoke to Almaz they proposed that we withdraw our upgrade solutions for the Pechora (SA-3) SAM system from the market, and focus instead on making components for the S-300 system; they were ready to give us the required technology free of charge. But we estimate that were we to accept that proposal, our revenues would have been just a fraction of what we have already achieved.

Real cooperation could begin with Belarusian companies being allowed to bid for Russian contracts. That could be the first step; after that, market forces and competition would determine the winner.

Q: Several years ago Tetraedr said it was planning to start offering upgrade solutions for the S-200 SAM system. What is the current state of that program?

A: We have no plans to start offering upgrade solutions for that system. The only countries that still operate the S-200 (SA-5) are Iran, Syria, North Korea, Azerbaijan, Turkmenistan and Kazakhstan. The S-200 is a rather complex system – and although we have the necessary expertise to upgrade it, nobody really needs those upgrades any more. The S-200 was

not a bad system in the past – but it is not mobile, and in this day and age this means a lot of vulnerability.

Q: What is your company's policy on attracting specialists? Is it true that Tetraedr hires specialists who used to work in the Ukrainian and Russian defense industry?

A: No, we don't do that. It is possible, however, that Tetraedr will open an office in those two countries. I do not rule out the possibility of opening a representative office in Moscow, provided that we launch some successful long-term projects with Russian companies.

Belarus itself has plenty of specialists, so there is no need for us to hire, on a permanent basis, specialists from other countries. On occasion we commission some one-off projects at Belarusian universities and research centers; we also buy analytical materials from specialist companies.

Q: What is the situation with upgrading weapons systems in Jordan?

A: We have no Jordanian contracts, and no presence in that market. We are not very active there because we are realistic about what we can do, about the Americans' influence in that region, and about the general geopolitical situation. I am very pessimistic about our commercial outlook in the Middle East as a whole.

Now that the United States has signed the latest contracts for missile defense and air defense systems with countries in the region, our chances there are simply non-existent. Nobody is going to allow a new player to enter that market.

Q: What is your outlook for Tetraedr in the 2015 time frame?

A: I expect us to enter several new markets. The contracts we have already signed are enough to keep us in business for the next 10 years. But we also want to diversify. We are going to develop our high-precision metal processing business. We are ready to work as a subcontractor with the Russian defense companies, including the Almaz-Antey concern, KBM, IEMZ and the Tula Instrument Design Bureau.

We also have promising projects in the civilian sector, including water treatment and purification systems, and medical devices. We are also looking into new projects in soil improvement and other agricultural technologies. We plan to create a separate division for civilian projects.

It is possible that we will set up a holding company under the Tetraedr brand. We may enter into cooperation with the leading international companies in a number of science and technology fields in which we are one of the world leaders.

We have no plans for an IPO at the moment. But we will monitor the state of the world economy, and that decision may be revised at some point in the future.

Interview by Andrey Frolov