

**ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM
JUNE 16–18, 2011**

**THE ENTREPRENEURS' LAB:PRESENTATION OF ADVANCED
TECHNOLOGIES FOR VIRTUAL SIMULATION ON LAND, UNDERWATER
AND IN THE SKIES
Building Russia's Creative Capital**

**JUNE 18, 2011 — 11:00–12:00, Pavilion 8, Conference Hall 8.2, Innovation
Hall**

St. Petersburg, Russia

2011

Panelist:

Nikolai Lebedev, President, Transas Group

A. Karachinsky:

Hello. Welcome to our Entrepreneurs' Laboratory. Our guest today is Nikolai Lebedev of Transas. I will tell you again, what it is we do. We are trying to showcase Russian companies, to talk with them about how they do business and to give them the opportunity to talk about themselves. I would say that Transas... Nikolai, it is a kind of... it was a real find for me, when I suddenly discovered that there are companies in Russia controlling a huge swathe of the global market in a given segment. Meaning that we became accustomed to the entire world being someone 'over there' and imports being the most important thing in life. Everything worthwhile is made 'there', and my discovery was all the more interesting for the fact that I have a hobby. I am an amateur sailor. I sail and, as you know, navigation and safety are very important for sailors. Once, boarding a boat, I saw an unfamiliar navigation system and asked what it was. I was told that it was the very best navigation system and they even told me the brand, meaning they told me that it was a very good Dutch company. I was also on a trip to the EU, in Brussels, when we were taken to some ships, we were on some military or paramilitary small boat on which I also suddenly found the Transas system. I asked and they told me that it was a Dutch system. In addition, another friend of mine, who has a large boat, he, too, has a Transas navigation system, but the captain is absolutely sure that it is a Belgian system.

Therefore, I want to introduce you to the company, created by a man whom—in the light of my amateur passions—I find very interesting. This is a true blue-sea captain, who sailed for 10 years as first mate, helmsman and captain, who has been through it all himself, at the wheel himself, as he plied the seas and oceans. Moreover, he has used all kinds of navigation systems. And, like all of us, he wanted to make something better, there was something he did not like, and in 1990, he decided to establish Transas. Imagine, it is 1990, and he believes he can make a navigation system better than any in the world. Today, it operates in 130 countries, controls 40 per cent of the world market for marine navigation

systems and 2,000 people work for the company. Of course, there are flaws in this St. Petersburg company, but still, it is all wonderful. It is growing. He went into aviation and then into simulators. In general, the company is growing at a crazy pace. And, today, he himself will be telling us about it.

The first question I would like to ask is, Nikolai, you are now almost one of the giants of the world economy; maybe you are reluctant to say it openly, but it is true. The company controls 40 per cent of a large market. Another 30 per cent and the Anti-Monopoly Commission will be gunning for you. How is it that you created a company of which everyone should be aware, but about which no one knows anything? This frustrates me all the time, as I want to talk about these successful things, but there you are quietly building this company, but no one knows, or very few people know about it. There are many companies that have done nothing, about whom they everyone knows, about which all of the newspapers write, about which people speak on television, despite the fact that it has not done anything. You need to do everything or an awful lot. How do you see it yourself? Why is this so?

N. Lebedev:

Well, one phrase, Anatoly, you have already said about St. Petersburg. When we are here, we understand what a good thing it is to be in a place of such beauty and culture. In the place, where so many masterpieces were created, not only artistic, but scientific as well. When we started off, the fact that our operations were based in Russia was, of course, not a marketing strength that could help us break into new markets. In addition, in the early years, when we established our first company in 1992, around our then still-Soviet company, no one took the new Russia seriously. We were called all sorts of things, like young communists, etc. Therefore, of course we made a very conscious choice for ourselves, deciding not to advertise Russia, but simply Transas. It was just that we were a company making transport security systems (that is where the acronym Transas comes

from). And this choice made it possible for us to, well, we can say, to avoid some of the problems out there.

A. Karachinsky:

It was a tactical move?

N. Lebedev:

It was, without question, a tactical move. Because in the first decade everything went pretty much like what Georgy is seeing today. Then, almost 90 per cent of everything we made sold in the international market alone. At the same time, we stayed in Russia, our entire team, all of our chief organizers have always been here, in Russia. Therefore, we went through the first stage simply under the name Transas.

A. Karachinsky:

And now? Do you have the feeling that now that you need to come out of the shadows? After all, you somehow received the public recognition from *Kommersant* as the largest business.

N. Lebedev:

We felt that 10 years ago. So, as they say, on the verge of the millennium, we just went full-scale into the Russian market and started to create niches, especially when our aviation business began to develop. Then, of course, we gradually began to make a name for ourselves in Russia, as well. And of course, we are fairly well known today in specialized niches, in both air and sea. The niches we are in are significantly larger than was stated. In a way, this is, of course, not totally a good thing, since staying at our 70 or 80 per cent when, for example, all newly built ships have our navigational system installed is wrong, probably, since there needs to be more serious competition. That is from the

point of view of Russian companies, because there is always competition from foreign companies, and we compete with them around the world, but of course when you are alone in the domestic market... well, there is something to think about.

A. Karachinsky:

Could you talk a bit about your products? Well, simply about what your company makes? It is all very interesting.

N. Lebedev:

When you came up with this whole idea for the lab, I put together a kind of presentation. More likely, an explanation, rather than just a presentation of the company, so I just want to build my speech on that. So as not to talk about what we make, but more about how and which route we took. Because I think that there is quite a lot in there. You know, yesterday I was also at a round table, where we were talking about space, and Vitaly Lopota began his speech with Newton. He said that, in principle, Newton laid out the road to space, when he calculated the speeds one would need to reach, in order to break free of the Earth's gravity and travel into space. And everything else was a journey of nearly 300 years, which we made it through, in order to prove what Newton did for us. I wanted to say that, if you extend some horizon to that which we are doing, then everything that we make is the journey that we are on. And what we make is a tangible thing, coinciding with certain circumstances in a certain place and pointing out the way.

A. Karachinsky:

We will see, right?

N. Lebedev:

Yes. Now, I would like to start my presentation. In general, it all started with the fact that we were in a time when several things coincided. Anatoly described the sea quite accurately, but the sea is also an environment where, until recently, all of the major technological breakthroughs occurred. Moreover, at all times, it was on the sea that a great many machines were invented, the steam engine and others. In other words, whatever the global revolution created, it all took place on the sea.

At the moment when we started, another revolution took place. The GPS system was launched, and I just saw when I was still working, that for a few minutes in an hour or maybe an hour and a half per day, you can rely on its position. In addition, when we saw that, we realized that navigation itself could change completely, and those paper charts, with which we were used to working, might be discarded, with some kind of electronic image replacing them, and that human action would change, and everything that technology can provide. Therefore, we started building these navigation systems. In addition, the second part of the revolution, which also took place independently of us, was that, replacing the rather large, bulky and expensive equipment, along came GPS. You could just feel this in an economic sense.

When we started off, we did not have a lot of money, and the tens of thousands of dollars we did have, which we had from doing other things, we earned pretty well, meaning, in comparison to what we were making in the maritime area. But still, by the standards of today, it was just a ridiculously small amount of money. Still, these personal computers enabled us to use an initial platform.

Moreover, the third thing that was specific to the location and the time was the liberation of intellectual capital, which occurred at the collapse of the Soviet Union, when we were able to recruit, so to speak, into our ranks many people who were dealing with the same very serious problem. They worked in Algol-68, which was the most common programming language in the Soviet Union. In addition, these people, abandoned by absolutely everyone, came to us.

These three elements enabled us to start our business and come up with the ideas that allowed us to go further. Moreover, as I said, they were simple ideas. We made what we saw, what we understood, and what we could make better than others could. This was navigation systems and electronic maps, which now seem an integral part of life, but which almost no one was making then, and which big companies like Google were not even thinking about. That is why we saw that, without maps, it would not be possible to do anything good at all. And, in the end, we did create a global map database, on which we have spent nearly five million man-hours to date. In addition, that was one of the key things that enabled us to break through into the world. And, through this, so to speak, to maintain our brand. Thanks to this move, people everywhere learned about us. Because there was really only one competitor in the world, which was at the time Sinop (the company no longer exists), Boeing and Jefferson, but there were virtually no other companies with global map databases. Google maps, if you are aware, is, so to speak, a blue background. Therefore, we invented these products and began to distribute them; we began to create a network—the first in Russia. Moreover, due to the fact that sailors are, by nature, international, we were able to set up a network of our companies. It has been more than 20 years, during which time we have managed to organize a network of distributors and dealers in more than one hundred and thirty countries, and we actively promote our products. Thanks to, so to speak, the receptiveness of this market.

A. Karachinsky:

Did you license maps to your competitors?

N. Lebedev:

Well, how should I say it, to our competition...

A. Karachinsky:

I saw a rival company that made different navigation systems, but the maps, as I understood it, are yours.

N. Lebedev:

One of the first was Garmin, and, I do not remember exactly, but sometime in the late 90s, they acquired our database. They did not have one and, naturally, we were very pleased in a commercial sense. However, from the marketing point of view it was also a good deal, I think, because, at the time, Garmin was a much bigger company than we were, so we were not really competing with them.

A. Karachinsky:

Well, I, as an entrepreneur, think it was a correct tactical move, enabling you to earn from their success, as well.

N. Lebedev:

Absolutely, we think so too.

A. Karachinsky:

This is our lab, where we speak about how to do it, how to be successful.

N. Lebedev:

Absolutely. To work, on the one hand, independently and, on the other hand, in cooperation with current leading companies, seems to me to be one of the keys to success. Because when people do either one thing or the other, they are in one way or another dependent on their position. Thus, we might not achieve what we could have achieved. However, by combining external marketing with your own, you get, I think, the best result.

A. Karachinsky:

Integration is a very important element of success today.

N. Lebedev:

Of course, it is business integration, and when we plan our journeys, we should not be afraid; we should not cower, thinking that we are such and such, that competitors are all around us and that we have to fight against everyone. No, of course, you need to fight, but also to work together. After all, it is as active a part of the word as any other.

A. Karachinsky:

It is interesting that the four men who have spoken here today in the entrepreneurs' lab—Pogosyan, Andrei Biryukov, Yo-mobile and Nikolai here—represent large companies doing complex things, have all said that integration today is one of the most important keys to success.

N. Lebedev:

Yes, and I am about to move on to the next item now. Integration and overcoming certain internal barriers means that you cannot live very long on a single idea. After a while, you have to update and accommodate them constantly. So, in the second half of the 90s, we put our plans together and began designing aviation technology: avionics, simulators, air traffic control systems. In about the same way we did in the maritime area. It is another thing that we were already known by then. Of course, it was not as easy for us to go the international route into aviation as we went in our maritime division. To do this, however, there are objective circumstances that contributed to our Russian market, unfortunately, at this point very quickly declining, and we did not find that initial springboard, so it took us quite a long time, bit by bit, to put together everything that was possible. Because, the aviation market, in general, is spread around the world.

Nevertheless this barrier has been overcome, and we hope to continue in this area.

In general, that was the next idea, upon which we also spent a few years, and somewhere by the middle of the first decade, in 2000, we had put together a good product range. And most important is the understanding that, if at the first stage, we relied on software, in the aviation industry, we began producing combined engineering items—hardware and software—so to speak, in one package, which has now become, especially with the emergence of iPads and the like, the main route.

A. Karachinsky:

Well, here is my question. Look: in modern aviation today, when I spoke to Pogosyan, they all confidently say that the avionics have to be very good. We buy some of the avionics from someone and produce some ourselves. Can we make better avionics? Israel is considered the best country in the world for avionics, as I understand it. Can we compete with them?

N. Lebedev:

Well, of course, because even knowing who makes these avionics there—and we do know—Russian engineers there have quite a big role, so there is really no question regarding how to make them. Another question is that the rules and requirements, which we have established first for our own market, should meet international standards, in order to avoid loopholes, including for the manufacturers and our customers, so that they can buy something different from the others. That, by the way, is the formula that I introduced at the time. Moreover, we must not only harmonize the existing rules, but also actually embed them into the state regulations, so that they are not just on paper, but reality. Because, one way or another, as we all remember, our aviation sphere used to have, as they say, "a military slant", so many of the regulations that we,

the international companies, they, nonetheless, break those rules using the huge loopholes in military regulations.

A. Karachinsky:

Have those decisions already been taken?

N. Lebedev:

No. On the face of it they have been approved, but they are not implemented.

A. Karachinsky:

Understood, OK.

N. Lebedev:

And one more idea on our journey. We created a market for, as they say, high-end simulators. In both the maritime and aviation areas, we also created a niche of about 50 per cent of the global market. In addition, in many countries, including the United States, we hold an even bigger niche of the commercial marine market. That was also a kind of step forward, because there we needed those visualization processes, too, that Georgy showed and the integration process of a large number of systems, including hardware. We have learned to imitate a very large number of devices that, in general, has allowed us today to bring our level of engineering up to a pretty high level. And, based on that idea, we came up with another idea, which today has already started coming together pretty actively worldwide, and we have now over 20 countries where we are introducing, to a greater or lesser extent, this technology

We have started working in an area we call edutainment, which is a kind of combination of a multizone-type educational level with entertainment, where the younger generation absorb serious information, among other things, via these game situations. Moreover, all of this is dealt with in a group, round table style. In

addition, we have found a way, which Georgy already spoke a bit about in the previous speech: visualization of all the existing databases. And this leads to one of the questions—what is next? You see, there are now an enormous number of databases being compiled and when you begin to work on them for real, it turns out that there are so many errors in them, and sometimes the real in there is mixed in with the semi-virtual. Then with these technologies for infrastructure facilities, the so-called spatial databases, we begin to see and perceive the most important thing, and use that, for which we are moving into the electronic world. And all of that made it possible for us to take another step.

A. Karachinsky:

Let us talk about the commercial side. From the perspective of the head of the company, what is the most strategically promising of these four areas?

N. Lebedev:

Something you have not seen today—mobile robots.

A. Karachinsky:

And out of the things we have seen?

N. Lebedev:

From what you've seen, I think we need to promote our avionics, our aviation technology, and not only at home, which is obvious enough, but so that we restore a sense of comprehension and pride, and ambition, that we really are a major player in aviation and in space. That is why we really hope that we can get over this hump. Moreover, if we take the next year, it is probably aviation technology that will be large-scale and realistic. We need to get back that the world where we had 17-18%. I am not saying that there will be that much, but at least five per cent, so that we get back to the niches at which I can allow myself

to have a go at. Because we have all we need for it, including the engineering resources.

A. Karachinsky:

And what should the turnover of the company be, in order for you to get back to that five per cent?

N. Lebedev:

I mean overall the whole of Russia, if we take the turnover of companies, then nowadays it stands at about \$300 million, and, in general, that is substantial turnover, because with that you really can have an impact on certain market segments, and a number of people. In general, if you take high technology, it is also pretty significant. It is clear, once you have achieved this; you have to carry out some kind of transformation, because when we started to establish the company we were just a few people from the Baltic Shipping Company, from our leading academic institutions, and we cannot work like that today. When we created our company and became players in the market, the thing that you need and that we like is the risk, arising from the fact that it was created by a small group of people and might go in the wrong direction...

A. Karachinsky:

You mean it is already big business.

N. Lebedev:

Yes, we certainly came close to this edge, and of course, we realized it several years ago, but then, probably, the crisis got in the way somewhat, since high tech is still an area that demands, in a good way, a certain silence around it, in order to avoid these storms, and so that people do not have to deal with questions like, "to eat or not to eat" or "enough or not enough."

A. Karachinsky:

You did not cut costs, but grew your business?

N. Lebedev:

Yes, because these high-tech businesses are still in a constant struggle to stay in front: when you change one technology for another, you feel a little initial discomfort. This is a common thing, even when we start working out, then after we have lost or gained extra weight; we feel a good kind of discomfort, so to speak, which then gives us satisfaction. Therefore, in general, I understand that this question of what we are going to do next would have been asked, no matter what.

We have taken a step that we, without question, see not as final step, but a transitory one. The potential that we have already created, the results that, I hope you have seen today. I am ready to talk more about it to anyone who is interested. We have found such a partner, there, Sergei sitting here, but it is really, naturally, a group of industrial investors, which has already done a lot on the road to implementing complex projects with a major international focus. We are also united by the fact that one of Sergei's main businesses is international shipping, in particular, container shipping, which demands the most profound knowledge and understanding of the international market.

A container is a kind of, as they say, deer in the headlights, which is highly dependent on market conditions.

The other projects that we are implementing convinced us that these are the right partners, and today, when they have come in with us at 25 per cent, I hope that we can implement what is written here. New horizons are opening up for us, and we will be able to master the opportunities that I have already talked about a little bit. And to achieve what it will be interesting not only for these four people, and not only, perhaps, for our new partner, but also for others, who will be able to

transform what we have done, into a vital part of the global technology infrastructure.

A. Karachinsky:

Well then, that is probably it. I would like to congratulate you. Overall, I think you are very lucky. I would note a certain trend, in that our esteemed industrialists have begun to move from nickel, from oil, from food products and even from infrastructure projects, to technology. Meaning, today we have Andrei Biryukov, in whom Prokhorov invests, and Sergei Generalov—in Transas.

N. Lebedev:

Sergei, did you take a long time to make a decision? Biryukov said here today that Prokhorov made a decision in the space of two weeks.

C. Generalov:

Well, actually, these decisions were taken with Nikolai, and over a long time. Because we met for the first time to discuss the possibility of the investment immediately before the crisis. Then we kind of froze for a couple of years, and exactly one year ago, during the St. Petersburg International Economic Forum, Nikolai did not even go that year, whereas I came specifically, and the company is located a kilometre away from this building. And we had the next conversation with him on the possible partnership. We spent a year checking each other out, meeting his partners, discussing various possibilities for partnership and cooperation, and then yesterday, I am very proud of the fact that yesterday, during the Forum, we signed an agreement to acquire a significant share of Transas. I am proud of myself and of my company, that we achieved this agreement. I am certainly proud of our now common offspring, because together we can definitely do so much more.

A. Karachinsky:

Wonderful. I cannot help ask a question that I always ask everyone. Because what we are discussing here is a company built on human capital not financial, but human. People are the main value of these companies. So, Nikolai, you are growing, yes, growing very seriously. In order to grow like that, you need ever more clever people, who, in fact, are the ones that have to make this growth happen. So what is your feeling about what is going on in our country with human capital? With engineers: what is good, what is not good and what would you do, in order to develop more effectively?

N. Lebedev:

I have already spoken about this perspective: when you start right from Isaac Newton, you realize that even some of the problems at this particular time and place are things that they went through. Because overall, of course, we hope, or rather, are counting on something that is created over centuries. In this respect, I do not think that there is anything catastrophic happening today.

A. Karachinsky:

Meaning, for those leaving the education system, that the education system is good. I always say that, when I watch television, or I read, that an enormous number of people believe that our problem lies entirely in the education system. We take in from there, I do not know, fifteen hundred people a year, and we are very happy. Therefore, I think that maybe we are not recruiting properly and in the wrong place, from the wrong educational system, but we are clearly recruiting good people. How do you do it?

N. Lebedev:

An example just came to mind: I think we were in Singapore, at one of our Russian forums, and there was a similar topic there, too—something, about the

year 2050. I myself asked the question, "What do you think the most important thing is, in order to have a future, to be the leader or among the leaders?" The answer was that people are the most important thing, but that intellectual capital was now flowing in the direction of America. If we somehow manage to, at least, stabilize this flow, then we will have our own personnel. We need to use somehow the influx of personnel, of people, who—by dint of historical ties to us—meaning from Ukraine, Belarus, other countries, and even Europe, which is also close to us in many areas. We are going to work on some goal of our own, that we can build up and then push forward into the world. In this regard, St. Petersburg is a very harmonious place. There are many professionals here and we have experienced times when we suddenly needed people with a strong background in optics and within a year, we were able to recruit two professors, who previously worked at LOMO and we created with them a unique product, which we have now brought to both our domestic market and to the international market. This product is an aircraft searchlight, primarily for police or military helicopters, in a segment now dominated by a single American company.

A. Karachinsky:

So, this is a breakthrough?

N. Lebedev:

Well, yes, a breakthrough that has happened precisely because we were here in St. Petersburg, we invented this item and pushed it through, very quickly and very decisively.

A. Karachinsky:

Still, the answer to the question about people. Meaning, are you happy with the people you have?

N. Lebedev:

You really need to fight for them, to seek them out, but they are definitely out there and will continue to be out there.

A. Karachinsky:

Wonderful. We have five minutes left. And you have the opportunity to ask Nikolai Lebedev a question. Let us start with the far side.

From the audience:

Nikolai, a question about the relationship between private business and government. It is clear that governments all over the world, including ours, are not seen as the most efficient proprietors. In today's market, the state invests huge money in establishing a plethora of state corporations. At the same time, private capital is beginning to lose out, in terms of investments in the development of its own advanced technologies. That is the problem of the contradictions with our government. Today, it is simple: either you give up shares in exchange for capital investment, or you look for investors. Well, you have a private business as an investor, but you are still in a partnership with Rosoboronexport. How do you see the further development of the relationship between the state and private businesses in high technology?

N. Lebedev:

I see that there has to be a balance in any case. It is absolutely clear that during the crisis, private businesses in high technology lost some of their influence and working intensity. The government came in here and, overall, it was a good thing.

From the audience:

May I ask a question? They came to help? Or to take away? If the state comes to help, it is good, but when it comes to take?

N. Lebedev:

Well, you know, I am an optimist in this case. They always take, roughly speaking, whatever they are offered.

A. Karachinsky:

No, they always take what is good, nobody needs the bad; we know it.

N. Lebedev:

That is true, but you know, I do not want to talk about that now.

A. Karachinsky:

So, the state comes in to help, right?

N. Lebedev:

Pretty much, yes. It mostly came in to help. It is another thing, when you begin to depend completely upon that help, making yourself vulnerable. That assistance should be taken up in a well-defined way, to the extent that it is needed. If you overdose on that help, if you have become addicted, if you have, so to speak, relaxed your own muscles, the infrastructure weakens.

A. Karachinsky:

Is constant idea generation important?

N. Lebedev:

Absolutely. As soon as you sign up for 10 years with one client, the chances are that it will turn out badly. When we received a large order from Gazprom, for example, we pretty much immediately understood that it was a drug, and even manifested itself in certain things, but I am not going to talk about it now.

A. Karachinsky:

Where do you set the limit on a single client for a company that is looking to grow quickly and become a world leader?

N. Lebedev:

Well, 10-15 per cent is the maximum, and 5 is preferable.

A. Karachinsky:

There was another question over here. Go ahead, please. They will bring you a microphone.

From the audience:

Three hundred million dollars is the turnover, but what do you think the capitalization is?

N. Lebedev:

The capitalization is, maybe, within the limits of the turnover, but we are certainly not a Google-oriented company, and it is about the same order number.

A. Karachinsky:

Yes, having someone like Sergei is a good sign. Nikolai will continue to develop the technology, and Sergei will be thinking about how to make this company, how should I say, more interesting, more valuable. I tried to use the words "more interesting", to be more politically correct. Of course, we want our companies to be the most valuable in the world. Any more questions? There is another question there. And another one here, sorry.

From the audience:

Would you be so kind—unfortunately, I was not here at the beginning of your lecture—please tell me, due to the fact that people receive a great deal of information visually, do you agree that the global demand for visualization and visualization products is growing? For the visualization of all technological problems and solutions?

N. Lebedev:

Well, there is no doubt about it. It is just like 40 years ago, when the first databases started appearing, in the first stage—digital. But now it all goes into cloud infrastructure, so it is just like the transition from one stage to another. It is just that everything goes through this. Therefore, we should not be asking questions, but just work and do it today.

A. Karachinsky:

And the last question, because we already have to finish.

From the audience:

You mentioned a relatively new term – edutainment. Could you please tell us what plans you have for the future? Are you planning to expand the edutainment in your company, or are you going to stick with what you have now?

N. Lebedev:

Naturally, we hope to build it into a business stream of the same size and importance as our maritime and aviation streams are today. It will be a very dynamic area, and perhaps, even one with higher risks than we were able to allow ourselves in the aviation and maritime sectors.

A. Karachinsky:

Thank you very much

N. Lebedev:

I said that space is a thing that sort of ties everything together. I started with that and will finish with it.

A. Karachinsky:

From Newton. Thank you very much. Tonight, our guest in the Entrepreneurs' Laboratory has been a real leader, a global technology leader. We have never before had as a guest a company controlling 40 per cent of the world market in a given segment. So forgive me, but we in our laboratory award you the title of Global Leader. It is a good thing that we have companies like Transas.

N. Lebedev:

Thank you for that assessment. I will be sure to pass it on to all of my friends and colleagues.