

**ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM**

**JUNE 16–18, 2011**

**TALENTS FOR THE NEW RUSSIA: SKOLKOVO MINDSET**

**Building Russia's Creative Capital**

**JUNE 18, 2011 — 12:00–13:15, Pavilion 4, Conference Hall 4.3**

**St. Petersburg, Russia**

**2011**

Building an ecosystem that nourishes and rewards dynamic and innovative firms is key to Russia's modernization efforts, but the global war for talent impedes that effort. To achieve this goal, Russia and its enterprises need to review national education and corporate training systems, social support and complementary immigration policies, and the skills that will be needed to boost entrepreneurship and innovation. This task is not only for companies and government bodies: it is critical to raise the profile of talented and successful entrepreneurs who think in a new way. Ultimately the whole territory of Russia needs to become a large source of such people.

**Moderator:**

**Vladimir Solovyov**, TV presenter

**Panelists:**

**Esko Aho**, Executive Vice President, Corporate Relations and Responsibility, Nokia Corporation

**Dr. Craig Barrett**, Co-Chairman, Skolkovo Foundation Council

**John Chambers**, Chairman and Chief Executive Officer, CISCO Systems Inc.

**Dennis Nally**, Chairman, PwC International

**Victor Vekselberg**, Chairman, Renova Group; President, SKOLKOVO Foundation

**Front row participants:**

**Igor Agamirzyan**, Chief Executive Officer and Chairman of Executive Committee, Russian Venture Company OJSC

**Klaus Kleinfeld**, Chairman, Chief Executive Officer, Alcoa Inc.

**Julia Li**, Founder, Chief Executive Officer, HCD

**Ivan Nechayev**, Executive Director, Russian Navigation Technologies OJSC

**Rafael Reif**, Provost, Massachusetts Institute of Technology

**Andrei Volkov**, Rector, Skolkovo Moscow School of Management

**Vladimir Zelman**, Co-Chairman of Anesthesiology Department, University of Southern California

## **V. Solovyov:**

Ladies and Gentlemen! Let us begin our panel discussion.

It was totally unexpected for many of us, when it suddenly became clear that the country was divided into two unequal camps. The first camp is that of people who are convinced that, in principle, any talk in our country about innovation, modernization and Skolkovo is meaningless, because it will never work; it is some new toy of the powers-that-be, whose only purpose is to find money, steal it in an elegant way, and promote themselves at the same time. And why are they trying to do that, when things were so good here in the past? There is another tribe that is rather strange and incomprehensible to us, the people who are suddenly saying, “No way! We live in a country where, despite chronic pessimism and many unsuccessful examples, it is still possible to get things done.” First we must understand what we want to do and how. And this is where a split – a rift – occurred in the consciousness.

Yesterday, Mr Vekselberg and I took part in a radio program, which was simultaneously broadcast on three radio stations owned by the VGTRK holding company. A large audience. And it suddenly became clear that people do not understand what we are talking about when we discuss Skolkovo, when we discuss innovation and modernization. Everyone talks about what he or she thinks is important. Therefore, since we have been joined by outstanding specialists on this question, who are seriously and professionally engaged with it—I would be very grateful if they would, among other things, convey their professional viewpoint to the widest audience, in order to alter the trend of public consciousness, if only slightly, and to foster the hope that Russians need so much. Not the belief that the government will not be able to do anything anyway and will steal all the money, but the hope that there are also positive examples in our country. This will benefit not only certain specific individuals, but the country as a whole, as well as those youngsters who are watching and thinking about what they are going to do: live in

Russia, to believe that achievement is possible here, that our country not only has a great past, but will also have a great future; or hurry over to Sheremetyevo-2 , get a ticket out, and get a job, having written their résumé, having thanked the remnants of a once-great Soviet school system for their wonderful education.

I ask you all to keep to the time limit, but to engage in lively discussions. You can see that we are sitting in a configuration that somehow reminds one of Noah's Ark. This does not mean that only those who are innovative will be saved, but it means, at least, that there are many who do not understand innovation, just as there were once many who did not understand Noah. But he was proved right. Nevertheless, I advise everyone to stick to, let us say, three minutes for initial remarks, and then we will be able to quickly and punctually have a discussion and give the audience the opportunity to participate as well. Because I see many distinguished people with fire in their eyes, and would like to give them all this opportunity.

Let us begin. It would be silly not to take advantage of my official position here, so I will immediately turn things over to Mr Vekselberg and, if you will excuse me, sit down (at my height it is dangerous, as I may disappear from view, but at least it allows me to concentrate on what we're talking about). And so, dear Mr Vekselberg, allow me to ask you a question that has probably already become the talk of the town: What does it mean "to think with the Skolkovo mindset"? And is it possible that the whole country might suddenly begin to think with the Skolkovo mindset? How is this different from the traditional Russian Potemkin village mentality?

#### **V. Vekselberg:**

Thank you for the opportunity to speak first. It is a great honour for me. I will try, given your statement that many people do not understand what the Skolkovo project is, to answer this question first, in literally one

minute. I think that hardly anyone would disagree that Russia still has an extremely high scientific and intellectual potential. It is concentrated today in the academic environment, in the university environment, and I think everyone in everyday life, in one way or another, encounters the fact that Russia still has great intellectual potential. Another question is that, despite such great intellectual potential, no one will argue with the other aspect: that we do not know how to realize it in specific gains, end products. To be sure, we still launch spacecraft. Yes, we know how to build good nuclear plants. However, in many other things that are part of our lives today, we have significantly fallen behind. Therefore, we have a problem: how to monetize, how to commercialize this great intellectual, scientific potential, how to convert it into the tangible products that are so much in demand in everyday life. The challenge before Skolkovo is to learn how to close that gap, to learn to transform the knowledge we possess into the tangible products that our country needs today.

How can we do it? There is probably no single answer. We understand that this requires some basic components that we want to concentrate at Skolkovo. For that, we need a new type of education and new models of educational processes. Therefore, an important element is the creation of the Skolkovo Educational and Research Centre, which combines the process of education, research and elements of the commercialization of this research. We hope that MIT university will become our partner—the Chancellor is present here today—and I think we will have more to say about that. The second element, which we definitely need, is market drivers. We need companies that occupy leading positions today and determine the vector of the area of a particular application of the ideas and innovations that are ripening in the economic environment. That is why we want to attract large corporations to Skolkovo, which will help us determine the basic areas

of work, establish modes of cooperation, and provide venues for research centres where these ideas will come to fruition.

The third and, actually, the most important element: we want to have a large number of young, aggressive, ambitious, educated people who, with so-called startups, will really try to meet the challenges before them. With that in mind, we are building a large industrial park, which will support these start-ups in the areas we have identified, of which there are five.

Last but not least: we need an environment in which to live and work, so the city we are building must meet the most modern requirements and provide a person living and working there with normal conditions for living, for raising children, for medical care and for recreation. However, in so doing, we do not want to create some kind of exclusive oasis. We want to build a hub, a pilot project, so that in the future, having taken our lumps and knowing where the bottlenecks are, we will be able to extend our experience across the country. But even at this stage, we realize clearly that the concept of the physical Skolkovo is secondary to the concept of the virtual Skolkovo. It should be an environment for communicating, networking and living together.

In order to keep within my time limit, I will say that we firmly believe that success is only possible if we have the right kind of people, who have the Skolkovo mindset. What is that? To put it very briefly, I think these should be people who believe in themselves, believe in a goal, believe that they can overcome the many the obstacles along the lines of, "No, we must not." This is important; only people who have more fire in their eyes than those we usually see in queues or in stores. We must have people who are very well educated, who have a high degree of knowledge and intellectual potential. You know, there is a concept in sports: a "swagger". It means that even if you have the right skills, you will never become a champion if you do not have a swagger and are unwilling to take reasonable risks. Because they are swaggerers, these

are people who can reject authority, to prove that they are smarter and more capable. It is possible that not all of them will succeed, but they should have that feeling.

And finally, we need people who have the Skolkovo mindset, and who, I would say, speak English—do not take me literally, but the idea is that the environment there must be international and as open as possible to communication with the whole world, because we are building a global project.

**V. Solovyov:**

Thank you very much. Well, to give those with the Skolkovo mindset the chance to speak English and to hear the views of the Co-Chairman, I think it appropriate for Dr. Barrett to answer the same question.

**Dr. C. Barrett:**

Well, when I was here a year ago and we first started talking about Skolkovo, there was a perception that it was going to be another closed Soviet-style secret city and it would have golf courses, and that would solve the problem. Everyone would go there because of the golf courses, and also because they were told to go there and be entrepreneurs.

I think we have come a long way in the last twelve months. As Viktor said, and I want to support everything that Viktor said in his comments, Skolkovo is really an environment to take young people and give them the opportunity for success. And that opportunity for success comes via the opportunity that exists there, above all the environment. And that environment builds on several things: it builds upon the rich educational and research heritage of Russia, which is excellent. It builds upon a virtual as well as a physical location, because all of Russia has to participate. It builds upon the opportunity for people to take their ideas and turn them into intellectual property, and bring that intellectual



property into the market place. It builds upon the presence of venture capital; that whole cycle of entrepreneurial character, from angel investors to venture capital to the commercialization of ideas.

What is trying to be created in Skolkovo is this environment. And it is an environment that is not suitable for most of the people in this room, because you are too old, but rather for young people – the next generation. And they have to see opportunities. And that is really what Skolkovo translates into: the opportunity for the next generation to be creative, entrepreneurial, and to take their ideas and bring them into the market place and create wealth for Russia... wealth for themselves and wealth for Russia. This is exactly what we are trying to do in our work with MIT, work with the venture capital community, work to protect intellectual property; to work to make Skolkovo not just a physical entity, but a virtual entity, able to reach every corner of Russia.

**V. Solovyov:**

Well then, let us end our panel discussion, as a result of our being too old. I suggest that we switch the audience and bring in kindergarteners, so that every word falls on ground that will bear fruit.

For many Russians, the main question is still: is Skolkovo a toy or some kind of real opportunity, one that will have an impact on the Russian economy? I know that Mr Nally represents a company that has conducted its own studies—PwC spent quite a bit of time analyzing how the Skolkovo project would affect modernization and change in Russia's economy. Dennis, would you care to share your observations now?

**D. Nally:**

Good afternoon everybody. It is great to be here with you. We maybe need just some context to set up my comments. In our recent global CEO survey, where we talked about the top issues facing business

today, the whole issue of talent is one of the top two or three issues that the CEO community, across the globe, is very much focussed around. The skill shortages that we are all very much aware of really are the biggest impediment to sustaining a company's growth moving forward, and as a result, companies are focussed on this issue and, importantly, governments are focussed on this issue. How do you really attract and retain talent to really drive success into the future? That is why, when we step back and look at Skolkovo, as has been mentioned already, we see this as an opportunity to really attract the best and the brightest in the future. A talent magnet if you will. Think about the new generation of students coming out of school today. Craig spoke very well about it. This is the most technologically savvy group of individuals we have ever seen. In fact they speak a totally different language, they have a totally different way of communicating.

Skolkovo is an interesting way to create an environment that will attract that type of talent in the future. That is the positive aspect of it. The sustainability of this country is going to be developed and will depend upon the ability to really attract and retain that kind of talent and think about new ways to develop the idea of creating new environments. An environment which is less hierarchical and more flexible etc., is going to be the environment that the best and brightest really want to come to, and hopefully, prosper in.

We see this as a great illustration of the Russian government being focussed on the whole issue of attracting and developing talent.

## **V. Solovyov:**

It turns out that the only way to break with bureaucratic mechanisms and unleash the innovative potential of our country—that is, everything in which the state interferes—is for the state itself to do it. Meaning that the state will now become aware of its sins, repent, fall on its chest and repeat Raskolnikov's confession on Sennaya Square, instantly ushering

in an era of universal modernization. There is a feeling that in recent times everybody is just telling the state to get out of the economy.

Nevertheless, there is a crucially important question: what are distinguished major foreign companies looking for in Russia? Are they looking for our Russian brains? Let us divide the brains into two parts: academics and entrepreneurs. Or is it just a wonderful opportunity for PR and to make friends with this most fearsome power at such a difficult time by flirting with them, to gain quite tangible benefits in the end? As far as I know, John, you have a very optimistic attitude, for some reason, about the future of Russia, which distinguishes you from many Russians. So, Mr Chambers, what are looking for from Russian brains? What kind of brains do you need?

**J. Chambers:**

Thank you very much. To put it into perspective, and to look at where CISCO has done this before, 15 years ago we bet on China. We initially made a billion-dollar commitment; we bet on Shanghai, we saw a government that was willing to change to a great educational system, to a great entrepreneurial system, that was really taking off.

10 years later, we invested USD 16 billion, and it has been very successful for us. Five years ago, we saw the same scenario in India – a leadership by government leaders that understood that they had great intellectual firepower, they were moving into entrepreneurship, there was a willingness to work in a win-win relationship with the best in the world; and we invested a billion dollars into India.

Five years later, it is growing at 40% per year for us, and we bought a lot of companies in India and in China.

A little bit over a year ago, we saw the leadership in this country, both at the level of President Medvedev, Arkady and others, but also people like Viktor from the business community – they saw the same transition opportunity. And they were not trying to model themselves on the past,

they were saying, "Let's build for the future. Let's capture the great entrepreneurial spirit of our people, but realize that we have to bring something new to this, this innovation, if you will".

We made a billion-dollar commitment in 5 phases. 12 months later, this has moved much further than we had anticipated. It is going very, very well in terms of the creative ideas. And for those in the room who think that Russia is not innovative, we together launched a Skolkovo innovation I-Prize award. The first time we did that in the US, we only had 3,000 participants. The second time we had 10,000. When we did it in Russia, how many do you think we got the very first time? 10,000 people from 170 cities. 3,218 ideas were just spectacular. The three winners did everything, from a whole new way of toys interfacing with wireless capabilities—interaction—to thinking about when you really interact with a computer, you should not be interacting with a mouse, you should be interacting with your eyes, and have the computer follow you.

The third-placed winner said, "How do you take digitalization of pictures and video, and be able to classify it and move it based upon its images?" And so you see a tremendously creative society.

So, what we are in it for, is we think this will be one of the key future countries that will play a key role in high-tech, that will build on an innovation centre. And I do not want to underplay the risk; this is hard work and takes a lot of heavy lifting. But it is a country willing to make that sacrifice. And so what we see is a country that is going to transform itself, and we are going to invest very, very heavily. We are committed to putting R&D here, we are going to focus on video and also smart goods as our first initiatives, and we are here because we think it is a win-win environment for all sides involved.

Our track record has been pretty good on this. We have purchased 145 companies around the world. We really believe in this country, and we

believe you will be a model for the future. So we are all-in <inaudible> optimistic with a very good track record of being right.

**V. Solovyov:**

That is scary, that is scary.

<inaudible>

**J. Chambers:**

A quick note, if I may. This is something that you may want to think about more.

In Silicon Valley, when you fail, it is the red badge of courage; in Russia when you fail, it is almost something that you cannot recover from.

Anybody not willing to take risks and realize that you can fail, is not going to get ahead in life. You have got to play life up on your toes, and so you have got to be willing to take the business risk and tell everyone it will not necessarily happen in one year.

When I bet on a new idea, it takes me four to five years before it comes to market, and another year before it is a billion-dollar product. So, it is a willingness to fail and not having that fear that I think is so important to this project.

What Viktor and others are doing now, they are minimizing that risk of failure, and they are really doing it in a large scale.

**V. Solovyov:**

If something suddenly goes wrong in Russia, we will ruin, apart from the project, this optimism, too. But I hope that this time all will be well. Mr Aho, you are...

**D. Nally:**

Please let me make a brief remark...

## **V. Solovyov:**

Mr Aho, you are in a privileged position, because you can come to the Forum practically in your own car—although not in your own boat. Because Finland is right next door, and is unexpectedly showing great, big Russia, that somebody still remembers Vladimir Ilyich Lenin with gratitude, at least for the liberation of Finland, for the opportunity for Finland to show what real innovative business is. You already found independence some time ago in Russia. What you are looking for now? What kind of brains do you need?

## **E. Aho:**

Thank you so much for inviting me to participate in this Forum. How many of you were here before 2006? I was here in 2004 or 2005. And when we are speaking about modernization, I have to say that I have seen radical modernization happen.

This Forum is totally different compared to the first experience when Clair McGriffin invited me to participate in the 2005 Forum. So things are changing. We can see things are changing when we have innovative people and risk takers as well. I fully agree with what Mr Chambers said about risk taking and innovation. They are critical components of success. What we are trying to find here... by the way, I came by train. It is also an innovation.

I was here last time in St. Petersburg on Wednesday. So I was signing a deal with Viktor, and then I returned back to Finland on Wednesday evening, and now I am back here. Last night I arrived by train again. I can strongly recommend it. It is very good – a traditional but innovative way to travel.

But why are we here? Many of us have read a book written by Malcolm Gladwell called *Outliers*. And he emphasizes the fact that there are five ingredients needed for the success for an individual, for a company, and for a nation. What are these five ingredients? The right timing,

revolutionary technology, right talents, a risk taking capacity, and finally, the right ecosystem. And we are looking at these five ingredients or dimensions for success. I think it is exactly what we are looking at in Skolkovo.

I believe that Russia is able to solve the first of these two challenges quite easily. The timing is correct, perfect even, I would say. The revolutionary technology is there, and I believe that your partners are able to assist you to get it, so that is not a big obstacle. But the right talents? I think that you need more people who have not only an academic degree, but who also have the capacity to operate globally, and secondly, who have multidisciplinary talents. And I believe that Skolkovo can assist in that. Risk taking is critical, as is venture funding in this business environment so that Skolkovo is able to assist in that.

And finally, the ecosystem, I believe that we are actually... we are primarily working on the ecosystem. There is very limited funding in the first place, but I believe that if this works, we will be able to operate with the same principles all over Russia.

And finally, I am a former politician, and I think it is very, very important—especially for political decision makers in Russia—to understand that the dividend is not coming next year, or it is not coming in 2015. This is a long-term approach. If you only think about the next elections, this kind of effort will not pay off, and that is critical from a political perspective. But if that long-term perspective exists, both on the business side and on the side of the government, I think it is going to be a real success story for Russia.

## **V. Solovyov:**

Thank you very much. Well, we have just gotten used to waiting, and are firmly convinced that dividends do not come quickly—unless, of course, we are talking about the era of the '90s. The question is a different one: it is one of understanding who will receive the dividends.

Here, I think, it is quite appropriate to ask Zhores Alfyorov, our great scientist, Nobel laureate, Deputy in the State Duma, and a person who knows more about science than probably 99.9% of the population. Mr Alfyorov, a specific point of view has now emerged, that the condition of modern Russian science is such that, alas, it is not generating a flow of innovative ideas. Do you agree? And does the Skolkovo project have the right to life? Are the hopes that are being placed upon it justified?

**Z. Alfyorov:**

Thank you. First of all, I want to say that we could talk about Skolkovo for a very long time, and in a three-minute speech, of course, you really cannot say anything. I wrote a rather long article about Skolkovo, in which I also outlined the problems and history of Silicon Valley, and our answer to Silicon Valley in our time, and the current situation. This article was published on April 28 in my favourite newspaper, which perhaps not many of you read, *Soviet Russia*, with its marvellous editor Valentin Chikin.

I want to tell you the following. When I was asked to be Co-Chairman of the Skolkovo Scientific Advisory Board, I accepted the offer immediately. I did so for the simple reason that I do not see any more important task for the country today than the revival of the high-technology industry, which used to exist in Russia, with which we competed successfully in the military domain, but not only the military. I must say that all this modern, so-called post-industrial society means, first and foremost, the development of information technology. The discovery of the transistor in the USA, the laser in the USA and the USSR, silicon chips in the USA, semiconductor heterostructures in the USSR and the USA. Information technology developed on the basis of these discoveries, along with the mass of technologies that are booming everywhere today, including in Finland, the United States and in many other countries.



Immediately, the question arose: but why Skolkovo? We have the Novosibirsk Akademgorodok, a wonderful centre, which retains its significance to this day and where excellent work is underway. We have Zelenograd, Dubna, Sarov, Snezhinsk. Skolkovo, however, has a right to exist for a very simple reason. First of all, we need to develop high technologies and their widespread application today, and for that we need a new ideology. Skolkovo—I have been repeating this and wrote it in the article—is not so much a place, as an ideology. Second—I agree with you here—the Skolkovo project was proposed by the President of our country. He proposed Skolkovo, rather than Dubna, or Akademgorodok, and what the President proposes in our country today is entitled to great success.

**V. Solovyov:**

That is politically very wise.

**Z. Alfyorov:**

Now we need to create a Skolkovo Research and Education Centre. Today, this is simply a requirement of the times: a completely new approach to graduate work and to interdisciplinary graduate studies, with very serious academic programs, not just research programs. One of the pioneers in this is my university, which I established in St. Petersburg, the only academic university that belongs to the Academy of Sciences. Today there are other very good examples. When I established it, I thought I was a pioneer. I spent six or seven years battling our bureaucracy, so that the university would receive at least a minimal budget. However, I learned later on that such universities already exist: Kanazawa in Japan, where I went to get my PhD, and the Asian Institute of Technology near Bangkok.

A very important point for us is that Skolkovo must be a product of international cooperation—this is a very important component for us, which was previously difficult for us to implement. Science is always international, and it was international in our country too, except for a certain period when there was a lot of classified and secret work going on, immediately after the war; but it was the same in the USA at that time. Science is international; we have to do it together, and our Skolkovo Scientific Advisory Board is an example of an international approach. Its co-chairs are your humble servant and Stanford University professor Roger Kornberg, an outstanding biochemist, born into a unique family: the father received the Nobel Prize in 1959, his son in 2006—and dad lived to see that happy moment. But this is done through international collaboration. Science is international; it is not done by placing an order with MIT, Intel, or other companies: come over here and do a good job. Skolkovo can only succeed on one condition: that we do it together and we do not place orders with you. Rather, you work with us to help us, using your experience to develop high technologies, breakthrough technologies and new directions. And so it is extremely important that our foreign partners understand that they must demonstrate that they are not in Skolkovo to make piles of money; that they are not on a search for Russian talent to take home and use for themselves, but rather so that together, with our excellent traditions and powerful existing bases, we will develop science, technology and innovation in our country.

**V. Solovyov:**

Thank you, Mr Alfyorov. So I suggest that we take off our expensive suits and throw on tunics and set off to Skolkovo on foot. But not in a Lada Kalina, or people would think you were actually supporting the Prime Minister and his ideas. Mr Alfyorov, you have nonetheless not elucidated some very important issues which are, unfortunately, quite

touchy. After all, Soviet science, and much of American science, in particular academic science, has de facto always served at the behest of the defence industry. Is there not a fundamental contradiction here? On the one hand, there are the needs of the military-industrial complex, which cannot be international. On the other hand, there are the interests of academic science that you are talking about, the international resonance of which you demand.

**Z. Alfyorov:**

I would like to say that, despite the very heavy losses we have suffered in Russia, the Russian Academy of Sciences has retained its scientific potential and the structure of its scientific organizations. We are implementing a significant number of very important studies in the Academy of Sciences. In times past, our nuclear program greatly advanced our science. I can say that it was the biggest innovation project in Russia, which not only advanced armaments, but also many other areas of research. It was extremely important that, at that time, scientific researchers were considered a high priority, no matter what they were working on. At that time, the salary of a research fellow, having just received his Candidate of Science degree and having become a senior research fellow the next day, was three thousand roubles—the same salary as the director of a large factory. By the way, this was one reason that many youngsters, once they got out of school, went into science and tried to achieve certain results.

As for our innovative project, its staffing problems were solved for us by Abram Fyodorovich Ioffe, founder of the Soviet school of physics, who understood early on that modern physics is the basis of new technologies. And it was Ioffe's school of physics that also determined that success after the war. The staffing problem for the Manhattan Project was solved by Adolf Hitler, insofar as it was driven by foreign scientists who had emigrated to the United States after Hitler came to

power. Throughout our history, even during the Cold War, relations between Soviet and American physicists were very good. Our governments, on both sides, prevented us from holding joint symposiums and seminars, but we did it anyway. We developed science, and together, in 1986—I remember this very well—we organized opposition to Reagan's Star Wars. One of our common arguments was that we do not need secrecy again. We do not need to be separated again. We have just finally been able to do interesting work together, so let us continue.

#### **V. Solovyov:**

Thank you. I would like to just mention, Mr Alfyorov, that when you talk about entrepreneurs, you think they should be not be in it for the money, but when we're talking about scientists, we dream about the good old days when they were paid a lot. Anyway, let us deal with money objectively and say that entrepreneurs are not obliged to work for the salary of a junior research fellow of the Soviet period.

Ivan Nechaev represents Russian Navigation Technologies, a company that has managed to break through, no matter what. How difficult was it to build an innovative company in Russia? Which is more difficult: finding talent or cutting through administrative red tape?

#### **I. Nechaev:**

Thank you for the question. I think it is difficult to build a company in any country. To build an innovative company is many times more difficult, especially in Russia. Because when you build an innovative company, you still know neither the product, nor the market. You have to be prepared that you will take off and crash. And you have 3-4-5 years to convince the world that your technology, the product that you are bringing into that world, will improve it.

Our company was lucky in many ways, because we were in the right place at the right time. Thanks to the fact that our market was just starting off, and venture capital financing was just starting in Russia, we concluded agreements with the venture capital fund VTB Management and Assets, and with the Russian Venture Company, and we were able to attract funding.

Another interesting thing from the past two days, while I have been at the Forum, is that our company operates not only in Russia; we see the world globally, and from time to time global centres of innovation come to us with proposals to relocate our company headquarters to their locations. Just the other day, I spoke with representatives from the Netherlands, and yesterday I spoke with representatives of Skolkovo, and what pleased me was that the conditions offered by Skolkovo are much more attractive than those offered in Holland or in other countries. That is very nice.

As for talent, I think it difficult to find talent everywhere. Maybe it is a little easier to train talent in Russia, thanks to the basic education that we have here. Nevertheless, as for administrative problems, especially for young companies, young innovative companies—this is a serious problem, and we have felt the effects. Furthermore, I would like to say that one of the points we made at last year's IPO, was simply that because the company will now become public, and therefore the brand will become familiar to people, it will be much easier for us to work in this market. That is why it is the fundamental issue.

**V. Solovyov:**

You held an IPO?

**I. Nechaev:**

Yes, last year.

**V. Solovyov:**

So you received the Order of Capitalist Labour? Did things get easier?

**I. Nechaev:**

Yes, you can see that in the structure alone.

**V. Solovyov:**

That is, in your gut feeling?

**I. Nechaev:**

Yes, it can be seen even in the structure of our revenue—the share of large, public sector companies in our company's revenue has increased many times. It is most indicative.

**V. Solovyov:**

And how did you break through the red tape? Did you bribe them? Did you call up a friend?

**I. Nechaev:**

That is a very good question. No, I think the question here is the following. When you are a young company, a new company, when you are involved in large government or commercial tenders, you definitely need to have a name, a brand, to be taken seriously, to be treated seriously. Last year we participated in most of the requests for tenders in our field in Russia, but we almost never succeeded; but as soon as we became known, they started to take us seriously. We have shown that there is a market and that this market has become transparent. In fact, we are the first company in our market that has held an IPO and has shown the rules of working in this market.

**V. Solovyov:**

So you will not answer the question?

**I. Nechaev:**

No.

**V. Solovyov:**

I understand. Russian know-how, that is clear enough.

Mr Vekselberg has just announced that a crucially important decision has been made. I remember that it was just a year ago that negotiations began with MIT. And if everything goes right, then in a couple of dozen minutes there will be a solemn signing ceremony. But here is a question for Mr Volkov: does Russian education support talented people? And will the Skolkovo Institute of Technology alone be able to improve this situation, even with such valuable help as that of the cooperation with MIT?

**A. Volkov:**

Certainly not alone, and what Academician Alfyorov said demonstrates that we need a series of educational institutions that are first-rate, interesting, ambitious and, in the words of Mr Vekselberg, have "swagger". Yes, of course we have had difficulties in our education system over the past 20 years, and not minor ones. Right before this session, there was a discussion about education, university education, and everyone agreed on one thing: we have to invest more in it. To be specific, we need to add roughly 1% of GDP, at a minimum, to what we now spend on education. But to do this, we will have to revamp the country's educational structure. New universities have to emerge, and the rules governing existing ones have to be changed. In this sense, in answer to your question – of course not. Maybe it is not very modest on our part, but we are doing an experiment on ourselves. I am referring to

the Skolkovo business school. For six years, we have been building new educational institutions, starting from zero.

**V. Solovyov:**

Excuse me, but if I remember correctly, this "zero" expresses a sum of several million dollars and the many distinguished people who gave these zeros. So those zeros would have to be the starting point.

**A. Volkov:**

Vladimir, we are playing fair here. All these zeros came from private sources, not from the state budget.

**V. Solovyov:**

Literally a new definition of fairness, right?

**A. Volkov:**

Yes, and it is very significant, because people are spending their own money on education, rather than public funds, which I think is a sign of a different attitude to education in our country.

There is a very important idea here. Yes, the minimum requirement is a very worthwhile, good, basic education, but there are two other components that we have to learn how to manage, namely, to operate internationally, which is not at all trivial. The cultures differ, not to mention a different language, a different attitude. And the second minimum requirement, strange though it may seem, is long-term risk-taking. That culture, from what I can see, working now in a business school, in a management school, is not yet very much in evidence. Everyone wants results right away, but this—we have to be in this for the long haul. And certainly educational institutions have a role to play in cultivating this attitude, this attitude toward life. That will be the next stage of development of the educational system.



**V. Solovyov:**

I understand. When you talk about having to be in this for the long haul, are you trying to convince us now, or the sponsors who doled out tons of money? Because one participant in this project calculates that Russia actually cannot have many of such educational institutions, because the budget does not allow for it.

**A. Volkov:**

That is also why it is necessary not to rely solely on the state budget, but to look to the private sector as well.

**V. Solovyov:**

Mr Zelman, you are very well informed about the reality of the two worlds, separated by oceans. Do you think the Skolkovo Institute, Skolkovo as such, can change the current situation, or will that not be enough? I know that you usually give marvellous, brilliant speeches, but still, we are supposed to have lunch soon. So I beg you not to take offense, but to keep yourself more or less within the time limits.

**V. Zelman:**

First, I am absolutely certain that this will be a success, and I will tell you why. Maybe I am here by accident: I am basically a practicing physician, with 53 years in the field of critical care medicine. Either I see someone breathe his last breath, or my colleagues and I know that we are saving the patient. In my 35 years living in the USA, I never broke my ties with Russia, and I suffered when my colleagues here were unable to achieve something. Only a couple of the institutions, with which I work all the time—the Institute of Blood Circulation Pathologies at the Novosibirsk Akademgorodok, and the Burdenko Institute—have become major international centres, because there are enthusiasts there. They created opportunities for young experts to achieve their

goals. Colleagues very often come to me with proposals; they are unable to carry them out here. The bureaucrats turn them down. Quite recently, on national television in America, they showed an excellent device, on which we worked here for five years—an instrument that is being tested in a hospital in San Diego, which can sanitize an infected environment. This is a very big problem. Here, however, we were not given the chance. The device now exists, but no one is buying it. There are many such examples. I hope that what is written will come true. I think this new project will give an opportunity to these people, who try to get something done any way they can, and will help them.

Second. Of course, any such innovation should be profitable. Doctors are not capable of that, so we need help from the specialists in this organization. Over the last six months—it has almost become my second job—I have been here four or five times. Igor Goryanin and Alexei Sitnikov came to see me; they worked for a day and a half and realized that USC is a very interesting university. Mr Barrett over there knows Steve Sample. He started out the same way, with a rather backward university, recruited young people, gave them the opportunity to commercialize their discoveries—this is Hollywood, all these films that they made. Now we are even negotiating about a design centre, which Valentin Yudashkin wants to build there. It will be a centre for innovation, so this is already proceeding, in the reverse direction

**V. Solovyov:**

I agree. Let them suffer now.

**V. Zelman:**

That is your opinion. I listen to you every Thursday night, so I know your style. And now I want to say seriously, why I am glad I joined this project, and why I am doing it with such pleasure. It is because in the next 25 years, there will be a major breakthrough in healthcare, in

medicine. It will be in molecular medicine, and it is very important that a leader emerge to pull it all together. A big problem is the training of staff. In America, no medical school is isolated: it is part of a university, where there are specialists who can train students in basic molecular biology, physics, chemistry, which are, after all, the foundation for such a breakthrough. Here in this country, there are medical schools on their own. This is a difficult process to change, because doctors are needed in public healthcare, but universities should open their departments. And I hope that you, the Skolkovites, will be able to bring this about, to create this new medicine. Many interesting things can happen at Skolkovo. And if we do not believe in it, then it will fail, just as many of the great construction projects of the communist era did.

**V. Solovyov:**

Thank you very much.

Ms Li, in China, they are planning to teach schoolchildren business school principles. What for?

**J. Li:**

I would like to talk about the Skolkovo spirit. I think that when we talk about the Skolkovo spirit, how the classes are graded, China is doing something more advanced, we start with young children.

Recently, for example, there was a pilot project in Shanghai for young kids who come to school. We started with a change in the curriculum. Everyone will use an iPad in class. The teacher no longer plays the role of teaching for exams.

We focus on changing the focus towards creating a learning culture, not a teaching culture. So, the teacher will come in and ask, for example, "Work together now. Show me a little of what you know about Greece". The student will use the iPad and do the research, work as a group and give a presentation.

In that way, they practice searching for information, consolidating information, teamwork, leadership, arguing and negotiating what they will finally present. So, innovation starts at an early age.

And also in the vocational school sector, we face the same problems as the rest of the world. Six million college graduates cannot find jobs, and the universities are failing the employers during the recruitment period.

So, quite innovative curriculum designs have started to be implemented all across China. Our training is no longer just focussing on high-level business leaders. It has started to focus on potential business managers.

The talent supply pipeline has two ends. We have got to focus on the entry level, so that is how we are class grading similar to the Skolkovo spirit in China. Thank you.

**V. Solovyov:**

Julia, how would you respond if you were offered the job in Russia that Minister of Education Fursenko now holds? Because here, unfortunately, no one is thinking about schools in those terms. So it seems that you could get a job in Russia. Now an interpreter will help you sort that out. Now that is politics! They wisely broke the machine. Meanwhile, Mr Nally, you had a comment.

It was basically not a question. It was a sort of a domestic joke, and a bad one.

**D. Nally:**

But I do think you are making a really great point.

You know recently, China came out with their 10-year plan for human capital, and their focus is all about moving from a population dividend to a talent dividend, number one. Number two is to really focus on creating the human capital needs for the longer term.

And I just think it goes to point out that when the government, from an institutional standpoint, begins to focus on talent and human capital agenda items, and if this government does not have a similar approach like for Skolkovo, from a competitive standpoint you will be at a real disadvantage.

And I think that is changing the way we collectively need to think about all of the issues around talent and the attraction of talent over the longer term.

**V. Solovyov:**

We have now moved away a bit from that important subject that we touched upon earlier, when we were talking about the role of government and administrative measures. So I have an important question for Mr Kleinfeld. The Russian government requires that state-owned companies develop a program for innovation. Do you think that such administrative measures will help to promote innovation on the part of business?

**K. Kleinfeld:**

Let me start with a premise. I mean, if you run a company today, I think this is all in a world where information flows so quickly. It is actually all about talent. I mean, if you do not have the best people working together as a high-performance team, you will not win, right? So, I think that is the first thing, and that is the same for companies and in the end, for nations, because in this way nations also compete; companies of nations compete. That is the first thing. So, I think the whole idea about talent—to go back to that—is fantastic.

OK, let me talk about four thoughts that I want to leave you with. I think the second thing is we have to find a way to define talent, because I heard a lot of things that were thrown out there. I think a lot of that revolves around misunderstanding of what you really need as talent. I

would actually recommend that you go your own way with taking your own traditions and the passion that, fortunately, I saw again here today. It is a good thing that we brought that back, and are connecting back to the good things that we saw in the Soviet days.

If I define talent, I am not just looking for a classical MBA school profile; I am looking for some person that has depth and breadth. The depth, very often, can come from personal life, as well as from business life. So I call it the T-shape Model. I would not hire somebody who just has a shallow, a kind of tick-the-box MBA profile. I would highly recommend that you do not go that route. That is my first thought.

My second thought is that I love the fact that this panel did not just talk about Skolkovo, but about the Skolkovo spirit, because we have got to be clear here. I mean for a country like Russia, Skolkovo is absolutely great and meets those initiatives, but Skolkovo alone will not be sufficient. That is why all members of FIAC, of the Foreign International Advisory Council, have said, "We are going to commit to speak at universities at least once a year", and that is important.

The interesting thing is whenever I do it, actually, I get a question: why do we have you as a Western CEO coming here? Why do we not see Russian CEOs coming equally often? That is an interesting thought, and I did not expect that.

So, the third thing is, we talked about entrepreneurship, and Ivan, I think, is a great example of that, I think, very often, we just talk about one person doing it all. That is a very unique thing because, in the end, if you look at what makes you successful, what I typically see are three things.

It is a technical idea. Somebody has a good technical idea, but then you need somebody who is also skilled in finance, and, in the end, you need somebody who has got commercial skills. It is rare for that all to be present in one person. So, therefore, you have to find mechanisms like we have in Silicon Valley, where people that have those skills meet,

right? That is why some of the schools provide that. You do not have that at this point in time, so that is a question of how do you network this.

The last thought, the fourth thought, is that ultimately, I believe that worldwide intelligence is equally distributed. So, in there, Madam Li comes in, 1.3 billion people. Now, guess what, if you believe that intelligence is distributed equally, that is a lot of smart people in China and that concurs with my experience, and I enjoy it. OK.

That basically means you have a structural disadvantage, right? A structural disadvantage for the country! I know that last year is the first year again that you have been growing, but it takes a long time to get to 1.3 billion. I am not sure what that would mean; whether that is a positive thought, you know.

But, back in the Soviet days, you had a lot of attraction, including in the CIS countries, as we call them today, and brought a lot of talent in. I would absolutely encourage you to continue to do that, and think about how you can attract talented immigration.

I brought some statistics with me from the US to give you an impression of the role that immigration plays in this sector. Twenty-five percent of all tech and engineering start-ups were founded by immigrants. Twenty-five in the US, I am talking about. Twelve percent of all US new businesses are, somehow, involved on top leadership with immigrants. Twice the number of PhDs among US immigrants. In the US, 670,400 study there, and I could go on and on and on and on.

That is the way how the US overcomes a structural disadvantage, and it has overcome it very well. That is the discussion that I have not really seen here in Russia. I think it connects to some of the strengths that we have heard before. I would very much encourage you to continue to go on that path.

**V. Solovyov:**

A brilliant speech, but, unfortunately, it would seem that our powers-that-be believe that the major structural imbalance in our economy is not a lack of brains, but a lack of street sweepers. Therefore, most people who migrate to Russia work exclusively at cleaning the streets, rather than attempting to organize new companies and design something new. But the very profound and correct idea of the need for "social elevators" also resonated in this speech. Mr Agamirzyan, is your company, RBK, one of these elevators? How important is this project to you, and how important are you to this project?

**I. Agamirzyan:**

Thank you very much, Vladimir. The Russian Venture Company (RBK) is actually one of the founders of the Skolkovo project, and I am a member of the Board of Trustees. From the very beginning, I was deeply convinced that this project was absolutely necessary in our country, that we need a new greenfield, a greenfield on a large scale, and a greenfield in precisely this area: not pure science, not pure education, but the creation of an ecosystem for technological entrepreneurship, including all these elements. The ecosystem should include both educational and research components. A university is absolutely necessary, but no less necessary is the participation of transnational corporations, because they bring in the culture of how to do business. And without them, there would be no effective start-ups, since there would be no one from whom to learn how to do business globally. The Skolkovo mindset, in my opinion, means thinking globally. But to think globally, we must learn how, but, honestly, this requires either going and living in the global world, or bringing this global world here, which is what we preferred. The President, speaking yesterday at our Forum, was talking about opening up the economy, and used the excellent example of a parachute, which only works when it is open. And so Skolkovo is part of just such a project to open the parachute of



the global economy. And until we learn the Skolkovo mindset, until we import this understanding of how it works, how the modern global world lives in the post-industrial era, we will not be able to open this parachute. Therefore, it is not a matter of an "elevator", although, of course, all institutions of development are elevators for new, innovative companies.

**V. Solovyov:**

Thank you very much. Now I can give the opportunity to a few more people to have their say. I think it would be a great honour for us, Mr Reif, if you shared your thoughts with us. I know that there will be a separate signing ceremony, but since you are in many ways an icon here, representing modern ideas about what makes the best educational and scientific, technical and entrepreneurial university, it would be interesting to know how you view Skolkovo, what it means to you. Is it a new opportunity? A breakthrough to the future? A charitable gesture? Or just an attempt to "grab" some new turf?

**R. Reif:**

Well first of all, Vladimir, thank you very much for the opportunity to use the microphone, because I would like to...

**V. Solovyov:**

I am the microphone master.

**R. Reif:**

I would like to start by addressing the comments made by academician Alferov a few minutes ago.

It just so happens that what he said in his remarks are topics in which I agree fully. I wanted to establish here that MIT. The US in general has

tremendous respect for science in Russia and for the accomplishments of Russian scientists.

The reason for MIT's interest in this project is exactly because we want to interact with Russian scientists and with Russian institutes. We want to work together with them, and we want to learn from each other.

I believe strongly that we can do more by working together, than simply working by ourselves. I believe the Skolkovo project is a tremendous project for Russia.

Many of the comments raised before which I fully agree with are: the right time, and with – so far – the right people. By bringing an international flavour to Skolkovo, we will be able to work together with Russian scientists. With MIT, with other American institutions, and with other global institutions, corporations and universities, to make Skolkovo what could be the beginning of the capital of an international interaction and an innovative ecosystem in Russia to be exported or expanded across the rest of the Russian Federation.

**V. Solovyov:**

Thank you very much. I see many people in the hall whom I have known for many years, even went to school with, although now they head up Boeing. I know that Microsoft is here. I see the governor of Yekaterinburg, the former Sverdlovsk province, Mr Misharin. If you wish to comment or ask a question, please give me a secret sign – not a banknote – and I will allow you to use the microphone. If anyone has questions or statements, please go right ahead. All right, let us begin. You were the first to raise your hand, so let us start with you.

**K. Faenov:**

Thank you, Vladimir, thanks to all the participants in the session for a very interesting and comprehensive discussion. My name is Kyril Faenov, and I am here representing Microsoft. I am responsible for the

Technical Computing Group, that is, supercomputer technologies and their application in cloud computing. My group is opening up a new area of research here in Russia, as part of the Skolkovo project. I would like to make an observation based on my 20 years of experience working with dozens of start-up projects, as their founder and director, and also as an advisor both inside Microsoft and outside the company.

As a matter of fact, the process of creating something new is paradoxical; it is a process of what is called in English invention and innovation. The process of creating something new requires a very strong scientific-technological base, long-term investment, patience and openness, because it is an unpredictable process. The process of innovation is the selection of new ideas on the market. Startup projects represent a unique configuration that makes it possible to recruit new people, new groups, new mechanisms for entering the market and, most importantly, to measure the effectiveness of these enterprises under market conditions. Therefore, Microsoft is glad to be supporting Skolkovo, is working with startups, and has opened a seed fund, which has invested in five startups over the past six months. We are grateful for the opportunity to participate.

**V. Solovyov:**

Thank you. Well then, from software to hardware, I give the floor to Boeing.

**S. Kravchenko:**

Thank you, Vladimir. My name is Sergei Kravchenko, President of Boeing in Russia and the CIS. I want to make two statements. First: I personally, and my company, strongly believe in Skolkovo. This project is absolutely necessary for Russia and the world. And I believe that this project will be carried out. And the second statement: you know, there is a very fine line here. All big corporations, whether Cisco, Intel or

Boeing, since they are public companies, cannot do basic research, if it is not required for the development of our own products. The Boards of Directors simply will not allow it.

Nevertheless, there is a huge need for innovation, new materials, new mathematics. And I do not think that Skolkovo needs to do traditional outsourcing. We at Boeing have done it for our own benefit and that of Russia. Our largest engineering centre outside the USA is in Moscow, with 1,500 engineers. The largest scientific and technical centre outside the USA, with 450 scientists, in spread across seven Russian cities, forms a centre for IT development that is second only to that in India. These focus only on innovation. But all this is outsourcing. Russia has a great need for it, because Russia can export intellectual services, just as India or China do, and it will be an antidote to oil dependency. However, there is no reason for Skolkovo to do this. Here is what Skolkovo should do, as one of our leading scientists was saying: we have to think about how the world's largest companies will decide, along with their Russian colleagues, which innovations are needed in physics, chemistry, new materials and mathematics; to set up joint laboratories, and to make Skolkovo an innovation centre not only for Russia, but for the world.

#### **V. Solovyov:**

Thank you very much. Excuse me, but I have noticed that large, heavy cameras have appeared, presaging the appearance of VIPs. This means that very soon we shall have to break, before the signing ceremony. So, to conclude, I would like to ask Mr Misharin to say a few words. A big request: I realize that every governor assumes that he too needs a little Skolkovo. So try to stay clear of this probably correct, but obvious thought.

#### **A. Misharin:**

Okay, Vladimir guessed it, as usual. Because as Viktor knows, I was the first to say that I also needed a Skolkovo and offered to set up an affiliate. In fact, this is being done, and it is being done now independently, because the Skolkovo project is very important precisely to create a training environment. Today, Ural University has been established, on the MIT principle. Whereas two years ago the share of R&D in the university's overall budget was 5%, today it is 25%. In addition, we have adopted a programme – a program and a road map developed directly by Andrey Volkov, the university is under his leadership – according to which we set ourselves the task of establishing just such a research and educational university, where half goes to the teaching budget, and the other half to the scientific budget. This is precisely the principle and stimulus that we should strive for, and we are doing it. And I am grateful that this project exists today. Just one more figure: of the 14 registered residents at Skolkovo, three are registered in Yekaterinburg, and they are all at the university. So we are moving down this path independently.

#### **V. Solovyov:**

Good work. Thank you, dear friends, as this part of the direct discussion comes to an end. It should be noted that this is not the first year that we have assembled and discussed problems, and it is a pleasure to note the tremendous progress that has occurred during the year. The ease with which the participants have been speaking is founded to a considerable extent on their real, positive experience. Because, of course, even a year ago, when we were conversing in a similar group, and two years ago, there was an anxious feeling: what if it does not work? And all these distinguished ladies and gentlemen, with their natural optimism, put their high reputations in business and science on the line. It is great that John's optimism has now been confirmed by actual deeds.

Now we will need a short time to rearrange this area and proceed to the very important signing procedure. The rearranging will not bother us, will it, distinguished guests? Excuse me, before your very eyes, we shall now deploy our massive lifting power, and in a few minutes the procedure of signing a very important document will take place, to be attended by First Deputy Prime Minister Igor Shuvalov, and of course, Mr Reif from MIT and, I believe, Mr Vekselberg from Skolkovo.