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EMERGING MODELS IN INNOVATION
Expanding Technology Horizons

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With multinational companies increasingly establishing global supply chains for research and development, emerging markets are not only becoming a source of fresh concepts and products, they are also offering new models and approaches for fostering innovative ecosystems.

Moderator:

Dr. Hans-Paul Buerkner, President and Chief Executive Officer, The Boston Consulting Group

Panelists:

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

Jon Fredrik Baksaas, President and Chief Executive Officer, Telenor Group

Serguei Belousov, Executive Chairman of the Board and Chief Architect, Parallels

Bruno Di Leo, General Manager, Growth Markets, IBM Corporation

Ilonka Harezi, Founder, TESLAR and Shift 2012

Viktor Sarayev, President, Glowers

Dr. H. Buerkner:

So, good afternoon. Thanks very much for joining us to continue the discussion on innovation. Clearly, this is one of the key levers for increasing productivity, for increasing competitiveness, and for ultimately increasing the standard of living here in Russia and around the world.

We will talk not just about new products and services, but also new structures, new processes, and new business models. And so, I am very happy that we have a very diverse panel this afternoon. I will introduce them in a minute. I am Hans-Paul Buerkner, the CEO and President of The Boston Consulting Group. We help clients with innovation, but also with more general top management issues.

So, let me just briefly introduce the panellists and then we will jump right to the discussions. I will start with, in no particular order, Bruno Di Leo who represents IBM, the General Manager for Growth Markets. He has a broad range of experience in emerging markets, and he will talk about this in a moment

And, given that IBM just reached 100 years old, and also changed its approach a number of times, I am sure he is very well positioned to talk about innovation.

Jon Fredrik Baksaas will join us in a second. I hear he is on his way from Telenor with significant activities here in Russia, and also around the world.

Then, we have Igor Agamirzyan who is the Chief Executive Officer and Chairman of the Executive Committee of the Russian Venture Company, with lots of very interesting hands-on experience with what works and what does not work.

We have Serguei Belousov, the Executive Chairman of the Board and Chief Architect of Parallels, also somebody who has built a number of businesses from scratch.

Then, we have Viktor Sarayev, President of Glowers, somebody who has generated a lot of patents in the past, and is now commercializing these patents, a very interesting story.

And then, Ilonka Harezi, who I am sure, can tell us about what it means to be innovative as a very small company and trying out new innovative marketing approaches.

And, I would also like to introduce Rogier van de Heide who is Vice-President of Philips, Chief Design Officer of Philips Lighting, who is working a lot with designers and innovators and small entrepreneurs here in Russia and around the world, and tries to bring together the perspective of a very large company, but also an open innovation process that I think is indeed very innovative and generates very interesting results.

So, let us just jump right into the topics that we have; we will talk about three major topics and then dwell on subtopics. I also would like to ensure that you have the opportunity to get engaged in the discussion. So, we will not have long statements here from the panellists, but talk about some hands-on experience and then also make sure that you have a chance to get engaged and to raise your questions, and also your comments.

So, we will talk about the impact of emerging markets on innovation models and of course, especially on Russia, and what are specific sectors in the emerging markets where R&D has the biggest impact. The second issue is what should both the private and public sectors do to ensure that emerging market innovation can be efficiently brought to the market.

Obviously, having great ideas is one thing, making sure that they really do come to life is another thing. And then, I think you should talk finally about the new strategies that business should adopt to better leverage emerging markets' R&D capabilities, the talent, the ideas, and maybe special challenges.

I will start with the first question with Bruno to talk about the impact of emerging markets on innovation models.

B. Di Leo:

Thank you. Good afternoon everybody. First of all, we in IBM believe so much in the particular emphasis that emerging markets require, that we created an organization which is devoted to emerging markets. And actually, I think I am the only senior executive of IBM that does not live or work in New York. I live and work in China.

The second message I would like to give is that there is a lot of emphasis on BRICs. We believe that emerging markets go beyond BRICs. There are at least 20 to 30 countries which are very relevant, not only in terms of the size of the market, but also whether they are producing and contributing to world development in terms of emerging markets.

We have learned that one of the most relevant things is that you need to get local. Things are created and built locally in the emerging markets. So, we have the employees, research labs, development labs, and so on in these countries. Particularly in Russia we have a development lab focused on high-end systems and hardware and software development.

Now, the opportunity is immense and it is not only about technological innovation, but also business model innovation, the way business is done. I will try to give some examples to answer the question. Let me start with banking. Seventy five per cent of the people in emerging markets do not have access to banking.

There has been no banking model developed in the world yet that can properly serve an individual that only has USD 10 in a bank account. All the banking models are too expensive. So, all the banks that are working on developing innovative models based on technology, business processes, and a combination of both to serve this population will be able to tap a huge leverage that can develop the economy.

By the way in the telecommunications space, let me give you an example. Ghana is a country that has 24 million inhabitants and only 150,000 fixed telephone lines. But, there are 11 million mobile users and these 11 million inhabitants do

all their banking transactions through their mobile phones. There is a huge opportunity in our emerging markets to leapfrog, to skip previous technologies, previous business models, and develop new ones.

Actually, if you take China Mobile which is a company that has 600 million mobile subscribers, and you are the telecom operators in India, and all Southeast Asia and Russia, all of these companies are creating more mobile subscribers per year than all the mobile subscribers the United States of America have.

So, in these markets every year a new AT&T, a new Nextel, a new Verizon, a T-Mobile are being created. Clearly in some industries, traditional industries in the developed world, actually the new business models and the new technologies are being developed in the emerging markets.

Healthcare: The first device that was capable to do an ECG, an electrocardiogram, for less than USD 1000 was developed in India. The pricing point is to be able to do an ECG for less than one dollar. It was developed in India and now is the bestseller all across Europe.

Transportation: If you take Russia, India, and China, they have the biggest railroad systems on the planet. China alone is developing 70,000 kilometres of high-speed railroads, to move five billion passengers per year. This is a source of innovation. Russia is the single largest transporter of people and the number rail cargo transporter in the world.

Airlines: Out of the top 25 airlines in the world, in revenues 10 belong to emerging markets, in profits 18 – the top 18 in profits in the world. Why? Because they are modern and innovative. They run at less cost.

And you can go so on and so on and on and on. The point I want to make is that the enterprise is in emerging markets in this global economy where trade is flowing freely, especially in the success of Eastern Europe, Asia; then you go to Middle East and you end in Latin America.

They are no longer entertaining third or fourth generation technology, third or fourth business models. They want to see the best practices that were built in

major markets and they want to develop new business practices, new technologies, and new business models. The final message I want to give very quickly is what differentiates, in terms of information technology, an emerging economy from a developed economy.

There is one very simple parameter. In the developed economies, in Japan, in the US, in the UK, in Germany, the economy allocates about 4% of the GDP to information technology. There is a considerable investment in government enterprise and so on in information technology. Everybody recognizes that information technology, or technology in general if you wish, is a very good source of productivity, competitiveness, and so on and on.

In emerging markets information technology is around 1%. So, there is a huge opportunity to better use technology in general, to make our countries, and our markets, and our enterprises more competitive, a huge space. You would consider this green field, wide space. What in the decades of the 60s and 70s was considered a problem, a huge population, now is an asset because in this economy of technology, skills and people are an asset.

So, I tried to give you a lot of examples in different industries and I did not try to be biased on my area of competency which is IBM and technology, just to make the point that in every single industry, emerging markets themselves represent a huge opportunity.

And the final message is you do not need to look through the major markets for the needs and the opportunities to develop innovation and technology to fulfil these markets. If you see yours emerging markets, you will see so much untapped opportunity that by serving these markets, you can develop competency, differentiation, you can develop new products, new services, and be competitive. Thank you.

Dr. H. Buerkner:

Thank you very much Bruno. Serguei, may I turn to you, because you also have seen many parts of the world, and what makes innovation in the emerging markets special. Is it particularly difficult, or easier than in developed markets?

S. Belousov:

Well, first of all I think that putting emerging markets into one bucket is very strange because emerging markets have very, very different histories. I mean, if you talk about the BRIC countries, even the BRIC countries have very different histories. India is very different from China and China is very different from Brazil and Brazil and China and India are very different from Russia.

I mean, it would be very difficult for me to talk about innovation in China. I do not know that much about it. I know a little bit about India. I do not know much about Brazil. And certainly, being Russian by birth, although I am not a Russian citizen right now, Russia for me is special. So I can talk about Russia.

Dr. H. Buerkner:

Please do.

S. Belousov:

I think the reality is that Russia historically has always been involved in creating new technologies, creating products based on technologies. This is from before the Soviet Union, but especially during the Soviet Union.

And as a part of the race for world domination with the United States, there was a very strong education, science, and engineering system, and all of those systems also included a science culture, an education culture and an engineering culture.

One of the first resources which the country has benefited from after the changes was, of course, natural resources. But the second resource which still exists, which is diminished but from which the country can still benefit, is actually those cultures and those systems.

And I think Russia is pretty unique and actually can produce unique new technologies. Probably the only country which can produce unique new technologies, technologies which can actually win and become global leading companies, companies of the size of Google and Microsoft, is Russia. The only other potential one is China. And hopefully that is going to happen.

Today, Russia is already doing a lot to promote innovation. There are a lot of those initiatives. They are discussed in a variety of manners by the media. But they are all positive initiatives including Skolkovo, including RVK, including RUSNANO. They all create positive effects. They could be potentially significant and more efficient, but they all create a very positive effect.

When I was asked the question, remember when we discussed it, there was a lot of discussion about the different things: what is wrong with Russia? What is missing in Russia? What is the problem for innovation? I was at the youth forum and on another panel with Igor Agamirzyan where he talked about the fact that some of those things are not true.

I just want to talk about one thing that is true. If you look at all these initiatives in Russia, a lot of those initiatives today do not promote independence and autonomy for technology entrepreneurs and for various participants of the technology ecosystem.

I think in entrepreneurship, autonomy is a very, very important motivator. I have repeated this many times, and perhaps several people have already heard this: people are motivated by money, but not only by money. Every time you come to creative activity, people are also motivated by autonomy, mastery and purpose.

And I think in the case of entrepreneurs, it is money, autonomy, and purpose. And if you actually take autonomy away, you will lose a significant part of the audience. And a lot of the initiatives in Russia, unfortunately force entrepreneurs into certain specific patterns of behaviour, forcing them to jump through some specific hoops, and that results in a significant decrease in the efficiency of those initiatives.

Dr. H. Buerkner:

Thanks very much. Johan Fredrik, you have activities in Russia, in the developed markets, and also in other emerging markets like Pakistan, for example. How do you see the activities here in applying different business models and also coming up with innovative solutions?

J. F. Baksaas:

First of all, I would like to say what I think in principle drives innovation. And now I am talking generally. I think those that are able to define needs and meet needs in a new way are positioned to call themselves innovators.

And does innovation then happen in a structured way? Or does it happen through a template? “Now you and I are going to sit down and innovate”, basically. Or is it that innovation happens because you and I see something out there in the marketplace that there is a need for, and there will be affordability and the willingness to pay? I think these are pretty important prerequisites for innovation to happen.

And there are, of course, innovations which are big innovations, like when the GSM standard came in the 80s and the beginning of the 90s. It was a huge innovation. But it was not until the mobile phone reached the affordable level of the masses that the industry managed to grow the penetration up to 5.5 billion users, as an example. It was when the mobile phone crossed below 30 USD a piece that this really took off along the growth curve.

So in a way, my summary in answering this question is that innovation has something to do with needs and the players' ability to find something that meets those needs at an affordable price tag, representing added value for the customer in question.

Having said that, it is in many ways easier to spot these needs in a developing market rather than in a saturated market or a mature market, because in a mature market, there is a lot of legacy and the business model has in a way run

the risk of freezing to a certain extent, whereas in emerging markets, you are free of that kind of legacy.

And then there are plenty of examples of how services that are deployed in the mature markets find a new way of being used and manufactured and delivered in an emerging market.

As mentioned, financial services, for example, where banks traditionally have been directing their services towards a segment of the population, and suddenly the penetration of mobile phones into the hands of all of you here also enables you to visit your bank account while you are sitting here, and you more or less take it for granted; whereas those without banking give us a phenomenal potential to grow added value at the individual level. This is also a positive factor at GDP level. So I think there is a lot of learning in how rapidly that kind of innovation develops when there is fresh thinking on how to put the building blocks together in a new way and in order to accommodate a potential demand out there.

Dr. H. Buerkner:

And obviously you can dwell a bit more on how the mobile telephone has changed fundamentally how people interact, and also how people are doing business. And so probably in the emerging markets where no fixed lines are available or are just too costly, I think that has really fundamentally changed people's opportunities for taking part in society and in business.

J. F. Baksaas:

Yes. I think this room will probably be a living example of that, and you can in a way make a quick survey. How many of you have been here for the last five years? Oh, not many. But five years ago, you probably did not have your email account in your pocket when you were here, whereas today you take that for granted. Am I right or am I wrong?

From the audience:

Right.

J. F. Baksaas:

Right. And that is only one example.

Dr. H. Buerkner:

There is always someone working on their phone in the crowd, too.

J. F. Baksaas:

And that is in a way what happens. It is an evolution where suddenly an innovation with a small user group, say, the financial side, started to email through the Blackberry and the messaging platform, and then suddenly it poured into all smartphones making the same service available to everyone.

So I think we are witnessing that kind of innovation as we speak, so to say, in our industry. And things like this with the Telenor Group covering five countries in Asia with more than 100 million customers, addressing both the middle segment as well as the segment which really needs access to both net information and the service side that comes with it, in the way that has been described – financial services being one, health being another, general education a third; I mean, you name it.

And it is a phenomenal potential in innovation if we take it one step further into the smart city concepts. But as we know, these are pretty complex questions to address. We can think of them at a desktop level as being enormously smart. But on the other side, to get these right, to create a smart city, for example, is no small task.

Dr. H. Buerkner:

Thank you. Viktor, you have developed a lot of patents and you have tried to commercialize them now. Can you talk about the challenges that you are facing every day in making this work here in Russia, in a more general sense?

V. Saraev:

So, if we look at innovation models over an extended period of time, say, 500 years, then we see a total of five basic models in the space-time-life coordinate system. There is the grain model, embodied by grain, the sale of space. There is the industrial model, embodied by the internal combustion engine, also the sale of space. With the appearance of the Internet, a change occurred in the business model: time began to be sold. Derivatives are the sale of the speed with which future time changes. Stocks, as well. And new models of innovation are tied to figuring out how to create harmony between space and time, and sales. We see this in the sale of cloud computing; this is essentially the sale of time. In Russia the main difficulty we encounter is the degree of trust that business, and primarily the banking community, has for innovation. Very small and novel financial instruments in Russia do not work. Patents and other intellectual products are not instruments of collateral, instruments that would attract investment.

Dr. H. Buerkner:

OK, Igor, I'm sure this is a familiar story, but you are also doing a lot about this, so how would you see the challenges, and what are you doing about addressing those challenges?

I. Agamirzyan:

Thank you. I think actually that in the modern world, in the global economy we are living in, there is no longer a notion of a 'domestic market'. I completely agree with what Serguei Belousov said about the BRIC countries. Even BRIC countries are very different. The emerging markets are really very different.

However, there is still no specific notion of a 'domestic market' in these countries. We live in the global market, and all the technological products, all the technological services are focused on the global market because they are generated by the demand from the people.

Technology however, still does not cost nothing. The technology itself is not interesting. It becomes interesting and demanded only when it serves some important need of the people.

As an example, the mobile telephone, which has been mentioned many times today, or mobile email or mobile messaging, serve a specific need of the people, and that is why it is in demand and fast growing and so on.

In the last couple of decades, there has been a definite trend with the economy becoming technological. Part of the economy is becoming more and more consumer oriented.

Twenty-five, 30 years ago, a significant part of the technological innovation was forced. The only demand was to serving the needs of large industrial enterprises and so on.

In the modern world, the situation has changed completely. The entire innovation process, all technological growth, the entire knowledge-based economy is growing based on the demands of specific people.

And the demands of the people are actually very similar in different countries. They have different cultural traditions, they have different traditions in doing business, and sometimes they have very specific traditions in, say, accounting.

For example, historically in Russia, accounting was not comparable with international standards. And that created a window of opportunity for developing local Russian accounting software that focused on the specific domestic market.

But that is a rare case. There are other cases like languages. The linguistic specifics may be different in different countries.

Did you know that countries with large populations and with specific languages like Russia and China have national champions in their search engines? There is

no other single country in which there is a national champion whose penetration in the market is greater than Google.

But this is all very specific and a small number of these issues. Overall, the market is global, and I do not think that today it makes sense to discuss what the emerging markets can add to the global economy. They are part of the global economy. They are at the same time the consumers for the technological products which are designed in one country, assembled in another country, the components for which are produced in a third country, and the software for which is created in yet another country.

You will be surprised to know how much of the software available through the channels of the multinational companies was actually originally designed in Russia by Russian software engineers, either working for the R&D centres of multinational corporations, or software licensing for OEM use in products.

The Russian technological economy is already part of this global economy, and that is a trend which will only grow. I was very pleased to hear today when President Medvedev said in his keynote that the direction will be opening and integration with the global economy.

He mentioned that the parachute cannot only be partially opened. It works only when it is an open parachute. The economy is to be opened.

We are to remove the barriers. In my view, the main goal of the government and our company as a “venture fund of funds” is the development of institutions. We are working not for profit but to help create the environment, the ecosystem, the infrastructure in which innovation may efficiently grow in our country and become a significant part of the Russian economy.

In my view, the main goal for Russia is actually to remove the barriers, to help the Russian companies to integrate into the global environment, to help the global companies to come to Russia and to feel as if they themselves are local here.

We are creating globally, but it is consumed globally and it will never change back again. The world has become global and that is a one-way road.

Dr. H. Buerkner:

Igor, can you talk a bit about the barriers that you perceive, which have to be removed?

I. Agamirzyan:

Oh, actually that is a very good question. Thank you. There are a lot of barriers. President Medvedev has mentioned it many times, and he mentioned today, his Magnitogorsk initiatives. I was in the session on Magnitogorsk where he was talking about the investment plan. There are a lot of factors which are influencing, in a negative way, the investment plan.

There are a lot of factors which are causing problems for international trade, especially if it is the trade not of oil and gas, not of low-level production, but of technological production or intellectual property: customs rules, corruption, currency regulations, which are just out-dated in the modern world.

I think that such things are to be very thoughtfully considered as the main obstacle for the economic development of the country and the main danger for economic security.

Dr. H. Buerkner:

So it is the same for the overall economic development of innovation?

I. Agamirzyan:

Yes. But you know, it turns out that if you are using the same rule for importing or exporting oil and gas, and importing or exporting high-tech production of computer software and so on, it turns out that it technically becomes possible to do one-bulk transaction of selling oil but when you are planning to assemble a

computer of a specific design, an innovative motherboard in Russia, you will need to import a hundred different components from a hundred different producers, and then to export the ready product for the global market.

So just compare, one transaction or a hundred with different producers. And that completely destroys the chances of businesses with high added value.

Dr. H. Buerkner:

OK. Thank you. Ilonka, you have been an entrepreneur for many, many years, and also a small entrepreneur. We talked earlier about 'small is beautiful', but it is also quite challenging. So maybe you can talk about your experience in building new businesses and innovating new business models.

I. Harezi:

I started a research and development company regarding electromagnetic fields and scalar technology, which back in 1986 was like talking about going to the moon. So I faced a lot of challenges, believe me.

I assembled 10 scientists from all over the world, actually one from here in Russia, which was really an experience, and brought them to a Quonset hut in the middle of nowhere. I started my research in this new technology because I felt that ELF, extremely low frequency, in electromagnetic fields, was going to be one of the great challenges we would face going forward.

And that challenge was going to be based on innovation and what we were going to continue to create in electronics around us. And I saw that that was going to be a major health issue in the future as well, not even knowing that computers and cell phones and those kinds of things were going to hit us.

So I think innovation starts as an industry. It started because my scientists all came from government and had government backgrounds but they really did not want to work as far as warfare and government things were concerned anymore.

They wanted to really help people. They wanted to turn around what they had learned and make something good out of it.

And so we really turned it into consumerism. And I think all industries start as a very technological thing. Like the space age, computers all started from the space age. Computer's nanotechnology all started because of our space programme, because of NASA, because of high industry. And now it funnels down to consumerism.

Consumerism is where it all ends. And I think the United States has been very great in our innovations, etc. because we have made it personal, because we focused on consumerism.

And so from that time in 1986, we designed a watch called TESLAR. In 2002, we did a lot of research to make sure that we were correct in what we were doing, etc. And in 2003 we launched the Philip Stein Teslar, which became the first energy science product ever to be sold at a luxury level, which I mean brick and mortar, Neiman Marcus, Saks Fifth Avenue, etc.

And in four years, we became a USD 100 million company. So it was a very fast start, but we really had our R&D down. We worked at it and we made it very personal.

And I think innovation starts with making things personal. I think that is why Apple has been so successful. They have gone and they have made it very personal. They have made it beautiful. They have just taken a good technology, which was not necessarily theirs at all, and they made it personal and they made it beautiful, and it appealed to the simplistic Generation Y and Generation X's that is the market today and the consumer today.

So I think innovation is very important to be based in that consumer level and at that consumer level and selling at that consumer level.

Dr. H. Buerkner:

Thank you. Rogier, can I turn to you for a second? As we talked beforehand, you talked about the open network of innovation that you have. Can you see differences between people that you work with in emerging markets and scientists and innovators working in developed markets?

R. van der Heide:

So my name is Rogier van der Heide, Chief Design Officer of Philips Lighting. Yes, I think there are considerable differences, both pragmatically as well as the pace of innovation, and then the needs and desires in society, and how we meet those with our technology.

We are, of course, a company with a very long history in developing technology, which required a lot of innovation. But increasingly, we also invest in research, development, and innovation that are more to do with how this technology could be applied in a meaningful way to society to enhance people's lives.

So when we design lights, we are not only focusing on making them the most efficient and providing proper illumination, but we also think about how these lights could contribute to a more comfortable life, or how they could stimulate you, creating an attractive environment, and things like that. That is the type of innovation I think that actually the emerging markets adopt much faster than the traditional markets.

I think there is a big leap forward in terms of the pace at which all these kinds of innovations are being adopted by emerging markets much faster than they could ever do before.

You mentioned in your short introduction 'open innovation'. That is what I like to call it. It is something that we practice. In the southeast of Holland, there is a small town called Eindhoven. Arkady knows the place. He lived there. And Eindhoven was just named the number 1 intelligent community in the world, the smartest town in the world, in terms of innovation. And it happens to be the place where Philips was founded 120 years ago.

What Philips did recently is to open up their research campus and allow start-up companies to join us there, to occupy a small place, share our facilities and other facilities that they otherwise would have no access to. And very, very suddenly, it became a hub for knowledge and for innovation.

And I think that is a tremendous achievement for a town which is that small, with only 200,000 people or something like that, to be named the smartest community in the world.

Actually what the judging panel noted is what really stood out is how the start-ups work together with their stakeholders to identify the needs and desires. And that is, of course, what makes innovation really relevant. All the technology that we develop does not mean much if it does not turn into relevant solutions.

So a fair part of your research investment should also go to making all that technology meaningful and applicable in people's everyday life. And I think that life is considerably different when you live in the Pearl River Delta compared to when you live in Amsterdam like myself, and we have to take these insights into account when we develop the solutions.

Dr. H. Buerkner:

Rogier, thanks very much. I would like to open the discussion also to the audience here, and I hope we can get some engagement even though it is quite late in the afternoon. Are there any questions, comments that you have as to what has been said so far by the panellists? Well, this is not innovation. It is quite a risky thing to do because, very often, nothing comes back. But we will try. We will try.

S. Belousov:

Hans, if you will allow me some comment.

Dr. H. Buerkner:

Yes, please.

S. Belousov:

I participated in one panel today and we were discussing cloud computing. And one thing about cloud computing is that it is a very widespread phenomenon, and so everybody has their own perspective on it, like the story of the blind people who are describing an elephant, where one touches the trunk and describes it as another describes the leg or the tail.

Now, innovation is a much larger phenomenon than cloud computing. And I think we are talking about differences here. There is innovation from the standpoint of science, technology, a specific product like a space programme or a general purpose consumer product, which is a very different innovation. There is also innovation from the standpoint of creation of a new product, technology, and also from the standpoint of adopting this technology. And so we are all talking about very, very different senses.

Dr. H. Buerkner:

You wanted to ask a question?

J. F. Baksaas:

Just a quick one on business models reaching out to consumers. I think it is an interesting concept, a little bit like what I try to describe when finding a market. It is in a way an expression of the same. Let me give an example.

And again, it is from our own industry. The voice. When you do not have access to a communication platform, and suddenly you get that, there is an immediate willingness to pay.

And if you transfer that to the services that have the potential of being brought forward by the new modern mobile and fixed communications systems (and

platforms for that matter), then again, is this something that consumers are willing to pay for? And I will give you one example: mobile health initiatives.

In the emerging world, when there are the necessary conditions, such as access to medical services being scarce. Then, there is a phenomenal climb from not having access, to getting access to medical services through the mobile phone.

But is there the affordability to pay for that? Well, not necessarily, that is another thing. Whereas if you take the same concept into the developed world, the mobile phone has the phenomenal potential to assist patients with chronic disease to monitor their situation and position, and immediately you would probably be willing to pay for that, at least within certain limits.

So here, again, if we can find those business models that in a way bring forward these new concepts, I think also we will see some big leaps in many societies.

Dr. H. Buerkner:

Good. Will I make another attempt to see if there are comments, questions from the audience? Here's one. Why don't you start?

A. Demidov:

Thank you. My name is Andrey Demidov. I am a participant of the Youth Economic Forum. And I have a question about innovation, also concerning Russia. It might be in the near future.

There are now some institutions which are developing innovations in Russia. There is the Russian Venture Company, RUSNANO, Skolkovo business school. So are these all the bricks of one system? And do you think those bricks are enough in the near future to develop innovations in Russia? And if yes, then how does it give enough autonomy to entrepreneurs as Serguei mentioned?

Dr. H. Buerkner:

OK. So Igor and Serguei, do you want to comment?

I. Agamirzyan:

I have can comment on that. First of all, I think that it is not the goal of the government or the state to create innovation. The goal for the state and for the government-owned development institutions is to facilitate creation of the environment in which innovation will flourish. And that is actually where all the development institutes including RUSNANO, Russian Venture Company, and Skolkovo are too weak already.

I would say that access to all stages of development is already fairly well covered, addressing all the problems. So these institutions are not competitors. They are complementary to each other. And we are actually working in very close cooperation.

For example, I am a member of the Board of Directors for RUSNANO, and we have a representative of RUSNANO in our Board of Directors. We work with a special task force in Skolkovo, and I am a member of the Board of Trustees of the Skolkovo project.

So this is pretty well covered. However, again, I think that it is a huge danger for the government-initiated institutions to try to replace the market by themselves. We need to avoid replacing the market. We need to help the market to grow and flourish.

Dr. H. Buerkner:

Viktor, do these institutions really help you, or do you think they are of no use?

V. Saraev:

I believe that at this point the most important driver of development will be trust from the banking and financial community in innovations. Steps taken by the government are not enough, and they will be of no use without the arrival of private business and without increasing the trust held by private business in innovation.

S. Belousov:

I would like to ask a question: why specifically the banking and financial community? Why not other business?

V. Saraev

Other business too, I agree. But until private money comes in, nothing will happen.

I. Agamirzyan:

I completely agree. Really, this is exactly what we are striving for. Another thing is that the entire market is built on trust, and if this trust does not exist between various institutions, between various market participants, it is very difficult to expect the market to develop effectively.

Dr. H. Buerkner:

Serguei, do you want to comment on the importance of the institutions?

S. Belousov:

I think this is a useful initiative; institutions certainly, at the very least, help create motivation. Perhaps they are shifted a bit to the side. Now these institutions to a certain extent must foster commercialization, and not enough resources are being applied to motivation. I have spoken with various institutions about how it would be nice, for example, to produce some sort of broadcast on innovative companies, make a movie about some startup or something like that. Motivation is a very important driver; with motivation people can break through a wall with their heads after a little while.

Very little money in Russia right now is being spent on basic science. Fundamental science is the foundation for any innovative businesses. People who have been through school in fundamental science become the real creators

of new technologies. They do not necessarily remain in the field of science. They may leave and create a company that, perhaps, does not work with physics, but produces software or some Internet service. Investment in fundamental science in the Soviet Union was enormous, and most of today's innovators from successful companies in IT and elsewhere were scientists by education and training. But this meant that we had to operate scientific research centres; now these centres are operated far less.

At the heart of it, of course, these institutions help, certainly.

V. Saraev:

I would like to add that it is easier to get a million dollars from a private business than 100,000 from a bureaucratic structure, because you have to spend more time filling out forms. And there is no time.

S. Belousov:

Well, then you just need to get 10 million probably...

V. Saraev:

I agree.

Dr. H. Buerkner:

OK. You are closely engaged in Skolkovo, if I am not mistaken.

B. Di Leo:

Yes.

Dr. H. Buerkner:

So, will you talk about the environment here, what you receive, and what you are missing?

B. Di Leo:

Yes, first of all, we will try to share with the audience a paper, a study we did about investment in the world; who is investing, in which countries, in which areas. Another point of view is a statistical study, and Russia is not among the top 20 destinations for research and development investments. So, that is a fact that I think enterprise, government, and institutions have to deal with here in Russia, which is why Russia is not a location where people who want to invest in research and development. That is a good question that has to be answered here.

I would submit that, first and foremost, there is kind of a fundamental character to economists. Russia has a manufacturing and vocational tradition, and not a services one. India is a services economy that is trying to move to manufacturing. China is manufacturing anyway.

So, each one of these countries has a character, but when you want to go to innovation, you have to see what opportunities there are in the world. And the opportunities available, in terms of jobs and research and development, are mostly around services; around intelligence, and services. Everything has been mentioned here around this area.

So, I think that Skolkovo is one of these initiatives that tries to solve the equation, which is, how do you put government, the private sector, and academia together to create an environment which fosters local entrepreneurs to come in and develop innovation.

Now, it is not that government is to do research and development. No. You create an environment by which this can flourish, no? So, I believe that Skolkovo is an initiative but, in the long term. In the times of Industrial Age, people would move to where the work was, OK? You built a factory and the people would go to factories. Today, the work is moving to where the people are. This is already well known in the knowledge economy.

So, actually, people believe that India, for example, is the number one outsourcing location in the world. Actually, when it comes to business process outsourcing, it is no longer India; now it is the Philippines.

So, you have to ask yourselves what does the Philippines have that Russia does not? Skills. Russia is known for very good technical skills. So what is this? I believe it is a combination of the things that Skolkovo can do, which is create a set of new rules for business, new policies that will make moving to Russia to work more attractive. That is the core of the question: why is work not moving here?

S. Belousov:

Hopefully, Russia will not become the Philippines as a result of Skolkovo.

B. Di Leo:

I was just giving a very respectful example, Serguei. There are many others. I mean there are beautiful things being done in Russia, on a very high-level, actually. I was just talking about volumes.

Dr. H. Buerkner:

But, Viktor, I think you wanted to also add to the discussion on what is missing and how the institutions can help you put a lot of emphasis on the financing side.

V. Saraev:

Another thing that must be implemented is the creation of a system for evaluating intellectual capital in Russia. There simply is no such system. As soon as this is created, there will be a clear trend towards acceleration. As was said by IBM, there are trends for development. The main trend for development is a relationship of harmonization between time and space. This is a convergence of various devices. For example, the telephone – it now has features and video, a

music player, so there's a merging, a harmonizing. There needs to be an evaluation of how this happens, a mechanism for harmony occurring or not. If it is, then in so doing we can raise money.

I. Agamirzyan:

I would like to comment on this. I believe that we have this sort of evaluation system. This exists not only in Russia, but throughout the world, and it is called the 'market'. Nothing but the market ever evaluated anything, or ever could evaluate anything adequately. So as I see it, among the problems that we do have, this is not an issue at all.

V. Saraev:

I should have added: an *institution* for evaluation.

I. Agamirzyan:

The institution for evaluation is the market. Go, sell. Or buy.

S. Belousov:

After the convergence of space and time it will disappear.

V. Butenko:

Vladislav Butenko, Boston Consulting Group, Moscow. There is the matter of another barrier, which surfaced yesterday in a discussion we had with the general director of one of the largest Russian companies, which invests 1 or 2% of its income in innovation. This is a very serious company, but we won't name their clients. This is exactly what the discussion was about. The question that came up (and I will pose it to the Russian participants in this discussion) was as follows: is it possible, given the Russian national character, that innovations can be introduced effectively and on an industrial scale.

What examples have we had here? Edison once said that innovation is 1% inspiration and 99% perspiration. The second example was that in Russia there have often been breakthrough innovations, fundamental innovations – for example, when the Russians launched Sputnik and beat the Americans. This cost a whole lot of money. The question is this: can Russia manufacture products on an industrial scale and efficiently? Considering that the Russian national character is more conducive to breakthrough innovations, great inventions, but then to give that a disciplined foundation, perhaps, is not the most natural thing for it.

S. Belousov:

I don't even know how to answer that question. We had a similar question at another session. Really, it's very difficult to produce innovations in winter, because it's cold outside. Winter has the same effect on innovation as does the Russian national character.

V. Saraev:

I lived 45 years in Siberia: in Tomsk and Kemerovo. You can produce innovations. But since we are talking about the global economy, you can create breakthrough technologies, and then develop the scale in China or the Philippines.

I. Agamirzyan:

I think I'll subscribe to that opinion. The issue is that Russia and Russian companies must find their place in the global economic structure that exists or, more precisely, that will exist after some time. And in such a way as to optimize the task of maximizing profits.

It is far from always being a question of production. The margins of production capacities are very low, and in some industries are even negative. Money is

made in R&D and in sales marketing, and production is necessary just so there will be something to sell. The real money is in sales and service. Integration, added value – with products, this is where the real money is being made. This is why I get very nervous when we have any conversation about some project that ends up leading to the suggestion that now we need to build some “little factory” so that we can produce it *here*, so that it will be our national product. But maybe we don’t need to build a “little factory”; maybe we need to create a design centre and use this to meet the global demand for development of some product.

Bruno Di Leo:

I think he’s absolutely right. You can’t forget the essence of what innovation is all about. That is, to create value for the economy and improve the life of the people. It’s not to fulfil the dream of producing TVs in a given country, because maybe there is no value in this. So the point I want to make is: you have to define what is the value of innovation and then focus all activities around this. And then you give all the other activities to the places where they can give you value. So, where is the value today in the economies? This is what has to be discussed, and this is what places like Skolkovo can do, which is a great environment, where enterprises in Russia can focus on innovating in a place where they will be of value for Russia.

From the audience:

I’d like to ask a question to Ilonka. I work for IBM. IBM is a company with 400,000 employees with offices all around the world etc. It is innovative, but when you step into the shoes of an innovator, is it easier to make your innovation a recurring sustainable activity?

What is easier? To just nurture one single innovative product, aspiring to become an IBM, just on the scale of a big company, or is it easier just to bring the idea to the status when it is just maybe channelled to companies like IBM and then start

doing something new? What is easier from your experience? What is better maybe for innovation?

I. Harezi:

Well, I believe that taking it to larger companies, an innovative idea, is one way to make money quickly and then get out and start a new project because entrepreneurs are always full of new projects and new ideas.

But I believe that if you really want to grow something, then you have to focus on what your prime mission and core is. I think that is very, very important because if you start in too many different areas then you do not really complete anything very well.

So, when we look at leadership and finances and all that sort of thing, look at Microsoft; they started in a garage. They did not really have any money backing them or anything like that. But they did have passion. They have passion. And they knew that they had something amazing and nobody knew anything about the internet then, it was just some strange thing that they did in government. A kind of secret between atomic submarines maybe; nobody knew. So now all of a sudden it has become a commodity that all of us use and all of us interpret. So, I think it has to come down to that level and then we have to just drive it with all the force that we have in that one area.

And then we can split off once it is really, really successful. And that it is really out there and moving, then we can split it off to something.

There is something that I think we do a lot in the United States, that I have not heard about here at all. I'm really surprised about that, and I challenge all of you to really take note of it, and that is the LOHAS Market. It stands for Lifestyles of Health and Sustainability. This is a major market in the United States today and it is moving all around the world.

We see it as a change in consciousness in political life, in social structure, in everything. Look what is happening in the Middle East, and started with Egypt and those people. They did it in such a heartfelt way.

It was not in a mean way, it was not in an aggressive way, it was in a heartfelt way. Helping each other, Muslims with Coptics and Christians and we have never seen that before ever, ever, ever.

This is something that is a rise in consciousness and I think industry and companies have to start addressing this, because this Generation X and Y are more passionate about what they do. And they do not care about the clothes they wear anymore.

I mean, I would never think of going on a plane dressed formally like everybody here today.

Dr. H. Buerkner:

I will interrupt you. We have two quick questions and two quick answers. So, from the back.

A. Abramov:

Thank you. Alexander Abramov, Samara.

My colleague from the consulting firm practically took the words right out of my mouth when talking about trust. Here is what I am interested in on this subject. Our activities include, among other things, construction – a sector that is not on the cutting edge like IT is, or space technologies for example. I would like to understand what we should do as people involved in construction, conservatives in the good sense of the word, who take a prudent attitude to new things and evaluate them critically. What administrative model would allow us to shake up our masses who know nothing about innovations and high technologies; who will help us develop this trust? What ‘window’ should we go up to? To Skolkovo? Perhaps Mr. Agamirzyan could answer my question.

I. Agamirzyan:

Builders must build.

A. Abramov:

That's true. We would like to work, but we would like to be more informed about this issue. Thank you.

Dr. H. Buerkner:

Igor, let Johan answer.

J. F. Baksaas:

I will probably not be able to answer that sort of directly by saying, "Come to me and I'll fix it for you."

Dr. H. Buerkner:

Well, you should try.

J. F. Baksaas:

But on the other hand, I might have an idea, such as the construction community. By giving you an example, in our tech industry, the mobile industry, we can talk about two types of innovation.

We can say the consumer-led innovation where we are looking for potential markets and potential added value, where there are business models that customers hook onto. There is another type of innovation, we as operators, as customers of our vendors like Ericsson, Huawei, Nokia Siemens Networks etc. can say to them, "Look here guys, our networks are all using quite a lot of energy."

We use and distribute it per base station around the country. We could say, although it is probably not feasible in Siberia or other parts of Russia, but in many

places or parts of the world, you can say that solar energy could in a way drive a base station.

Then a grid connection would not be needed and diesel distribution might not be needed. If the technology provider had been clever enough to innovate towards an efficient level per base station that ran purely on solar energy, that would be a technological innovation that maybe technology partners could develop by themselves if there was a customer there. And then the operators would declare themselves as customers of such a technology because it would mean tremendous cuts in cost structures in different parts of the world.

Of course, this would work where sun is available and plentiful. In a way, I know that some of these vendors have been intrigued by that kind of innovation, that kind of leap. They have achieved a lot on the present technology level on base station technology but I am absolutely so sure there is more to go, by lowering the threshold of energy consumption for base stations and ultimately bringing forward solar energy more efficiently to such a base station.

Dr. H. Buerkner:

Last question please

A. Asaul:

Anatoly Asaul, St Petersburg University of Architecture and Civil Engineering. I have a terminology question. Is an innovator a person who creates something new, or the person who brings it to the market? Thank you.

B. Di Leo:

Let me explain why I react so quickly. Innovation is all about finding new ways to create value. That is innovation. Either because you find a new solution to a problem, or you find a new way to make the solution available to the people.

This is why it is important to create environments like Skolkovo, which is an environment where you can stimulate either creativity and technology in all forms, or create business models, which is how you make this accessible to the people. There is one item that was kind of discussed, which is that innovation is an asset and it has to be protected.

So, to create innovation, we have to be able to create more. That is why it is important to have a good intellectual property system in every country that really wants to foster innovation.

A. Asaul:

We train specialists with university degrees in the 'innovator' process. Do we need to train people who create innovations, or those who will market them? The prevailing view among us is that we have to create specialists who will market these new products.

S. Belousov:

Both need to be created.

V. Saraev:

I think you are doing the right thing. We need to teach and train those who will market innovations. It is those specialists whom we need more of right now.

Dr. H. Buerkner:

Good. Thanks very much. Thank you. Okay, please.

Speaker 4:

I think that definitely, it is both, but also a level playing field, and a trust factor are immensely important in getting the innovation cycle going.

Dr. H. Buerkner:

Thank you for being so patient and for engaging so actively, and thanks to the panellists. I think it is good to engage this discussion with lots of food for thought. Let us make sure that we stimulate innovation in Russia and around the world.