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**РОССИЯ — ФИНЛЯНДИЯ: ФОРМИРОВАНИЕ НАВЫКОВ, ПОДДЕРЖКА И
РАЗВИТИЕ ОБРАЗОВАТЕЛЬНЫХ ЭКОСИСТЕМ**
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E. Aho:

Good morning, ladies and gentlemen. We are ready to start this session, “Russia – Finland: Creating Skills, Supporting and Building Learning Ecosystems.” That is the topic of our session. Last year, we had a similar session and we had several topics. This year we decided to concentrate on one single area that is important for both Russian and Finnish companies, which is education: how to create the right kind of skills and talents in a modern society and industrial environment. I hope that we are going to have a good dialogue. I hope that all the panellists are going to be very brief: only three-minute, short introductory comments. Then we will also have front row commentators who are able to take part in this discussion as they wish, or I can even order you to speak if there will be any important issues arising. Your comments will be essential. I will say a few words about why education is so important. I can see three general reasons and one reason specific to Finland and Russia as for why education has been put on the agenda for this session. The first reason is that human capital is becoming more and more critical in creating global competitiveness and growth. The fact is that, as Benjamin Franklin once said, “An investment in knowledge pays the best interest.” I think that was a fact already when Franklin was active, but it is even more so in a global community: human capital plays a critical role. Secondly, digitalization. When we look at the future estimations of what is going to be the impact of the digital age on employment, for example, there are several quite reliable estimations starting from the fact that probably one third of our existing jobs will disappear over the next 20 years. If you want to compare that figure with history, it is roughly the same kind of process we experienced when countries were industrialized. Especially in Finland, industrialization took place rapidly in the 1960s and early 1970s and we lost roughly that share of existing jobs. We know that it is going to be a painful process and it is going to be a huge challenge for our education system because we need new types of skills and talents. We have here a few companies who have faced this challenge in a very special way:

how to create multi-disciplinary skills and talents. That is the critical factor in digitalization. The third factor is demographic development. The fact is that both the Finnish society and Russian society are aging rapidly, and that means we need to be able to retrain people in order to have longer working periods. And, finally, to get to this Finnish–Russian specific issue, there are a lot of Finnish companies that have invested in Russia, having manufacturing or service businesses or other kinds of activities in Russia. How to get the right kind of talents – talents which are able to promote business in Russia? This is a relevant question for Finnish companies operating in Russia. In the same way, there are more and more Russian companies that invest in Finland, and that need the right kind of skills and talents. How to collaborate in such a way that access to talents will be guaranteed in both countries. Yesterday evening, we had the Skolkovo Industrial Advisory Board meeting and the Skolkovo Foundation introduced us to a new type of special programme for Russian companies to get funding for education and training in foreign countries. That was new information for all participants, and I understand that this programme is rather new. I think that this kind of opportunity should be analysed and discussed in this session as well. How can we maximize the benefit of Russia being so close to us in providing that kind of service and utilizing that kind of programme with our collaboration? So, we have an interesting topic and I would like to start with digitalization, asking Mr. Valery Katkalo to start. He has a special background: he currently leads a very interesting institution, the Sberbank Corporate University. We know that the banking sector has already faced the challenge of digitalization in quite a massive way. My question for you is how can you handle this challenge in Russia? What special efforts have you made at Sberbank to meet that digitalization challenge? Mr. Katkalo.

V. Katkalo:

Good morning and thank you very much for inviting me to this distinguished panel. Let me start with a couple of general observations on the topic of our discussion. We are talking here today about learning. We should probably start by understanding what literacy means today. Probably very recently, still in the 20th century, literacy was about the amount of knowledge a person absorbed during his lifetime. Today, literacy to my mind is the ability to learn. A second starting point is that, when we speak about learning, it is all about managing change and the ability to cope with the speed of change in the learning process. I would like to comment on two aspects of digitalization through the lens of Sberbank and its Corporate University. I will start with a quote from the CEO of Sberbank, who recently formulated very clearly what Sberbank is supposed to be five years from now. His vision was that it would not be a bank anymore, but it would be an IT company with a banking license. So, essentially, this is what we are focusing on today, and not only on transforming the business lines of the bank. What we call 'the bank of the 21st century' or 'digital banking' is emerging very quickly in each and every business line of the bank. Of course, the purpose of a corporate university is not to follow the herd, but to be on the edge, on the frontline of this. We today at the Corporate University already have about 46% of all our deliveries of all the programmes, courses, and so on, delivered online. Let me also say that we face a major challenge of universities not really being relevant today in supplying the new type of talent to meet this digitalization challenge. I will give one striking example that we faced very recently in a dialogue with one of the absolute top, cream-of-the-crop Moscow universities. The head of the university was asked, "Who are you training today? Because the bank is interested in graduates." He said, "We are preparing people who are bankers, people who will be financial directors or experts." The answer from our CEO was, "I do not have any position for a banker in my bank. I need people who know something about big data, people who know about modern IT technologies,

people who have profound training in risk management.” These are examples of the courses and skills that universities today are not really positioning on their agendas and their programmes. Our approach today is to utilize our internal talent, our managers and our experts as much as we can, and to bring them to the programmes for retraining. We upgrade the skills of our managers and experts at the bank. We at the Sberbank Corporate University have a very ambitious goal of developing 35,000 managers of Sberbank. Today we already have about 200 top leaders and experts of the bank who are working based on the model of leaders teaching leaders, and experts developing the new generation of experts. Let me finally comment on the great importance of internationalization in this effort. We certainly understand that the challenge of the digital era cannot be successfully met only in-house. Probably, when I mention that universities are not relevant today and are not really coping with the speed of change, they are really still not open systems. As companies need to be very, very open today and work in the global networks, the same is true for the universities if they want to cope with the challenges you mentioned. Thank you.

E. Aho:

Thank you so much. I recently visited the Sberbank Corporate University and I have to say that I was really impressed with what I saw. What you are saying about your plans is borne out in your execution, which is carried out in a really impressive way. I would like to move on to a more traditional sector, the construction sector. I think the same kind of challenge of transformation is facing that sector as well. I would like to give the floor to Kari Kauniskangas, President and Chief Executive Officer of the YIT Corporation. This is a company that is very well known in Finland, but that operates largely in the Russian market. Kari, please.

K. Kauniskangas:

Thank you and good morning also on my behalf. YIT has been operating in Russia for over 25 years in the field of construction and residential development. At the beginning, our operations consisted of project exports utilizing Finnish resources. Nowadays, we operate in seven cities with populations upwards of a million people, with completely localized activities operated by local employees. This is possible due to the significant improvement in the level of competencies and education in Russia in the past few decades. However, we have observed certain needs in our operations that Russian education has thus far failed to meet. The competencies of new employees are often quite limited in scope. As an example, designers have little or no knowledge of cost-related matters. Secondly, there is a clear shortage of highly educated human resources in the field of construction. For instance, we have a challenge to even find university-educated construction professionals in the job market. At the same time, in Finland, 20% of our employees have lower or higher university degrees in the field of construction. Overall, my feeling is that practically there is no or very limited cooperation between business and universities. In our experience, closer cooperation with companies may help to create learning ecosystems. A second big topic for us is, of course, facilities. As a developer, we are very interested in that issue due to the high costs of development. Nowadays, the best companies base their success on a corporate culture, shared values, managing skills, digital skills, and so on. These are totally different skills than those needed years ago. We need skills for teamwork, taking responsibility, leading, values, and attitude – which are crucial in order to improve, for example, the level of occupational safety, quality of work, and client service – as well as digital skills, managing change, as I said already, and skills to motivate people in terms of curiosity and innovativeness. Still, even today according to norms, we are focusing on constructing only a huge amount of square metres per person compared to any other country we operate in. And the spatial plans of those buildings have been

planned or prepared according to norms in Soviet times. I wonder if those norms could be loosened or reconsidered in order to adapt learning methods to current needs. In my opinion, children do not need square metres, but motivation, inspiration, equipment and platforms to learn. So, to summarize my ideas, I suggest closer cooperation between business and universities, as well as placing more focus on learning methods and platforms instead of buildings, or inspiring supporting building premises rather than buildings with a high amount of square metres alone.

E. Aho:

That is quite an interesting comment, coming from the construction sector. We have a new participant in the front row, Vice Premier Arkady Dvorkovich. Welcome to the session. Like other people sitting in that row, if you would like to comment, you are welcome to do that. I will show you one slide now. It is actually an idea that comes from comments we just heard. This slide shows a ranking of human capital made by the World Economic Forum in 2015. They have analysed, firstly, the quality of primary schools, secondly, the quality of the education system as a whole, and then the quality of staff training. They then ranked countries according to their performance. Finland is the blue line on the top. There are figures for the USA, UK, Germany, and China as well. Unfortunately, the lowest figure is that of Russia. Actually, the quality of primary schools is rather good; not comparable to others, but quite close to that level. But it seems that the quality of the education system as a whole, and especially of staff training in Russia, is lagging behind this reference group. I do not know if Mr. Rakhmanov could comment on that. Do you feel that that is an accurate assessment of the staff training level? What kind of special needs does your industry have, and how do you solve this problem? This is a real situation. How can you solve this problem in your company?

A. Rakhmanov:

First of all I will flip this chart upside down and then Russia will be number one. Again, to be serious, if you take the situation into consideration you have to accept a few important points. Number one, we have very different assessments and scores when we evaluate the quality of education. My daughter, for example, was attending an English school for a year when I was working there and she said it is a completely different story. “Nobody gives me homework”, she said. I am happy to enjoy the science, but when I try to compare education in Russia to education in other countries I can see quite a lot of differences. The purpose of education sometimes is slightly different. The target, obviously, justifies the changes in attitude and approach. However, I am a product of the Russian education system. And I have to say that many of my colleagues who received the same education have been valued and they see that the basis provided by Russian education is quite high. I wonder why we get such a low rating in this particular review. For primary schools, I think the basis is more or less stable. For higher education and professional education, obviously there are certain gaps. However, we are putting in a lot of effort and steps in order to improve. For example, what we have realized in our industry is that, if we take school graduates, only 15–20% of them follow their selected professional route. They get such a wide education that graduates from scientific engineering or from scientific schools can be employed by anybody. Few of the graduates who get a shipbuilding education, for example, continue working in the shipbuilding field. What do we have to do about that? The government made an extremely important step in setting so-called ‘professional standards’, which is nothing more than simply an anticipation and expectation of the industries of how we want future graduates to be prepared at school. Then these professional standards have to be converted into education standards. This is where we see a very clear link between these two problems: Whom are we teaching? What educational product would we like to get, and how will this product be accepted by the

industry? We started from the actual demand side of it. We said, “This is how many engineers we need, how many scientific engineers, how many test engineers, how many designers, etc.” Then we went back to the educational process and said, “What do they have to know before the time comes?” I am sure our colleagues in the Ministry of Education will have to hear us. We are suggesting that we slightly reshape what we usually see in the Russian universities and the middle-education institutions, between general education and specialization. For example, for this we are making so-called ‘base chairs’ at our factories. I am not sure how to correctly interpret this in English, but scientific institutions have their representative offices in our factories and design bureaus. Therefore, we are bringing these two together in order to create this link between what is needed for the industry and what academia can provide. With regards to staff training, I think that is completely in the hands of the companies. I believe we have to support it. You will probably not believe this, but one of our cities where we produce naval equipment still has staff training based on the typical Soviet system, where workers go into the Russian PTU – professional technical schools – in which the training is given precisely on the professions that are needed at those shipyards. And they are actually very successful. They are basically giving us about 75–80% of all the personnel we need in order to do the job. Secondly, with regards to the job training, that comes back again to the professional standards of certain categories of workers. If we look at this in a positive way, not as we usually do – that is something we joke about in Russia – we can get professionals who are really highly qualified to do the job. So I believe that everything that can be done in order to change this picture, and not just flip over the chart, we already know about and we are doing. The issue is that any change takes time. One of my colleagues used to joke about the system we still have. He said it is like an old car: if you push it too hard, it will break down; if you push it too slowly, it will stay in the same place. Therefore, for us, the question is how we can dose our efforts systematically and pragmatically in order to get the

results we want. What we can change depends on that. Last but not least, we all have to keep in mind that many industries, including shipbuilding, are in an era of reindustrialization. We are taking a lot of efforts and steps that will take us from the place where we find ourselves to the place where we deserve to be. That is a lot of work and I am extremely pleased with all the efforts done by the government, which has given us huge support in what is important for us. We have to do it internally in the state corporations, which I am representing, and we have to make the change to be solid, to be concrete, and to be forever. Thank you.

E. Aho:

Thank you so much. Later on, I would like to have your comments on the Finnish system as well, because I know you have experience with the Finnish system. Now we are going to give the floor to Arkady Dvorkovich, who would like to make a few comments.

A. Dvorkovich:

I am happy to substitute. Thank you. First of all, I would like to thank our friends from Finland and also from Russia for organizing this panel discussion on education, as the Russian government believes that making improvements in the Russian education system is the core of our policy to improve the competitiveness of the Russian economy and society. It is really critical to make these improvements over the next few years, and to achieve a level of education and training that is compatible with modern requirements, in order for Russia to succeed in the world. Any ratings are conditional on the methodology and how exactly they are being done. At the same time, any rating gives a signal that a country or subject should look closely into the issues and problems associated with the rating. I do not think that Russia is so low in terms of education. As a matter of fact, if you take the best Russian primary schools and the best Russian

university programmes, they are probably in the top 50–100 schools and universities worldwide. But those ratings show the average level, not the best schools. I personally think that the best public primary schools in Russia are better than British schools, probably on the same level as Finnish ones and better than American ones. But if you take the average schools, this is probably not the case. I think, while preserving the traditional advantages of the Russian education system, especially in subjects such as mathematics and other sciences, we need to complement that with modern approaches and modern practices that give students the abilities and motivation to learn throughout their lives, and to work on developing themselves – not just to acquire knowledge. The idea now is to give completely different abilities to people, abilities that are needed in the current world. This is what the Russian education system still lacks and this is what we are working on right now. While in the schools it is sufficient to bring the average to the standards of the top schools, in universities we need to change the approach. We need to bring companies, like Sberbank is doing now, closer to the universities and to develop programmes based on professional standards that are linked closer to the real requirements of society and of the economy. Our education system should be developed in a much more open way, both towards society and the international community, especially where universities are concerned. Our system is still very conservative and closed to innovations that are produced worldwide. People are still taught how to deal with technologies and equipment created back in the 1950s, 1960s, and 1970s, and not with technologies that were developed very recently. That is a major issue and a major problem. But we are working on that and we have a plan on how to do it. And with your help and support, we will do it. Thank you. I wish everyone a very good Forum. I will now run to catch another session, but I hope that this Forum will be very useful in finding new approaches and new ideas for everyone. Thank you.

E. Aho:

Thank you, Arkady Dvorkovich. Before we move on, I would like to make a comment on this US figure. If you look at the quality of primary schools, it is easy to explain why the US is lagging behind. Especially compared to Finland, I think the quality of schools in the US is much lower when you look at the average. But the college system in the United States is very good. They are able to bridge the gap by doing that investment. This means that the education system can solve problems, even in the later phases, if the right steps are taken. I would now like to move to Petteri Walldén. Alexey Rakhmanov spoke about business experience. Nokian Tyres has a lot of business experience in Russia as well, selling its products to 40 countries from Russia. Petteri is Chairman of the Board. Can you analyse your experience a bit of the Russian system? You also probably have general comments on the role of the education system in your business as a whole.

P. Walldén:

Thank you, Chair. We started 10 years ago. The first tyre was produced in Vsevolozhsk, close to St. Petersburg in the region. And now we will be making around 50 million tyres this year, with 60% of them exported around the world. This is one of the most effective factories in the world. Let us start with the positives. You asked me yesterday how many expatriates you have in terms of Finnish people in the factory. The answer is 'none'. It is completely Russian management: they are very skilful, very target-oriented and they are doing a very good job. The managing director got his degree at one of the top universities in Moscow, but he also got an MBA in Finland. So I think this is a good combination and comes to the point of the international education system, as was mentioned in the beginning. I think these kinds of things would be good in the future to widen the perspective of the Russian education system, and to go international. Without the international system, you are a little bit isolated. In the factory itself, I

called Andrey yesterday and asked how the education system was working, and there are a lot of things to improve. They have tried to cooperate with the local institutions and schools to get operators and other workers at that level, and there is a lot of potential to develop them. Practically, we are training all the people ourselves in the factory, according to what is needed. And then we try to keep them there for the long-term, because this is quite an investment also, from our part. Generally, I do not know exactly where the Russian education system stands, but I see the curves there are indicating perhaps something. But if you compare to Finland in the primary school, I think that this system of comparing different countries is mostly based on the fact that all the teachers are university-educated. That makes a difference. There, Finland gets a lot of points. Still, there are many things to develop. Universities are very good, yes, but I still see a lot of potential for people studying in the university to develop the systems and openness. There are very good ones, and then average ones. In terms of the staff training mentioned earlier, I think Germany has been very good at this – working with operators and with business. In Finland we are lagging behind there. There is maybe some power game going on with the Ministry of Education and industry with this. It should be more pragmatic there. We have to remember that, like in Russia, where your population is going more down than up at the moment, we have a demographic risk in the future. So every talent should be utilized somehow, whether in industry or society. Always, at least in Finland, there are young people who do not like school, or do not like theoretical subjects, and they drop out, which is one problem. I do not know how big this problem is in Russia, but in Finland it is quite remarkable. There is a need to develop systems for getting the dropouts back into education. Many times they are very skilful with their hands but not so keen on the theory. They will learn the theory later on, when you get them back into work, for example practical work, and so on. I think that is one area to bring up here: how to take care of everybody, not only the best universities? Those will manage anyhow. You have to take care of the whole

population, the whole student talent bank, because in society there are many kinds of jobs, not only managing directors. Managing directors are a very small minority in the population. I think that in the education system it is also important what kinds of teachers you are educating and what kinds of education programmes you have to challenge people to be creative, to get them involved in the teaching processes, not only from the top-down. “This is the truth. Do this” doesn’t work. That way, you will lose a lot of opportunities. To get students to challenge at every level what is true, to rethink, that means creativity, and that is the basis for innovation, which is what is needed to renew the entire country’s economy. That is my first comment.

E. Aho:

Thank you. I have two panellists left and I think both of them have the background to be able to analyse from a broad perspective the discussion we have already had. Anatoliy Chubais has been in government – a vice-premier – one of the most well-known reformers of the Russian economy. You also executed the electricity reform in a very impressive way in this country. Do you think that Russia needs substantial education reforms and is it easier to do that kind of reform than an electricity reform, or is it more complicated? Anatoliy. And congratulations! Anatoliy just had his birthday and he has achieved an important milestone.

A. Chubais:

Thank you, thank you. The best way to celebrate is to be here with you. Thank you. Mr. Aho is very, very diplomatic, with all his unique experience. I have a general understanding of what he is saying, I mean that I am probably the only member of this panel that does not know anything about learning or about the education system, as I am not from this business at all. But at the same time, maybe this gives me a chance to express more general, more fundamental

judgements about what is going on in the education system. These may be a bit more superficial. Mr. Aho, before answering your question regarding the potential reforms that can be made in the Russian education system, I will mention some that have already been enacted. If we try to remind ourselves of what the most important reforms in the Russian education system in the last decades were, it is very easy to recognize where there was the most public criticism in this sector. I believe it was first the Bologna system. And the second most criticized was the standardized exam. Those two points were where there was the most concentrated criticism against what was made by Andrei Fursenko or my ministry. To my understanding it is very, very difficult for us that what we receive the most criticism about are the best and most important reforms we made. To my judgment, those two transformations of the Russian higher education system were the most important and the most sensitive. They helped us to reach a number of different goals, starting with the harmonization of the Russian education system with the European education system, and finishing with fighting corruption. I am absolutely convinced that this standardized exam has deeply undermined the enormous corruption level in the Russian education system. For me that is very, very important. It looks like both of these reforms have by now become irreversible, which is the most important criterion for any reform. I believe they are irreversible – there may be some fine tuning needed, but I would not expect any radical transformation. That is very important. What is going on now in the Russian education system are just attempts to restructure and shrink the system. This makes sense, because we all know that Russian universities are not only the centre of all learning, but are also the way for young students to avoid the army, which leads them to become oversized. What we need now is to become very tough and to shrink the system and restructure. That is what is going on now in Russian higher education. In terms of the previous stage, primary school, as far as I know we will have tectonic changes in primary schools in the next five to ten, to fifteen, years for demographic reasons. Remember that

we have had problems with kindergarten for demographic reasons, and this will come to primary schools in the next five years. There will be a doubling or tripling of the number of children who will enter primary school, which will create a huge challenge for the whole primary school system in Russia. I am not quite sure that it is ready for it. Maybe I am not involved enough in the discussion, but I believe that it is not just a question of quality, but a question of quantity as well. Those two challenges may become very, very tough for the Russian primary school system. All these changes in the Russian education system demonstrate that it is not in the same situation it was 15 to 20, to 25, years ago. We are transforming it, but probably not enough. I have just tried to give you a direct answer to your question, although I may not be an expert on the subject. I believe that on the high school level we already have quite important reforms. On the primary school level, we will need a huge response to the new challenges Russia will be faced with in the next five to ten years. Based on our own experience, maybe not in the energy sector, but if you allow me, in the innovative sector, where I am now, we believe it is a very important part of all the real innovation processes. By the way, that is the experience from Finland, which demonstrates that without the special efforts made in the learning system and in training there is no way to achieve it. We feel it in our experience. I have a number of practical business steps for when you build a new factory or manufacturing facility, but without the special training programme for staff there is no way to start operating. That is why if you are speaking about staff training in the innovative sector, it is something that has to go in line with the innovation itself. That is why we in RUSNANO have a special arm, which is the Foundation for Education and Infrastructure in Innovation. To put it in a more practical sense, what we are doing to support education and training and what we are doing for our investment, these two steps should be coordinated or you will not achieve any result. Maybe another lesson we can draw from our practical steps in the learning sector is that learning is something which, when I was young, was accepted as sort of a one-time

experience. Children grew up and went to school and then went to university. Maybe one would get a PhD, and that would be enough. Now we live in an absolutely different world, where education and training are something ongoing that we need to repeat again and again. I feel it in my own experience: in RUSNANO, the first year we started lectures from the best professors discussing nanotechnology. Now we need to repeat it again. We need to get the new skills, otherwise we will lag behind. So we need to accept it as an ongoing process. Ongoing processes are a big part of e-learning. We pay a lot of attention to e-learning in RUSNANO. There is a lot of feedback based on the quite good experience of MIT sharing their e-learning IP, which is helping us develop e-learning in Russia to a great extent. Maybe the last point I would like to mention is that, in our experience, we understand that if we need really high-level experts in Russian innovative business, we need them to be able to combine three types of skills: first, basic natural sciences (physics and chemistry), otherwise, it does not work; second, basic management skills, microeconomic skills, this is very important; third, they need to have some basic innovative skills. It is a special world. The innovative economy has special laws that are different from the regular economy. Without this third ingredient, you will not get real experts in innovation. That is why we started in one of the best Russian universities, Phystech, the Moscow Institute of Physics and Technology. In Moscow, we established a Chair for Technological Entrepreneurship, where we try to foster these managerial and innovative skills in the master's degree holders who have unique skills in basic science. At Phystech, they are probably the best. What we are proud of, and I myself as the Chairman of this chair am proud of, is that we have, I believe, 25 or 30 graduated students and some of them have already used their master's work to create some new device and the business to produce this new device. Then, after graduating from Phystech they start up with this result of their master's work. Some of them are quite successful with their startups, which demonstrates that there is a huge practical need for the

programme. This is our experience in our first steps in the learning system in the innovative section of Russia.

E. Aho:

Thank you, Anatoliy. We are used to ladies having the last word, at home at least, and in this panel as well. Sari Baldauf has a background at Nokia, she had many roles in the board of Nokia, and now she is Chair of the Board at Fortum, so she is currently operating in the energy sector. You have a really broad experience of business. How do you see the role of education reform? When we have your comments, I hope we will then shift our attention to concentrate on the Russian–Finnish relationship, and how we can utilize our proximity in making reforms both in Russia and in Finland. But first, Sari Baldauf.

S. Baldauf:

Thank you. Maybe I will just make a few comments. I would like to start with what was discussed by Mr. Katkalo in the beginning, which is that we are undergoing really tremendous megatrends in this world right now, and these are transforming most of the businesses and the areas that we work in. Of course this means that there are immense requirements for skills development, and immense requirements for education. I think it was really descriptive how you said that, “The bank is no longer a bank; it is an IT company.” This is happening to many businesses. I am here representing Fortum, which has been in Russia for a very long time: we have 4000 people here. It used to be that when people thought about the energy industry they imagined it was something really long-term, and that a quarter was like 25 years. This is not the case anymore. The business landscape is changing rapidly and one needs to adapt. There are two conclusions from this: one is that we really need to think not only about learning about new skills, but also about another thing that is much more difficult. That is: unlearning old habits, and unlearning old ways of doing things. We have already

discussed staff training and training within companies a little bit, and because of this there is a big challenge for the companies and for the education system to come up with the new skills that are required for the future. That is one thing I would like to say about these ongoing paradigm shifts. And then, related to that, another lesson in my mind is that we look at these international statistics and comparisons and benchmarks and we need to be very aware that the world is changing, and we should never be complacent because there are a lot of people who are really working hard to improve their education systems and other parts of their societies, and not sit on our laurels, but keep developing all the time. Many things have already been said here. Since there are these big changes taking place, we need to understand what the future may look like, and we need to try to figure out how to get there, and in most situations this requires a lot of collaboration between different companies and it requires collaboration between different competence areas. Two things: the change is systematic, so it requires networking and social skills. Networking skills will become a lot more important going forward than they have been in the past, together with the science skills, the management skills, and all of that. So those are the points that I would like to add at this point of time.

E. Aho:

Thank you, Sari. Now we have roughly half an hour's time to discuss this more completely. Well, we have taken some concrete steps, but maybe to concentrate on areas where Finland and Russia can do something together as well, or where we are facing some challenges which are just Finland specific or Russia specific. Now I invite the first row to join: if you wish to comment, please raise your hand and I am happy to let you comment. Also, the audience: if you have questions or comments, please, the floor is open for comments from the audience as well. Alexey Rakhmanov would like to start. You probably have some experience from Finland to share with us as well?

A. Rakhmanov:

I really want to anticipate the discussion and to go back to the discussion of basic education and to give a few examples. I was thinking and listening to all the presentations and I came to the maybe very strange conclusion that if you want to compare the Russian education system and the western education system, you can imagine that the Russian one is art and the western one is craft. It is like you are giving a skill to someone to do. I worked at Ernst & Young in London for two years. I was surprised when I spoke to my auditor colleague. I said, "Why don't you go to university? Why don't you get more education? Why don't you get a PhD?" He said, "I do not need to." He studied for one or two years, he became an auditor, and he said, "I am absolutely happy. In three years' time I am a senior manager, in five years' time I am a director, then I am a partner, and I am getting my half million pounds, and I am happy: family, house, flat, everything else." It is a very different approach. There is another example I want to give, in terms of unlearning – I like that thesis very much. Coming from my experience in the automotive industry, when western companies came here to establish assembly factories, they did not take a single employee who had experience working with Russian automotives. Why? Different approaches. Coming back to my first statement on art: when they started working on western cars, Russian employees always made mistakes. When the manager came and asked, "Why did you do this?" They would say, "I thought it would be better if I did it in a different way." And the manager would say, "You do not need to do it in a different way, you need to do it as prescribed and written in that particular chart." Maybe my colleagues who spoke on behalf of the Finnish industry have rarely had that experience, and that probably speaks to a slight change in terms of approach. Last but not least, I think Russian education is learning how to learn how to think. We are giving a sort of tool that can make Russians much more flexible in terms of adopting different systems. I believe that when we talk about

how we can cooperate in this area, I think first of all we have to speak the same language, and let our education systems understand each other. Where are the differences? Where are they coming from? And how can we make this diffusion in order to make it better for both countries, not only for Russia? We are not perfect, but we have something to share.

E. Aho:

Thank you so much. I hope that in the discussion we can also touch upon one aspect that has not been discussed in a complete way. When we have been speaking about digitalization, it is not only society and economy that is going to be digitalized, but schools and the education system as well. When I went to school in the 1960s we were able to learn what the teachers were able to teach. Now the world is open: all the information is available. The role of teachers is going to be completely different. In Finland we are analysing the level of education, or the quality of education by looking at class size, saying that it is bad if the class size is large, and good if it is small. But there is no evidence that it is relevant. Actually, it is irrelevant, because in some cases a school class can contain hundreds of thousands or millions of children or young people, or in some cases it could be a private class. What is going to change is that digital technology is changing training and education in a massive way, and personalized learning will be able to be executed. This is a very dramatic change as well. My question is: what can Finland and Russia do together in that field? Can we do something? I already mentioned this global education programme, so that Russians will finally be funded by government money to go abroad and to get master's degrees or PhD degrees. I do not know if Finnish universities have been able to use that. Do you know if that kind of programme exists?

R. Lumme-Tuomala:

Yes, it does. Naturally I come from Aalto University Executive Education, which is, of course, a multidisciplinary, very innovative combination as such, and a collaboration between Russian universities, your previous school for example, the Graduate School of Management in St. Petersburg. We are trying to work really hard in research exchange, etc., and in digitalization. In terms of attitudes, for example, we have discussed the differences that I see between Russian companies and Finnish companies quite a lot, because we of course do staff training. Among young people, the attitudes are quite the same: to go towards that kind of operation, and the programmes will certainly exist more and more.

E. Aho:

Mr. Sharonov, would you like to give some advice for Finnish companies, regarding what to do in Russia in order to get the good talent and skills they need for their business? What is your recommendation?

A. Sharonov:

Thank you. I am Andrey Sharonov. I am a dean of the Skolkovo School of Management, in Moscow. It is a little bit of a difficult question for me. If you do not mind, I will try to go through some of the issues brought up by you and your colleagues regarding training and education. First of all, I will relate to you the Russian situation in training for adults. It is a part of our business. I see that education in Russia is not valued. If we are talking about adults, and about many companies, I do not see that training processes are really valued by CEOs, for many CEOs. It is just a part of wording. We often see CEOs use the words: 'people are important'.

E. Aho:

It was too strong a statement.

A. Sharonov:

Yes, a sort of protest, probably. But really, I think that training is not a core value. It is not part of the main set of an average CEO in Russia. My second statement is that lifelong learning and education in Russia is still a metaphor. It is not a part of tradition for an average person from the workforce. Soft skills versus hard skills – I still see that soft skills are paid less in terms of attention, compared to hard skills. We have a lot of groups with good engineering skills but which lack even a minimum of managerial skills. I guess this is also typical. By the way, we are trying to meet with Alexey to discuss our cooperation in terms of training for people from our shipping company, and I hope it will happen by the end of the week, month, or year, or by the end of this day, after this session. Still, it is interesting that you could see this picture during the crisis: a lot of companies just cut costs for training completely. A very small number of companies tried to find some answers through the crisis in the training process, in the brainstorming, trying to get to the school and trying to enlarge the horizon, the discussion, the point of view, as opposed to the majority that just cut this cost as unimportant though the crisis. Finally, what I would like to say (and maybe it could be advice for a Finnish company in Russia) is that we like to provide some sort of project-oriented education. The final result of education is not just the number of hours people spend in the auditorium. It should be projects from the top list of the company, which are established from the very beginning by the CEO or owner of the company. The final result is a project as such, and the training, lecturing and testing are just a part of the process, but the final results are a project that was needed anyway by the CEO or by the owner of the company. This combination of training and consultancy, I suppose, is a more productive way to train people and to solve the problem in terms of the current agenda of the company. Thank you.

E. Aho:

Thank you. The next speaker is Jyri Jukka Hakamies, the General Director of the Confederation of Finnish Industries. Jyri.

J.J. Hakamies:

Good morning. I just want to continue the theme that the chair raised: e-learning. You showed figures suggesting that Finland is leading in education, and our schools are among the best in the world. But when we talk about e-learning or digital learning platforms, Finland is not leading anymore. Instead, we are a little bit behind. We now have a new government, which was nominated about a month ago, and it has decided to invest a lot in digital learning platforms, to put their education in a network, but I am sure it will also modernize education. There are many advantages to digital learning platforms. For example, you can bring education to rural areas and you can save on costs. The third thing is that you can attract students. As you mentioned, the biggest universities have hundreds of thousands of students in the so-called massive online open courses – that is a growing trend. One thing is that, for example, there are results that young boys in Finland are now better at English skills because they play games, and games are usually in English. So, there are many ideas to combine the game industry and the learning industry. To summarize, this is a step that the new government will take in Finland, and even though we have different alphabets, I am sure there are cooperation possibilities between Russia and Finland and between our companies.

E. Aho:

Looking at this digitalization, is the future model that it is going to happen the same as with banks? If you ask young people today what a bank is, it is no longer primarily a physical thing, rather it is a network. Maybe in the future a

university will be more of a network than a physical place. I think Sberbank's experience is a good example of Russia doing well in certain areas.

V. Katkalo:

Thank you. I would like to make a couple of comments on what was discussed in the recent hour. First, I would not be afraid of these international comparisons of the national education systems. Why? Everyone here, and most in the room, are people in their 50s and beyond. We are talking here about 2015 comparisons for the Generations Y and Z, which are completely different generations with completely different backgrounds, if I may say. It was just mentioned that these people already know, from kindergarten, how to play games, computer games, they live on the Internet, and it is not coming at their school age. It is coming from their kindergarten age. I would say, coming back to these international comparisons, that this is probably a very, very realistic picture, if we speak not about our history, but about 2015 and looking ahead. It is the comparison about competition, and I think the right question to pose is, with whom are we competing today? I think there are only two real challenges here, in this competition: we compete with ourselves, and we compete with our time. Everything else is irrelevant. This is my first point. You asked a few minutes ago, "What about advice for Finnish companies for Russian high-skilled employees?" I think people should really look into Generations Y and Z. This is the major challenge today, by the way, in Sberbank, because people from Generation Y are already coming in at the top expert positions and already in some managerial positions. It is a huge challenge for those who are in the executive positions to understand how to motivate, how to network with these people. Of course, the hierarchical approach is gone when you want to build strong organizations with these people. Let me very quickly make a second point. I think we in Finland and Russia, together, can learn a lot in considering our approach, our solutions, for a really global trend today, when the provision and funding of education is shifting

more and more from public to private. This is a very clear global trend. Of course, we are talking about searching for the right balance here. Certainly there is no one-size-fits-all approach here. There are institutional and other aspects that will tune some national responses to this. But I think with the advances that Finland achieved in the last couple decades, we have a lot to learn from each other, and of course, as mentioned today already, our own experience with Bologna and other reforms are also worth considering here.

E. Aho:

I think we have both reasons to improve our performance. I think the interest of Finnish educational institutions in operating in Russia has been too low, and when Russians want to learn, they are more eager to learn from the United States than from Finland, because maybe Finland is too close and too small, but I think some lessons learned in Finland can be extremely useful, and this proximity means that you can do that in a very efficient way. But then, Petteri Walldén would like to have a comment.

P. Walldén:

Thank you, Chair. A few short comments from real life: I think that even though the alphabets are different, the processes are the same, everywhere, so I think there is easy access to learning, really, the processes from each other. First, I would like to say that teachers' education for primary schools and universities are key issues for the future, because they do not have all the knowledge. As it was mentioned, the kids get all their knowledge from iPods, from Google, and so on. The challenge is that this changes all the time, so they have to be ready for that, and that opens new opportunities for teaching methods, as we have mentioned here. My wife is doing her thesis in the University of Helsinki 600 kilometres away, linking by videoconference following the lessons and lectures and going in person only for the examinations. Easy. Technology allowed her to be far away,

as Mr. Hakamies mentioned. That is the reality today, and we need to utilize that more. Factory recession was mentioned, and there are problems with this. There are problems with the demand in tyres in the Russian market now, but we do not want to lay off people, but rather educate them, teach them multiple skills, and utilize this low capacity time now because we do not want to lose those skilled people. Educating them is an investment for us, because if the economy comes back then we would be in a situation of lacking them. So we educate them and teach them all the skills so we will have better programmes in the future. Universities are becoming more public so, as mentioned, in Finland there have been big changes to the boards of the universities. There are a lot of people coming from the business environment to the boards, so this will change the university approach to teaching. There is no independent academic institution anymore – that is bullshit. Universities should cooperate with society while maintaining their scientific focus, but 50–60% corporate. With regards to what Mr. Chubais mentioned about the management skills, I was lucky to start in the 1960s – in 1966, the Helsinki Technical University Department of Industrial Economics and Management was established. We prepared engineers to have the best engineering skills, but also the best skills in leadership and management to be ready for managerial positions. I think that has been a big success story, and has spread to plenty of other universities too. Maybe more cooperation could be used in benchmarking these institutes in Finland. I fully support all international education. The world is global, and nobody can isolate themselves. You are always stronger when you work together with the rest of the world, and try to implement the best practices, use the best benchmarking and try to send your people out but also bring them back and utilize them – that is the way to get the Russian economy in better shape. Thank you.

E. Aho:

Thank you. Alexander Shokhin, are you happy with the capacity of the education system in Russia to provide skills and talents for entrepreneurs, not only big companies, private or state-owned companies, but also those private sector actors who are extremely important for the future of this country?

A. Shokhin:

Thank you. First of all, I would like to say that in Russia, just last year, President Putin created a national council to promote professional standards and professional skills. He appointed me, in my capacity as president of the biggest employer's association, to be chair of this council. Throughout last year, we worked out about 500 new professional standards in different industries, not only for the state-owned industries like aviation, etc., but also for the private sector. We worked with economist Anatoliy Chubais, and his colleagues from the nano industry, who prepared at least two dozen professional standards, and they are continuing this work. Our plan is to work out an additional 500 professional standards, but this is only the first stage of the process. The second stage is to incorporate these standards in the education system. The idea of the government and president in entrepreneurship is very obvious: to have education standards based on the professional standards and requirements from employers and the labour market. This process is not finalized, but we believe that using the most advanced universities in Russia, so-called Advanced Research Universities and corporate universities such as the Sberbank Corporate University, we will achieve positive results in the near future. The third stage is independent assessment of the qualifications and skills of graduates, from universities, and with medium-level professional qualifications. We just prepared a draft of the law, and we believe this draft will be considered this year in the State Duma and adopted and signed. We are trying to introduce the state system of independent assessment of the qualification of graduates. After that, we will have the so-

called professional standards, education standards and independent system of assessment of skills. And after that, we will have the chance to check how this system works. We need to use best practices from around the world. That is why my question to our Finnish colleagues is to assess our system – all elements of the system I mentioned – in order to amend, improve and correct the system using both Finnish experience and EU experience. We are trying to use the experience of some European countries, including the dual education system in Germany, and German-speaking countries, in the UK, in France, etc. When we build this system and its elements at home, it will be necessary to work together to assess the efficiency of the system and how it works. That is why I would like to invite experts from the Finnish side to work with us in this process. Thank you.

E. Aho:

Thank you so much. Ilpo Kokkila, you are representing the construction sector as well and you have a lot of projects in Russia. Do you have challenges in getting qualified people to execute your projects in Russia?

I. Kokkila:

Of course, we are working on a small scale and so we did not have problems in that sense; we have found good people. However, I think the company has to create a good image in the labour market to attract good people to work with you. One thing that I wanted to add to this discussion is that today these people's knowledge is their skills. This knowledge is in our pocket, in our phones, and all the knowledge learned comes through that. Young people have only to learn to use this package and use knowledge in their practices. Finland is a small country, and for us it is easy to change systems if we compare it to Russia. We are like a laboratory, and I am always a missionary for cooperation between Russia and Finland. In that sense, I would hope that European chairs and representatives will look at Finland and cooperate with us, as we would be good

partners for you in this learning sector. E-learning was mentioned earlier – Mr. Hakamies spoke about this. This is a huge challenge for us and a big possibility for everybody. The last thing I would like to mention is that we are a little nation and it is very important that this learning system finds all the talented people we have in Finland, so it does not mean we need to have the top universities, but find all talented people in our nation. Russia could have the same goal. Thank you.

E. Aho:

Alright, thank you so much. Are there any others who would like to use this last opportunity to say something? Please. Vice Governor of Kaluga region.

Н. Любимов:

Первое. Тест на использование услуг российского образования можно провести в этом зале. Здесь есть замечательные переводчики, которые переводят с английского на русский и на другие языки. Сейчас вы слышите перевод с русского языка на английский. У вас есть возможность оценить уровень нашего образования хотя бы в этом направлении.

Второе, что я хочу сказать. У нас маленькая область, она — как небольшая страна, но мы переняли большой опыт Финляндии. На территории области живет миллион людей, а площадь нашей области равна площади Бельгии. Мы создали несколько технических центров для подготовки по востребованным специальностям, чтобы найти квалифицированные кадры среди нашего населения.

У нас раньше не было автомобильной промышленности, но созданный нами центр, который готовит кадры для этой отрасли, за 6 лет выпустил 12 000 специалистов. Сегодня наш автопром не испытывает кадрового голода, такая же ситуация в строительной и фармацевтической отраслях. Опыт Финляндии очень важен для нас.

Мы переняли и опыт Германии. Сегодня у нас есть дуальное обучение, при котором студенты получают и техническое, и специальное образование.

Реформы нужны, и для нас опыт Финляндии имеет большое значение. Мы приглашаем большие строительные компании участвовать совместно с нами в создании технических центров для обучения специальностям, требующимся именно в строительстве. Это было бы значительно лучше и интереснее, особенно для среднего звена. Тогда и этот график поднялся бы быстрее не только в нашей области, но и во всей России.

Приглашаю к сотрудничеству!

Спасибо.

E. Aho:

Thank you so much. The previous speaker was the Vice Governor of Kaluga. The region of Kaluga was represented here. May I conclude this session with a couple of comments? I will start by mentioning that I think one challenge we face in both Finland and Russia is that the concept of education and training has to be changed as well, because context is changing. We are living in a world that is quite different and changing very fast. And that is why we have to be able to change this concept. When I think of Finland, a rather difficult concept to grasp is that, "Yes, I have gotten an education and training. Now I need work that is in line with the capacities I have. So the government and business have to provide me with an opportunity to use my talents and skills." But the fact is that you have to ask yourself the opposite: "In today's world, do I have the capacities and skills needed today and in the future?" Even when it sounds like a rather minor change in mindset, I think this is a very substantial change. The education system especially needs to be able to understand its role in a very different way – not to provide the skills and talents based on their own agenda, but try to have an agenda that is going to serve the future of the society and economy as a whole. Finally, I think that, by listening to this discussion, we can recognize that there

are good reasons to continue this discussion, and to move on to perhaps a bit more concrete form. I have here Alexey Rakhmanov, who is the Russian Co-Chair of the Finnish–Russian Business Council. I would like to propose that Alexey take this topic on our agenda. We can organize something a bit wider, a specialized programme and look at this sector and see what we can do together – what kind of efforts are needed. We know that there are a lot of important projects going on in Russia. Finnish companies have invested heavily here, but also vice-versa: important Russian investments have been made and are going to be made in Finland. I think this talent and skills issue is going to be very relevant for our future collaboration. And that is why I think we can take this topic as being quite high on our common agenda. Thank you so much. Thank you to our panellists. I think we covered our challenges quite well. Thank you to our first row participants as well, and thank you so much to our audience. I think we did not lose anyone who was here when we started, but we got quite a few new participants, so perhaps this was also in that sense an interesting session. Thank you so much.