

Groundbreaking Technology and Human Capital in the Fuel and Energy Complex: Key Challenges

KEY CONCLUSIONS

Strategic goals in economy could not be accomplished without the development of human capital

"In the Russian Federation, much attention is paid to innovation, digital economy, labor productivity and competitiveness. However, these plans are not feasible without a systematic approach to the development of human capital," Tamara Fraltsova, Rector, Institute of Improvement of Professional Skill of Executives and Specialists of Fuel and Energy Complex Federal State Autonomous Educational Institution of Further Professional Education

PROBLEMS

Gaps in secondary education

"There are certain gaps in the secondary education system. Young people who come to us to study engineering did not take technical drawing at school; in many schools geometry is not taught as a separate subject," Nikolay Rogalev, Rector, National Research University 'Moscow Power Engineering Institute'

"Most of our company's employees are specialists with secondary education, the lack of which has already been emphasized," Dmitriy Golubkov, General Director, Mosoblgaz.

Labour intensification is not matched with adequate pay

"Our working person becomes, to a certain extent, a robot. On top of their set of functions, which are determined by their tariff and qualification reference book, they are engaged in many other things: preparing their workplace, being a driver, a technical cleaner, etc. Those are not the worker's functions, and I can say that the intensification of that person's work makes both them and us talk about the same thing: if we demand additional functions of a person, that person should receive additional compensation," Yuriy Ofitserov, Chairman, All-Russian Electric Trade Union Public Organization.

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Shortage of qualified personnel

"According to our research, by 2030 about 2 billion young people around the world will not have the necessary skills to succeed in their work activities," Vera Vitalieva, Director in the Human Capital Management Practice, Deloitte CIS.

"By 2025, the shortage of highly qualified personnel in Russia will amount to 10 million people. Only 17% of work force today is classified as 'knowledge'; those are the people who are able to do anything other than manual labour. For comparison, in Japan, USA, Germany the share stands at 25%," Artem Korolev, Director, Nadezhnaya Smena Charity Foundation.

SOLUTIONS

Improving the education process

"I believe, the process of continuous, lifetime education is the main trend. <...> I think, if we stop in our development at least at some point, we pause the country's economy," Anastasiya Bondarenko, State Secretary, Deputy Minister of Energy of the Russian Federation.

Balance in the training of personnel of different professions

"The main trends include key skills in working with big data, with the Internet of things, with any kind of software, and skills that the fuel and energy sector is traditionally strong at, hard skills: the hardware, the technological process where everything is strictly regulated, and everything is precise and according to the instructions — that is not going away. However, we can't ignore the fact that the market demands other specialists," Anastasiya Bondarenko, State Secretary, Deputy Minister of Energy of the Russian Federation.

"For some reason, it is believed that the future is in soft skills. It is in this gap between what industry demands and some certain expectations that the key problem lies," Nikita Golunov, Vice-Rector for Continuing Professional Education, Gubkin Russian State University of Oil and Gas (National Research University).

"An important trend is popularization of manual labour and engineering professions. I find it important to point out that our government pays much attention to this subject. In 2015, Prime Minister Dmitry Medvedev signed an action plan for the Russian Government, and in our consortium with the Ministry of Energy, the Ministry of Labour and the Ministry of Industry we implement a project that will soon be redesigned into a communication platform throughout

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the education in petroleum industry", Georgiy Korshunov, Vice-Rector for External and International Affairs, Ukhta State Technical University; Coordinator, National Consortium of Mineral Resource Industry Higher Educational Institutions of Russia.

Government support for personnel training

"It makes sense to mention the current programme, aimed at strengthening our country's human resources. It was launched in 2012, it is called 'Global Education'; in its essence lies the government's financial and social support for people who were able to enroll at the leading foreign universities in key areas," Anna Getmanskaya, Manager of the Global Education Programme, Skolkovo Moscow School of Management.

Digitalization of all spheres of human life

"The digitalization of the Russian electric power industry according to the trends that have already been announced should correspond to the digitalization in the field of personnel management, including new strategies, tools and practices in HR management," Arkadiy Zamoskovnyy, General Director, Association of Electric Energy Employers.

Cooperation between businesses and educational institutions

"We interact with universities, secondary specialized educational institutions; there are more than 300 partnering educational organizations that we interact with; our general partner is Moscow Power Engineering Institute. Together with our colleagues from the university, we shape those standard tools that are going to be used later in specialists training," Dmitriy Chevkin, Director of the Department of HR Policy and Organizational Development, Rosseti.

Preventing emigration of intellectuals

"It is important that intellectuals should remain in Russia; about five thousand of those who scored 100 points at the Unified State Exam in various subjects, mostly in humanities, leave the country each year. We created a club called 'Russian Intellectual Resources'; there are about 20 thousands of those perfectscorers in our club, we work with them all the time," Pavel Krasnorutsky, Chairman, Russian Union of Youth (RUY).

Focus on human needs

"The theory of the economics of happiness is that a person should be happy in their workplace. <...> That has never been said yet, but we have to get used to

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this terminology. A person should be happy, and that applies to young people above all; they do not need a balance if they spend one half or one third of their lives being miserable at their work," Valery Oskin, Chairman of the Board, Development of Human Capital National Confederation.

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