

**The creation of scientific production and educational cluster –
guarantee of the high-quality training of mining engineers of Transbaikal
State University**

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Dynamic development of mineral resources complex of Transbaikal defines the main problem- human resources of main mining and geological disciplines. The Mining faculty of the largest in region institution of higher education – Transbaikal State University (TSU) plays the key role in personnel providing of the mining enterprises in Transbaikal region.

TSU trains engineer- specialists on all mining specializations (there are 6 of them). Today the higher-education teaching personnel of Mining faculty consists of 66 collaborators, 55 among them have an academic degree, 15 of them are doctors of sciences, a lot of educators are honored workers of higher school, scientists, inventors of Russian Federation.

The educational process is occurred with appliance of the most modern computer programs and multimedia products; all necessary conditions for quality improvement of educational process and extra-curricular work with students are established. As is well – known, mining academic science and institutional science are developing in close cooperation with mining enterprises and through the creation of scientific units in enterprises for solution the engineer and scientific problems. Only in case of the developing interrelation between institutional, applied science and mining enterprises the implementation of innovative technologies will be successful.

One of the methods for support this success is the creation of scientific production and educational cluster. Cluster approach to the formation of scientific-educational and economical – informational field of a region is not new. It is well presented in works of the scientists of Orenburg State University – professor Buresh O.V., associate professor Zhuk M.A. and others. They are right, denoting that the high rate of productivity of enterprises and organizations of different levels in different niches of economic system are defined by the groups of close located and connected together enterprises and accompanied organizations, joined and complementing each other in their activity type, presented as cluster. It is also said there about cluster components and its advantages.

For our Federation subject, Transbaikal State University, which becomes the educational, scientific and production, experimental and at the same time material and technical base for the formation of high quality human resources of the region certainly is the main interlink of such a cluster.

More than 40 years Priargunsky Production Mining and Chemical Association (PPGHO), which is the key enterprise of Russian atomic industry, helps the University from the time of its foundation. Thanks to PPGHO the University has the great material resources for mining engineers training: a variety of laboratories and pilot processing plant were founded. Specialists of PPGHO contribute in educational process, participate in work of State Attestation Commission and dissertation committee, and manage the production practice of students.

About 10 years CJSC "Polyus Zoloto", enterprises of which are located in Krasnoyarsk Region, Irkutsk region, Magadan region and Republic of Sakha (Yakutia) closely cooperates with TSU.

From the moment of University foundation, mutual interest and cooperation between University and industrial enterprises become stronger. For Mining faculty, which has a great intellectual potential, the realization of such kind of interaction is possible because of successful scientific research and scientific-applied activity for the benefit of mining industry. Many decades the scientists of mining faculty of TSU carry out the researches in some coal producer enterprises of the region, and in enterprises of mining the ore and placer accumulation, and in the same enterprises students do the production practice, participate in scientific researches.

Such a close cooperation predetermines the formation of scientific production and educational cluster. Structures, which compose the cluster have great opportunities; from the training of high quality specialists according to the demand of mining enterprises to the opportunity of participation in relation system of public-private partnership on the principles of project management.

By this means, the creation of scientific production and educational cluster in Transbaikal with help of described above mining enterprises in field of scientific-educational and production activity of mining profile will allow to solve current important problems for the region.