

Applied Geophysics at Oulu Mining School: Challenges and Solutions

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In order to enhance economically viable and sustainable Raw Materials supply and decrease dependence of EU on imports of raw materials, development of innovative methods of mineral resources exploration and their sustainable use is necessary. This, in turn, requires educating of a new generation of specialists in geosciences capable to develop and use new exploration technologies and to work in cooperation with academy and industry partners at all stages of the mine life circle. As the need for exploration of deep targets grows up, the role of applied geophysical methods in exploration and mining is constantly increasing. Traditionally, education in applied geophysics in Europe was strongly influenced by requirements of petroleum and gas industry. On the contrary, educating applied geophysics specialists for exploration of metal and other non-energy mineral resources did not receive as much attention during two last decades, when universities not directly involved into oil and gas exploration had even to cancel education programs in applied geophysics. In order to satisfy the needs of developing mining industry in Finland and respond to the challenges of new mining activities, the University of Oulu established a new faculty, Oulu Mining School (OMS). The main target for the MSc program in applied geophysics at OMS is to educate a new generation of specialists capable to plan and run multidisciplinary mineral exploration projects. In planning the program we aim to avoid early specialization in one particular applied geophysics technique and to produce well-rounded professionals able to operate in a wide variety of exploration environments and circumstances.