Effects of the green transition on the mining industry, miners' work, competencies and skills

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ABSTRACT

The aim of this paper is to study the expected effects of the green transition in the mining industry, regarding the work of mining and miners' competencies and skills. The results are based on two studies. The first study consists of a survey answered by professionals in the mining sector (mining industry, academia and technology development companies) in Europe and Australia. The second study was conducted through workshops with miners, production managers and human resource personnel within the Swedish mining industry.

The results still show that new technology is expected to contribute to the biggest changes for the mining industry and the work of miners. The mining work is expected to mainly consist of monitoring remote or autonomous systems and to solve problems that arise in the production systems. For the future miners, the most important competencies and skills are predicted to be analytical, problem-solving, and collaborative skills, as well as knowledge of computers and mining. The expected constant stream of new technology in the future will lead to a higher need for continuous further training of miners. Therefore, it will be increasingly important for mining companies to work with strategic development of miners' competences and skills, to strengthen competitiveness by having miners who are more productive, efficient, motivated and to retain competent personnel within the company. In addition, the result shows that there is a common vision that the green transition will lead to more positive attitudes among the public towards mining, because mining is expected to take place with greater environmental considerations and be a prerequisite for the green transition, which promotes sustainable development.