

DEVELOPMENT OF ASSET MANAGEMENT IN THE MINING INDUSTRY

Summary: *The paper proposes an approach for the asset management in the mining industry. Why it is relevant for the mining industry? Mining companies operate in a complex business and operational environment. They also face significant uncertainties related to natural, technical, technological, market, organisational, economic, financial, political etc. influence factors affecting their management and operations. This issue also includes the impact of rare, disruptive events (natural or human made).*

Therefore, the mining industry needs innovative methods for facing increasingly complex reality. A structured and systematic approach regarding its asset management may bring some useful insights for a more efficient decision-making framework. Traditional approaches and tools in decision-making have often been unable to adequately capture, characterize and address those uncertainties and complexity.

The concept of asset management may help in a better understanding of this complex environment providing more realistic insights. Thus, it may help in designing an improved strategic and asset management decision-making framework in the mining industry.

Key words: *Strategic Planning, Asset Management, Mining Operations, Complex Systems, Uncertainties*

RAZVOJ UPRAVLJANJA DOBRIMA U RUDARSKOJ INDUSTRIJI

Sažetak: *Rad predlaže mogući pristup za upravljanje dobrima u rudarskoj industriji. Zašto je to važno za rudarsku industriju? Rudarske kompanije funkcioniraju u kompleksnom poslovnom i operacionom okruženju. One su takođe izložene značajnim neizvjesnostima vezanim za prirodne, tehničke, tehnološke, tržišne, organizacione, ekonomske, finansijske, političke itd. utjecajne faktore vezane za upravljanje i eksploataciju. Ova problematika takođe uključuje rijetke, često katastrofalne događaje (prirodne ili izazvane ljudskim aktivnostima).*

Iz tih razloga rudarska industrija ima potrebu za inovativnim metodama da bi se bolje postavila u toj složenoj realnosti. Strukturiran i sistematski pristup upravljanju dobrima može pružiti nove informacije i uvide za efikasniji okvir donošenja odluka. Tradicionalni pristupi u odlučivanju su često u nemogućnosti da odgovarajuće uzmu u obzir, karakteriziraju i nađu rješenja za te neizvjesnosti i složenost.

Koncept upravljanja dobrima može pomoći boljem razumijevanju složenog okruženja pružajući realističniji uvid u tu problematiku. Taj pristup dakle može pomoći u osmišljavanju efikasnijeg okvira strateškog odlučivanja i upravljanja dobrima u rudarstvu.

Ključne riječi: *strateško planiranje, upravljanje dobrima, rudarska eksploatacija, složeni sistemi, neizvjesnosti*

¹ *Researcher, Research Institute, Hydro-Quebec (IREQ),*

1800 Boulevard Lionel-Boulet, Varennes, QC, J3X 1S1, Canada, dragan.komljenovic1@videotron.ca

Adjunct professor:

1) Department of Mining, Metallurgical and Materials Engineering, Laval University, Quebec-City, Canada

2) Industrial Research Chair "Risk-based Life Cycle Management of Engineering Systems", University of Waterloo, Canada