SOLSA: a revolution in combined sonic drilling and on-line-on-mine-real-time analyses

The SOLSA CONSORTIUM
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ABSTRACT:

Combined mineralogical and chemical analyses on drill cores are highly demanded by mining and metallurgical companies to speed up exploration, mining and define geometallurgical parameters for beneficiation. Furthermore, high quality coherent and complete drill cores are needed to obtain reliable analyses for more accurate geomodels, resource and reserve estimates. At present, analyses are done by exploiting only a single technique, such as hyperspectral imaging, XRF or LIBS. The coupling of different analytical instruments is still a technological challenge. The SOLSA project, sponsored by the EU-H2020 Raw Material program, targets to construct an expert system coupling sonic drilling with XRF, XRD, hyperspectral imaging and Raman spectroscopy. This paper will present the 4-years project in progress, a general, almost mid-term, state-of-the-art.