



Tech increases savings, productivity in mineral exploration

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Canberra: A technology to speed up the process of analysing mineral exploration, saving time and money has been developed by Australian scientists.

"Lab-at-Rig" -- developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) -- allows mining companies to analyse at the "coalface" -- the chemistry and mineralogy of rocks within minutes of drilling, Xinhua news agency reported.

The technology is expected to result in "massive cost savings in drilling, exploration and overall mining operations", according to the project leader Yulia Uvarova.

The technology automatically analyses the cuttings from a drill site, while simultaneously offering traditional sampling methods, meaning companies are not inconvenienced by determining the make-up of the samples, Uvarova said on Tuesday.

She said it would cut down the time it takes for exploratory companies to determine whether a certain area was suitable for drilling.

"If mining or exploration companies have real time information about the mineralogy and chemistry in the drill-hole they can efficiently plan what to do next, whether that is to drill deeper, drill further holes, try elsewhere or to stop," Uvarova said.

"The technology will provide improved decision making and productivity for mineral resource operations," she said.

Currently, some methods of data analysis take up to three months and millions of dollars to determine the results of drilling.

The CSIRO claims Lab-at-Rig can cut the process down to just one-hour cycle and was born out of the frustration involved with waiting for lab results.

"Our `light bulb` moment was in 2011 when a group of researchers were watching a diamond drilling operation near Adelaide and observed the fluid carrying the drill cuttings to the surface."

"They questioned, What if we could analyse the cuttings separated from that fluid in real time?," Uvarova said.

The technology was developed over two years under the Deep Exploration Technologies Cooperative Research Centre (DET CRC).

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