

# THE AUSTRALIAN

## Uni to mine data for deposits

**RESOURCES:** Future mineral deposits in Australia are set to be identified through extensive research using “big data” that has the potential to improve the accuracy of greenfield exploration.

The University of Sydney is involved in the project, which is part of the \$12 million Big Data Knowledge Discovery project, in which computer scientists, financial analysts and natural scientists are combining their expertise in an effort to discover information hidden in massive, multi-layered data sets.

Professor Dietmar Muller of the university said the team hoped to be able to uncover regions that have the highest likelihood of having exploitable mineral deposits buried hundreds of metres under weathered surface rocks.

“In the past year, investment in high-risk mining exploration in Australia has plummeted. Any

information that can improve the accuracy of such greenfield exploration would obviously be highly valued,” he said.

Analytical methods used to predict stockmarket movements will be applied to Australian geological data, collected over many decades, to model the evolution of the Australian continent and pinpoint new mineral deposits.

Professor Muller will join experts in machine learning and analytics from NICTA (National ICT Australia) and in software and big data from Sirca, together with scientists from Macquarie University. “We plan on developing a new space-time data mining approach, exploiting similarities with other research fields such as finance and taking a new look at huge geo-data sets to unravel the structure and evolution of Australia in a global context,” he said.

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