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Austmine

What is Austmine?

Austmine is the Australian mining industry export association comprising companies dedicated to supplying the very best in innovative, cost efficient and practical technologies as well as services to mining operations worldwide.

Austmine membership

Organisations interested in finding out more about what the Austmine membership has to offer are invited to contact the Austmine Executive Officer, **Robert Trzebski** at:

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Unlocking Colombia's mining potential

AUSTMINE executive officer Robert Trzebski says Australian mining technology and service (MTS) companies can add Colombia to the list of stable, high-potential South American export markets following a recent visit during which he signed a Memorandum of Understanding with Asomineros president Arturo Quiros on behalf of Austmine.

The MOU with Colombia's principal mining association will see greater efforts made to facilitate the exchange of mining knowledge and expertise between Australia and Colombia, and open up more trade dialogue around MTS sector opportunities.

Quiros is travelling to Adelaide, South Australia, this month as a guest of Austmine to address the Austmine 2009 conference and has also committed to lead a mining industry delegation from Colombia to Australia in the first half of 2010.

Colombia is Latin America's fourth largest economy after Brazil, Mexico and Argentina, and is a major regional producer of coal. Trzebski said the country was looking to increase foreign investment in exploration for gold, base metals and coal, and would make a bigger pitch for Australian exploration and mining investment.

Colombia's GDP per capital, which is about the same size as Belgium's, has doubled in the past four years, and the country's inflation rate, at 5.3% forecast for 2009, is 2-3% below the average for Latin America. Foreign direct investment, which increased by 373% between 2000 and 2007, was being forecast at \$US7.2 billion this year.

Colombia is a regional leader in business environment reforms, according to the World Bank, and it ranked second best in Latin America for "investor protection" in a Forbes 2008 assessment of more than 120 countries.

Trzebski said the Colombian Government appeared to be winning its war on drug-related crime, a contention supported by statistics and also the country's dramatic growth in tourism in recent years.

Foreign mining and exploration companies working in Colombia include Drummond Coal, BHP Billiton, Glencore, Anglo American Coal, Cemex, Greystar, AngloGold Ashanti and Franklin Mining. "Colombia is definitely a place for Australian MTS companies to pursue business," Trzebski said.

"Operations and personnel safety, environmental and waste management, management of relations with local communities and native titles, and innovative equipment and services, are some

of the things Colombia's mining industry is looking for from places like Australia."

Trzebski also attended the recent PERUMIN Mining Convention in Arequipa with a joint Austmine-Austrade delegation of Australian MTS company representatives.

The event, according to Austmine director and marketing director of Haulmax, Bob Calvert, was one of the best mining expos he's attended, which is saying something for the veteran industry figure.

Calvert and Haulmax were among a 'cluster' of a dozen Australian MTS companies that attended PERUMIN as part of the Australian Government's GO (Global Opportunities) initiative.

"I thought it was a fantastic show," Calvert said. "A very high standard of organisation, exhibits and visitors, and the event had excellent traffic flow over the full week it was run. There were something like 1600 exhibitors, so it was quite a big event."

Another VIP speaker at the upcoming Austmine 2009 conference is Dr Hans Flury, legal director with Peru's Southern Peru Copper Corporation and vice president of the country's Sociedad Nacional de Minería, Petróleo y Energía.

"The mining industry in Peru is certainly forging ahead," Calvert said. "There are a lot of expansions over there, both in terms of mineral processing plants, and greenfields and brownfields mine sites. I do believe there is plenty of opportunity and I think everyone else in the Australian stand at the expo had a positive experience of the event."

Dr Bob Agar, principal of Perth-based Australian Geological & Remote Sensing Services, said in an Austrade briefing in Peru the country had recorded 17 years of growing investment in mineral exploration and development.

"Many projects are now close to development stage," he said.



The technology age and patents

Austmine Chairman Alan Broome envisages a new era, one in which new technology plays a central role in controlling costs, with Australian innovators leading in technological advances in mining. So Australian businesses will need to become smarter at protecting their new technologies.

The biggest spenders of R&D money are the heaviest users of the patent system. These include IBM, Samsung, Microsoft, Toshiba, Siemens, Bosch, Matsushita, Toyota, LG and Huawei. There is no doubt that these companies regard a sound patenting philosophy (and careful maintenance of trade secrets) as critical to their success – they cannot afford R&D and then allow their competitors to appropriate the fruits of their innovative labor.

Anecdotally, the mining industry seems to have had it the other way around. Typically, innovation in mining has been a community event. Scientists and engineers move amongst organizations and share information from one employer with another. By overly liberal licensing or free access, many companies share solutions to problems with anyone having a similar problem. Particularly in the last decade, there was business for everyone, so the boom age fuelled complacency surrounding Intellectual Property.

As innovative technology becomes central to success and longevity in mining, so will the importance of protecting that technology increase. That's not to say the Courts will become clogged with miners' patent disputes. The main use of the patent system is not litigation, but rather respect for the rights of others and beneficial licensing of technology. Organisations will find they are able to offer new solutions to others, for commercially appropriate royalties or in return for an exchange of technology. The new breed of mining innovator will find the money spent on R&D will help them make more money, not by solving their problems or lowering their costs, but by generating licensing revenue or enabling access to others' technology.

The Resources Industry group of Phillips Ormonde Fitzpatrick will be exhibiting at Austmine 2009. Our patent attorneys include chemical engineers, mechanical engineers, metallurgists and chemists, who have seen an increase in enquiries from mining industry clients early with their IP strategies for the new technological age.

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Durable and reliable

Sykes new HH160i is the latest addition to the HIMAX range of durable and reliable auto prime pumps.

The HH160i provides a maximum shut head of 140m and a maximum flow rate of 188 l/sec. When operating at B.E.P the HH160i produces 95m of head at 137 l/sec flowrate.

The HH160i has a 78% efficiency at B.E.P., market leading shaft stiffness and a brand new heavy duty SAE (diesel) bearing frame.

Sykes Group Engineering Director Darren Coles said that the flexibility of the HH160i pump makes it highly suitable for rental businesses and mine sites where application and duties are varied.

"There are many improved features to the HH160i that will make it an attractive option to the pump operators in the mining, quarrying, construction and rental market sectors," said Darren.

"And like all Sykes pumps the HH160i has impeller and replaceable wear plates in 316 s/s as standard."



The new SAE (diesel) mount bearing frame ensures consistent drive coupling alignment, an excellent feature for mobile skid application. Also assisting to keep the maintenance spend down is the oversized bearings that are oil lubricated and fully protected by bearing isolators.

The HH160i is fitted with a high pressure cartridge mechanical seal. The mechanical seal pumps its own glycol quench fluid allowing the HH160i to prime and re-prime on dry run applications.

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SRA reports more green shoots

Enterprise-wide data management in mining is becoming more the norm, with environmental reporting a natural extension of this. SRA Information Technology has focused on providing enterprise level environmental information management systems for some years is now building a bigger international profile.

EnviroSystem, an award-winning software system developed and supported by SRA, has been implemented for major iron ore, nickel and coal producers throughout Australia and overseas. Each implementation has covered many individual mine sites and catered for a full range of monitoring requirements, including greenhouse gas emissions and energy consumption (NGER), water quality and usage, NPI reporting, biodiversity and heritage sites, soil, air and noise monitoring and many others.

SRA's customers include BHP Billiton Iron Ore, Rio Tinto Iron Ore and BMA Coal.

Using EnviroSystem, organisations are able to more easily and accurately fulfil their reporting obligations, including NGER, NPI reporting and the provision of water

information to regulators and others. There is also a direct financial benefit associated with understanding the organisation's environmental situation down to a facility, site or sample point level. Excessive energy consumption from specific elements can be easily identified and analysed, as can water use. Water quality changes may indicate a problem with an industrial process which can then be rectified.

"The days of keeping environmental monitoring data in isolated pockets throughout the organisation, stored in spreadsheets and small databases that are inaccessible to all but one or two staff and in the case of spreadsheets easily lost, are gone, SRA says -

"Data will need to be auditable and retained for the long term. Systems for managing an organisation's environmental impact are beginning to be recognised as core systems and will be given a much higher profile within the organisation in the near future."

SRA is currently working on implementations of EnviroSystem in the US and South Africa.

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A must for safe open pit mining

The Movement and Surveying Radar (MSR), developed by Rock Australia allows for monitoring critical areas over a safe distance in an open pit on a continuous basis, without exposing personnel to the dangers associated with the particular area.

The latest MSR300 version has the capability of providing highly accurate surveying and sub-millimetre slope movement measurements over a distance of 50-2500m. The measurements provide are fully geo-referenced to an accuracy that allows seamless integration with standard Digital Terrain Mapping (DTM) tools. The radar can compensate for atmospheric changes and is also fully functional in rain, dust and windy conditions.

Confidence in the MSR has been established around the world with the system highlighting and indicating a number of instability failures in South America, Australia with the latest being in Indonesia (September 2009). With these timely warnings, loss of life and damage to equipment were eliminated.

On all mine sites the deployed systems



are providing continuous good quality data for ensuring mine safety as well as planning and productivity improvements. ROCK Australia, with the assistance of RRS has ensured a 100% availability of all systems in August/ September 09.

RRS appointed ROCK Australia as an MSR agent in 2006. ROCK which is headquartered in Perth Western Australia is strategically placed to service the Asia Pacific region and provide solutions within the mining and civil sectors.

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Awarded for innovation

Industrea Limited has won global industry recognition for its mining productivity and safety equipment, with the Brisbane-based group's export successes also earning it nominations in top Queensland business awards.

At a recent awards ceremony held in Ontario, Canada for the prestigious Mining Magazine Awards 2009, Industrea Mining Equipment longwall roof support carriers won the category of Underground Mining (Coal/soft rock) – Ancillary and Analysis.

Industrea Managing Director and CEO, Robin Levison, said the size and complexity of the revolutionary new Australian-built equipment represented a material advance in underground coal mining.

"The new carriers allow for 7.3 metre coal seams to be mined in a single pass, producing significant gains in productivity and efficiency as well as safety. Miners no longer need to use the top level caving or 2 pass methods, which are significantly more expensive and potentially more dangerous," Mr Levison said.

Worldwide leader of earth moving simulator technology



With a focus on Operator Optimization and supporting solutions Immersive Technologies has attained a new 12 month record, producing 100 of its advanced simulator modules, or Conversion Kits®, during the 2008/09 Financial Year.

The 100th Conversion Kit® module simulates the operation of a drag

line and was completed for customer Peabody Energy in the United States.

Immersive Technologies has global exclusive technical and licensing agreements with the five leading Original Equipment Manufacturers (OEM). Through these OEM alliances Immersive gains exclusive access to confidential proprietary technical information which authenticates the simulators and its Conversion Kit machine modules providing the customer with confidence.

Immersive Technologies' Chief Executive Officer, Peter Salfinger said, "I am extremely proud of all the employees at Immersive for achieving this latest record. It is testament to our company's continued vision to make every mining and heavy equipment operator in the world safer and their employer more profitable with our simulation technologies."

"A very positive sign for Immersive has been the high level of repeat purchases from existing customers. They are achieving real results from their AE Simulators, including increased operator safety and reduced costs", said Peter Salfinger.

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Industrea has already signed a \$20 million contract with leading Chinese mining group China Shenhua Energy Company to supply six 80 tonne longwall roof support carriers and one 130 tonne Shearer to one of the world's biggest underground coal reserves in Shandong Province.

Demand from China's underground coal mining industry for Industrea's 'best of breed' longwall roof support carriers, collision avoidance systems and directional drilling and methane gas drainage systems has been particularly strong, with more than \$33 million in new orders.

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Coffey and Virtalis team up

The Brazilian operation of Coffey International Limited has entered into a preliminary strategic partnership with the UK's Virtalis, one of the world's leading Virtual Reality (VR) companies.

Coffey general manager of operations in South America, Craig McCloskey, said both businesses have recently signed a Memorandum of Understanding to embed new VR technologies in the mining industry.

"We are pleased to leverage Coffey Mining's specialist knowledge in the minerals industry and Coffey Information's expertise in spatial information technology to deliver extraordinary outcomes to clients, supported by Virtalis' VR solutions.

"Spatial data management is an important tool in providing planning, design, training and maintenance solutions to the mining industry, as well as in many other sectors. Virtalis' GeoVisionary software coupled with



the company's systems expertise, presents an excellent opportunity to expand Coffey's ability to provide high quality spatial data management solutions in 2D, 3D and 4D visualisations."

According to David Cockburn-Price, Virtalis' managing director; "GeoVisionary enables the real-time visualisation of high detail GIS source data, and allows other data, such as geoscience, geotechnical, environmental, sub-surface, geochemical and other specialised information to be overlaid onto it, giving a complete picture.

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T R A D E S T A R T

Assistance for new SME exporters in the Mining Sector

TradeStart, Austrade's program for assisting new and emerging exporters, has appointed a new Export Advisor, Darek Swiderski to assist companies in the mining technology and services sector boost their exports. Darek is based at Australian Business International Trade Services and is working with Austmine members and other mining suppliers to implement the TradeStart program.

Darek is bringing to this role his mechanical engineering background and close to 18 years of experience in export and international trade.

Support is available for small-to-medium mining service and product suppliers in NSW, QLD, VIC.

Businesses can receive assistance with; identifying export business opportunities and potential distributors or partners, assistance with international strategic and marketing plans, support with overseas market visits, and participation in trade exhibitions through Austrade's offices located in over 60 countries.

If you considering getting into export or looking at growing your exports in existing markets, the new Export Advisor, Darek Swiderski can assist.

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Overcoming communications issues

Maintenance & Project Engineering Pty Ltd (MPE) asset management specialists have released mainstay™ Maintenance Solutions an innovative computer software program designed to assist companies overcome the current limitations in the maintenance management process.

The Australian company with offices in Singleton, New South Wales and Oxenford, Queensland has been in operation for more than 10 years and currently employes a team of 30 comprising of engineers and specialists in the mechanical and electrical fields.

MPE General Manager Mick Meissner said the suite of software was developed to overcome communication issues at a Queensland mine and it was this mine MPE chose to launch mainstay™ Maintenance Solutions this month.

"MPE placed an engineer at the mine to undertake a Maintenance Improvement

Project, it was during this period he identified the need for improvements in the maintenance management process.

"Over time the software was developed in house by our engineers to now provide users with four distinct (though integrated) modules for enhancing their own maintenance management processes," said Mr Meissner.

"We believe successful maintenance outcomes are underpinned by sound process, accurate information and efficient resource utilisation and recognise that these outcomes are often difficult to achieve in an organisation where complex shift structures are engaged.

"mainstay™ Maintenance Solutions has been designed for the shift supervisor to complement existing Computerised Maintenance Management Software (CMMS) such as Ellipse, SAP and Pulse," added Mr Meissner.

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New Members

Mumme Products Pty Ltd

GRD Minproc Limited

GHD



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