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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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Brazil insights valuable for delegation

A high-level delegation of Australian mining technology and service providers has returned from Brazil optimistic about ramping up activity in South America's largest country and home to a fast-growing domestic mining industry.

The Austmine group of 17 member company representatives from 14 companies, and trade officials, was hosted by Vale, one of the world's biggest mining houses and Brazil's dominant miner, which sent supply management leaders out to Australia last year on an Austmine-facilitated tour. They were impressed with the calibre of Australian mining technology and service offerings, while the local company representatives were agog at the scale of Vale's planned multi-billion-dollar investment in equipment, plant, technology and services over the next few years.

"These trade delegations are very positive for the industry," said Austmine director Bob Calvert, who is also the international marketing manager for Tasmanian-based Haulmax.

"With the facilitation of Austmine there has been a significant increase in awareness about what Australian technology and services can offer the Brazilian market.

"Austmine is going to concentrate resources over the next 2-3 years on Latin America because of the extent of the growth being forecast, and certainly the focus of big companies in countries like Brazil on adopting the latest technology and ideas. We already have a strong platform for trade with the mature mining sector in Chile. Now we have significant emerging opportunities in Brazil, Peru, Mexico, Argentina and other Latin American countries.

"The board of Austmine has been very much buoyed by the level of interest and the feedback from Vale on this latest trip."

On the back of a visit to this year's Expomin mining show in Santiago, Chile, where a number of Austmine member companies have established a beachhead in South America, the Brazil leg of the tour provided a high level of encouragement for the visitors.

"Amdel currently provides a limited range of services to Vale companies operating in Australia," said the company's general manager business, David Clinton. "We are looking to expand our relationship with Vale worldwide, particularly as our business embarks on an expansion beyond Australia and specifically into South America."

Mineralogy analysis specialist Intellection has an existing base of valued customers in Brazil and is looking to develop "new relationships with Brazilian-headquartered organisations", according to chief operating officer, Christopher Staples.

"Brazil is at the heart of a thriving mining



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Brazil insights valuable for delegation (continued)

industry,” he said. “The region’s strong focus on metallurgy has seen it rapidly absorbing technology in automated mineralogy.

“Brazil is also experiencing a huge surge in energy demand and at the same time is the focus of international greenhouse gas emissions concern. The coal-fired power, oil and gas industries are facing an urgent challenge to produce more energy, with greater efficiency.

“The opportunities in these industries are underpinned by Brazil’s international recognition as a stable and attractive environment for investment, which has grown over the past 20 years as development has made formerly inaccessible areas accessible for business growth.”

Mike Foletti, vice president US and South America for Mine Site Technologies, said the company had targeted Brazil as a strategic South American market to introduce its mine communications technologies. It had communications systems installed in many Vale operations in Canada and Australia.

“As part of our market development plans for Brazil, MST will be introducing the Rajant Mobile Wireless Mesh 802.11a/b/g WiFi systems providing monitoring and control of vehicles, personnel and equipment in openpit operations,” Foletti said.

“We expect this solution and technology will be of significant interest to Vale’s openpit mining operations in Brazil.

“Mine Site Technologies is also looking to identify suitable partners or distributors to represent MST in the Brazilian mining industry.”

Calvert said the Austmine delegation was arranged through the “top end of the procurement chain of Vale”, underscoring its focus on getting leading-edge technology suppliers from around the world interested and active in Brazil.

“Vale is expanding at a great rate of knots, but they want to expand with new technology,” he said.

“It’s a country and a market that is coming of age and I think Australian companies should get over there and be part of it.”

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Full scale improvement

A CSIRO team of fluid dynamics specialists and mechanical and chemical engineers focused on improving processing and reducing costs in the mineral and other industries may have found a way to enhance mixing of highly viscous mineral plant slurries without lifting energy consumption.

The group, headed by CSIRO Materials Science and Engineering Fluid Dynamicist Dr Jie Wu, has demonstrated the effectiveness of altering a conventional slurry-tank impeller blade angle in a model alumina slurry mixing tank. The innovation was subsequently tested in a Queensland Alumina Limited (QAL) mixing tank.

Dr Wu said changing the tank impeller blade angle increased the blade rotating speed and ultimately the slurry mixing velocity by up to 30% without increasing power or introducing bigger motors.

Increasing the slurry mixing speed reduced costly scale build-up on the tank walls, which improved tank productivity.

Dr Wu believes the strategy of increasing the shear rate could be useful for highly viscous slurries found in many other mineral processing plants.

“With a lower-than-standard impeller-blade pitch angle, we were able to increase slurry flow velocity by 30%,” he said.

“The increased slurry flow velocity reduces scale build-up, making the de-scaling task easier. The new design has been successfully tested at one of QAL’s real-world tanks for two years.”

The fluid dynamics team at CSIRO Materials Science and Engineering provides research and development in support of industries such as minerals processing, oil and gas, and manufacturing.

Dr Wu’s team focuses on developing flow improvement designs and innovative flow technologies.

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Haulmax fleet running in Jamaica

A new Australian-developed concept in mine haulage has landed offshore with the commissioning of the first five Haulmax trucks at a bauxite mine in Jamaica.



The 120-tonne payload Haulmax 3775 haul trucks are working at the Schallenburg bauxite mine at Ewarton, Jamaica, where the operator, US-based Washington Group, previously used a rope haulage system to transfer ore over 15km of undulating terrain for processing.

Part of the haul descends about 900m in 9km, hence the Haulmax trucks have additional brake cooling to allow for prolonged braking.

Washington Group selected the Haulmax truck for its prime safety features, including a certified roll over protection operators cab (ROPS) and the braking system, as well as the all Caterpillar powertrain and systems, the robust design, and overall production capability of the product.

Tasmanian-based Haulmax offers three truck models, all of which incorporate the same prime mover chassis.

The 3770G is a six-by-four, dual-rear-axle drive hauler with a payload capacity of 70 tonnes. It is ideal as a prime mover base for use as a service type vehicle, lube truck, water tanker, or an explosives emulsion carrier, and when fitted with a fifth wheel/turntable can be used as a tractor coupled to a low bed trailer for transporting heavy mining machinery such as drills, dozers and excavators.

The 3770D has rear or side dump bodies for hauling of ores or materials with a capacity of 70 tonnes. Various material densities can be handled via a range of body sizes from 30 to 70 cubic metres. The 3775D has a rear or side dump body, mounted in a trailer configuration, allowing a capacity of 120 tonnes.

Various material densities can be carried via a range of body sizes from 50 to 90 cubic metres. The trailer incorporates identical braking and suspension systems as per the prime mover, offering exceptional braking over long downhill hauls.

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Maptek maps expansion course

Mining technical solutions provider Maptek will quadruple production of its I-Site 3D laser scanners after securing a \$A975,000 innovation grant and committing its own funds to the expansion.

The South Australian company says the \$A1.95 million expansion will create 27 new jobs over the next six years.

"Global demand for Maptek's 3D measurement technology lies behind the development planning," said Maptek I-Site development manager, Simon Ratcliffe.

"But home-grown demand from the mining sector has been a large factor in the decision to go for this.

"Our [I-Site] systems, which can be set up and operated by one person, address the current skills shortage in mining and allow sites to operate efficiently while still holding safety as a high priority."

The \$A975,000 grant from the Innovation and Investment Fund for South Australia (IIFSA), a joint Australian and South Australian Government program, would allow Maptek

to diversify and expand its manufacturing capacity to cover emerging products in a rapidly changing technology field, Ratcliffe said. "Laser scanning is moving into the mainstream of modern surveying practice," he said.

"Customers are increasingly seeing the benefits of an integrated solution to their surveying needs.

"With a 27-year history providing high technology solutions to the mining industry, Maptek knows mining and what companies need on the ground."

Maptek is a global company developing 3D software and hardware to help mining companies get the most out of data.

I-Site offers an easy-to-use high technology surveying solution which combines a 3D laser imaging instrument with panoramic, high resolution digital photography for measuring large scenes accurately.

I-Site products had won several innovation and engineering awards and were now achieving commercial success in mining and forensic mapping in Australia, Canada, Chile, Peru, Brazil, Mali, Malaysia, Indonesia, NZ, Spain and Germany, Ratcliffe said.

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Ludowici moves into new era

Leading mineral processing equipment and technology company Ludowici is celebrating its 150th year as a manufacturer and supplier to the Australian and global markets.

Founded in 1858 as a tanner and supplier of industrial components, Ludowici has been listed on the Australian Securities Exchange since 1914 and has grown to be a major supplier of mineral processing equipment and wear solutions to national and international mining markets.

The company's global footprint now includes subsidiary companies in Chile, USA, China, South Africa, India and it has agents in other mining centres.

Ludowici's move to new corporate headquarters, administration and state of the art manufacturing facilities at Pinkenba, Brisbane, in the middle of 2008 will centralise most of the company's manufacturing and is expected to produce cost savings. The world class facility will provide the mining industry with next generation, innovative mineral processing and wear solutions.

Recently appointed Ludowici managing director Patrick Largier said 2008 would be a year of "growth and improvement" for Ludowici as it grasped opportunities presented in the mining resources market.

"Our goal is to be the supplier of choice to the mining industry in all of our product range," he said.

"We have recently restructured the business to provide stronger focus on our products in the market and ensure the growth of our business."

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Engineering feat recognised with award

A 20km conveyor installation at the Curragh coal mine in central Queensland has been recognised as the world's longest single-flight conveyor and earned construction contractor Laing O'Rourke significant recognition at the annual Australian Bulk Handling Awards.

Laing O'Rourke, which designed and built the conveyor, and client Wesfarmers took out the top honour in the 2007 Bulk Handling Facility of the Year (Resources and Infrastructure) category for the Curragh North Materials Handling Project

The 20.02km conveyor connects Wesfarmer's Curragh mine, west of Blackwater in Queensland, and the new Curragh North operation. It began operations in mid-2007. Laing O'Rourke project manager Sean Galligan said the conveyor was capable of hauling 2500 tonnes of coal per hour at 27km per hour.

"While straight short conveyors are fairly simple to design and construct, the design considerations are very complex for a conveyor of this length that also features such tight curves," he said.

The project promises to deliver significant benefits to Wesfarmers by lowering Curragh's coal handling maintenance costs, improving its carrying capacity, and also helping the organisation meet its EPA requirements. Laing O'Rourke's overall contract was for the complete design and construct of the Curragh North materials handling facility.

In addition to the overland conveyor, project works included a 2500tph run-of-mine dump station; a three stage crushing and screening plant; and modifications to increase capacity and improve the existing coal handling systems. This included the provision of a 500t five outlet bin, three new conveyors and upgrading seven existing conveyors.

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Beltana on track for further gains

The Beltana longwall coal operation in New South Wales, one of the world's most technologically advanced underground mines, has chosen Mine Site Technologies' ICCL cap lamps and digital RFID tracking system to support its ongoing safety and productivity drive.

The Xstrata Coal mine, consistently been Australia's most productive longwall coal producers with output of more than seven million tonnes last year, has maintained a strong focus on safety to support its production efforts. Management saw an opportunity to introduce new generation lightweight cap lamps and implement a tracking system at

the same time and opted for MST's ICCL cap lamps and RFID tagging system after an extensive evaluation of available technologies.

MST is supplying to Beltana 200 ICCL Wi-Fi RFID tags, 50 tags for underground diesel vehicles, 18 Dual Wireless ImPact Access Points (Directional AP's), and management software.

In the lightweight ICCL – which is about one-third the weight of the existing lead-acid batteries in use at the mine - Beltana management saw an OH&S benefit, with the cap lamp and tag an integrated unit able to track people for safety.

The MST installation also facilitates vehicle fleet management, including access control into ventilation districts, while the digital network established for tracking can also be used in other applications over time. These could include VoIP telephones for mobile two-way communication.

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TRADESTART

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, Sonja Holoher-Ertl to assist companies in the mining technology and services sector boost their exports. Sonja is based at Australian Business International Trade Services and is working with Austmine members and other mining suppliers to implement the TradeStart program.

Support is available for small-to-medium mining service and product suppliers in NSW, QLD, VIC and TAS. 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 are considering getting into export or looking at growing your exports in existing markets, the new Export Advisor, Sonja Holoher-Ertl can assist.

Contact Sonja at Australian Business International Trade Services on Sonja.holoher-ertl@australianbusiness.com.au or 02 9458 7458.

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