

Rail development key to miners' efficiency focus

Engenium's executive director, Greg O'Rourke, spoke with *AJM's* Oliver Probert about Engenium's work in Australia's rail industry, and what he sees for the future. The Australian mining and resource project delivery specialist is celebrating its tenth year in 2013 and has just opened a Pilbara office.

THE NEW OFFICE, Engenium's second in WA, is destined to complement the firm's head office in Perth. Engenium also has an office in Brisbane.

The company operates as a rail engineering consultant, and provides project management and engineering, procurement and construction management services.

Engenium managing director, Wayne Peel, said the new office would act as a central hub for all staff working in the Pilbara, and would allow Engenium to help clients with their projects on a more personal, one-to-one level.



To limit expenditure, O'Rourke says, the majors are trying to maximise the throughput they get from existing assets. Key to this is an efficiency focus when it comes to the maintenance of those assets.

"The larger operators are looking for increased efficiency in terms of rail maintenance," O'Rourke says. "In line with maximising the throughput of their existing infrastructure – or 'sweating the asset' as it is sometimes referred to – there is often a squeeze on the track time for maintenance.

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Greg O'Rourke, executive director, Engenium

"Even though Perth is close to the Pilbara it is still a plane ride away," Peel said in August.

"Through our Pilbara office we will be able to respond to the needs of our clients. This includes having personnel attend a client meeting, or conduct a site visit at short notice."

An office in the Pilbara seems sensible, given that since 2003 Engenium has been involved in the delivery of over \$8bn of rail projects, including many in the Pilbara.

The company has worked with both Rio Tinto and BHP Billiton in the region, and has also consulted on projects like the on-again, off-again Oakajee Port and Rail project, and Brockman's prospective railway project.

Engenium executive director, Greg O'Rourke, tells *AJM* that in recent times, there has been a clear shift in focus from the major miners in the region.

"They have moved from the schedule being king towards reducing the capital intensity of their projects," O'Rourke says.

"Equally, maintenance of rolling stock and quicker service turnaround of the equipment results in a more efficient operation with a better return on the value of the assets."

Along with maintenance, O'Rourke says the key aspects of railways that need to be focused on to boost efficiency include the quality of the railway itself, and its ability to be improved upon.

"The other thing to look at is can the way in which the rail is operated be improved?" O'Rourke adds. "If so, there is the possibility of increasing the tonnage throughput with a modest capital spend."

He continues: "Are there any elements, for example, speed restrictions, that are reducing current throughput and increasing congestion? Can these be reduced or eliminated, and at what cost?"

All of these things – maintenance efficiency, quality of rail, quality of operations and the elimination of negative elements – can add to

the net present value of a rail operation, according to O'Rourke.

"I think there is increased emphasis on understanding the condition of the rail operator's track, so that maintenance can be better planned and sequenced. Collection of data is part of it, but the key is to be able to analyse and interpret that data, so that the information that goes into the planning is timely and accurate and maintenance activities can be prioritised – both routine maintenance and strategic.

"Then there are ever more efficient track maintenance and construction plant becoming available, which can help operators take advantage of smaller maintenance windows."

An example of new maintenance plant, O'Rourke says, is new ballast cleaning machines, which can remove, clean, and replace ballast in less time than ever before.

Other current trends in track maintenance, O'Rourke adds, include automatic systems with remote control, real-time diagnostics, radars and GPS to be built-into track maintenance machines such as ballast cleaners.

The maintenance of rolling stock is also undergoing some renewal.

"Operators are looking at better ways of carrying out ore car maintenance, that avoid the time consuming activity of cutting out bad order cars, associated shunting and the like by replacing entire bogies 'in line', and then doing the maintenance 'off line' with minimal disruption to the normal operation," O'Rourke says.

Automation is another area of rail that O'Rourke believes holds the potential for maintenance efficiency.

"The idea is that trains can be driven automatically and remotely, allowing maximum efficiency and reduced cycle times," he says. "This is entirely consistent with increasing productivity and maximising the use of the asset."

However, that kind of efficiency doesn't come cheap, O'Rourke adds.

"These sorts of projects take significant capital investment and are therefore long term and high tonnage options," he says. □

About Engenium

- Founded in 2003
- Offices in Perth, Brisbane and the Pilbara
- A subsidiary of ASX-listed Resource Development Group
- Employs over 100 personnel
- Key services include project management and multi-disciplined engineering, procurement and construction management (EPCM) services
- Focused on resource sector, especially mining and rail infrastructure
- Clients include Rio Tinto, BHP Billiton, FMG, and Atlas Iron