

One block at a time

Modular founder and chairman James White reflects on 30 years in the mining industry.

By **Christine Feary**

Modular Mining Systems recently celebrated 30 years of providing information management products and services to mining operations around the world.

Dr James White, the company's chairman and one of its founding members, told *Australia's Mining Monthly* the road had not always been an easy one.

The company was founded as a collaboration between White, then a professor at the University of Arizona's College of Mines, and two of his students. The company grew from the development of Dispatch, a program that optimised the assignment of trucks to loading and dumping points in an open cut mine and produced operating reports during the shift, to offer a broad range of hardware and software products for the mining industry.

White said the idea for Dispatch came one day while looking out over the Phelps Dodge Tyrone mine and seeing a backup in trucks waiting to be loaded.

"In 1975 I took a student of mine, who was working for a Master's degree, to the Tyrone overlook," he said. "The two of us looked down at the mine and saw a shovel with its dipper in the air, with seven trucks lined up.

"I was teaching optimisation at the time as a graduate course. I talked to my student and said, you know there are some very interesting

ways we could solve that problem. We made a pitch to Phelps Dodge in 1978 and they finally funded it, with us working as a group of consultants."

When they first started Modular in 1979, White and his two students had a grand total of \$US12,500, most of which was spent the very next day. Over the next couple of years the company made progress. White eventually decided to resign from his role with the university in 1981 to focus on the business.

The going was not smooth, however, and Modular faced many hurdles in the early days. White said the three founders had all but given up on the company when its first order came through in 1983.

"It was a real battle with the mining industry, no kidding, especially 30-some years ago," he said. "Now it's taken for granted. You have a mine, you need a mine management system. In the early '80s not so, people would say 'well it won't work in my mine', but it would and it did many dozens of times."

To boost Modular's reputation in the industry, White said they followed the advice of then University of Arizona president, John Schafer, to publish and prosper.

"Given that we were broke and couldn't afford advertising, the president and CEO, who earned a Master's under me, and I started writing technical papers, which we

got published in the open literature. That's how we really got the initial orders to build the company."

Over the years, as the industry has become aware of the need for optimisation and management technologies, Modular has continued to grow.

In 1996 Komatsu America Corporation, an arm of Komatsu Limited, based in Tokyo, acquired a controlling stake in Modular and in 2003 took full ownership.

As the last of the founding members to remain with Modular, White was excited to see what had become of the company and the products he had helped to create.

"It's been an exciting rollercoaster ride. I feel that the founders of Modular Mining have made a real contribution to the industry. We've created the technology that is unbelievably valuable," he said.

"We have increasing competition, of course. We created the market and now we have competitors in our market space, but by and large today it's pretty much agreed that you don't open a greenfield property without a mine management system, whether it's ours or someone else's. I think that's good for the industry.

"I'm very happy and pleased that as a former professor I've made a contribution to a major industry." **AMM**

Emerging processing sector gets service facility

THYSSEN Krupp Polysius has opened a \$20 million high-pressure grinding rolls service centre at Henderson, Western Australia.

The facility has been fitted out to handle the servicing needs of the emerging mineral processing technology. Emerging, that is, in mining because HPGRs have been used for some time in other industries such as cement.

The beauty of HPGRs is that they use about 10% of the power draw of a semi-autogenous grinding mill or ball mills yet can handle a throughput of 2500 tonnes per hour. The downside is they are quite expensive to install so most mines would need a large throughput to sustain them.

HPGRs initially experienced problems with

hard abrasive materials, which excluded them for some time from processing copper and some gold ores.

Early use at the Cerro Verde mine in Peru demonstrated this problem. While many thought that trial had been a failure, the Polysius team came away encouraged. Their rolls may have been roughed up but the data recouped was invaluable.

Polysius managed to overcome those problems and apply its technology to copper, gold and other materials.

It is gold that has brought the company to Perth, installing four of its HPGRs at Newmont's Boddington gold mine.

That Boddington link has been memorialised with a 5-tonne piece of

rock from the mine that will be mounted at the Henderson centre's entrance.

Polysius also has HPGRs at Gindalbie's Karara mine, OZ Minerals' Prominent Hill operation and Moly Mines' Spinifex Ridge project. The Henderson centre will link with other Polysius service centres around the world to share information and techniques.

WA Premier Colin Barnett welcomed the Polysius investment in the state.

He has long been an advocate for increasing the value-adding process to WA's mineral wealth and sees the emergence of processing-intensive ores such as magnetite as a sign that this is happening.

Barnett said the Polysius HPGRs would play an important role in this.