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Jeff Whittle says his algorithm can help boost cashflow of mines

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Jeff Whittle, an octogenarian, who as a computer program that can optimise mining projects, boosting the cashflow of mines by up to 100 per cent. Picture: Aaron Francis Source: The Australian

AS fund managers complain about cost blowouts on major resources projects running into the billions, an 82-year-old computer programmer in Melbourne says he can solve the industry's cashflow problems if only it would stop focusing on production volumes.

Jeff Whittle has spent 30 years perfecting an algorithm that co-ordinates such diverse elements as landscape, ore grades, refining capacity and logistics from hundreds of mine sites simultaneously, to boost the cashflow of mines by up to 100 per cent.

"I'm not a geek -- my skills are in making things work -- but this is way the most complicated thing I've ever written, and I've written some doozies over the past 50 years," says the spritely octogenarian who was a finalist in The Australian Innovation Challenge awards this year.

"Mining's messy -- I don't mean dirty, I just mean that everything's different. Most businesses work in two dimensions; mining is three. The ground isn't level, every cubic metre underground is different, and there are constraints like the trucks can't bang into each other, which makes it difficult."

Evy Hambro, head of resources for US-based BlackRock, the world's biggest fund manager, earlier this month lambasted the goldmining sector for its "appalling capital discipline" that had seen it prioritise volume over investment returns.

"It is not rocket science. It really is very simple," Hambro reportedly told a London conference. "It just requires a greater element of discipline, for management not to chase volume growth, and delivering returns for shareholders -- the people who really own the company."

Whittle says his program, for which fees commence at \$500,000 as part of a full assessment of a mining operation, can solve the issue at a stroke. He says miners traditionally optimise individual areas of operation to reduce costs per tonne without considering how they affect other parts of the supply chain, potentially creating bottlenecks in other areas.

"You're asking the miners to do things that are counter-intuitive," Whittle says. "We'll put up the cost of mining and still improve profit. Most mining engineers have minimising cost in their key performance indicators, and they do that by keeping mining constant, mining the same amount every day whether you want it or not, and that's silly.

"It's not an easy thing for mining companies. It has to come from the top. They're embedded in a culture, and it's hard for them to change.

"I told a mining engineer in the US what we were doing, and he said 'My granddaddy did it this way, and that's good enough for me'."

However, not everyone in the industry is so recalcitrant. Whittle's firm has been used by more than 50 miners globally, including Rio Tinto, Xstrata and Vale, and now has offices in South Africa and the US, with another soon to open in South America.

"When you study a \$2 billion project over many mines and you show people how to make it worth \$3bn, people sit up and take notice," he says. "And that's the sort of thing we've done over and over again."

Whittle says he has "no illusions of immortality" but keeps working "because it's just such a fascinating problem".