AI move is good enough to bottle

CAMERON ENGLAND

HAVING just implemented a two-year program to inject artificial intelligence smarts across Pernod Ricard's global winemaking processes, Adelaide tech firm Complexica now has its sights on an ASX listing for next year.

The company, headed up by managing director Matthew Michalewicz, will be looking to raise $25m-$50m to help drive further growth and market recognition of the firm, founded seven years ago.

Since launching, the company, which employs about 70 staff across two offices in Australia and one in Europe, has brought on board customers including Metcash, Dulux, Pfizer, Arnott's, PFD Food Services and Costa Group.

Complexica has been working with Pernod to "digitalise" the winemaking process across multiple sites, and optimise supply chain planning and scheduling activities.

"The project is a global first in terms of using artificial intelligence to globally optimise the end-to-end winemaking process from vineyard through to bottling within a single software platform," Mr Michalewicz said.

"This is something that has traditionally been done through manual processes, spreadsheets, planning boards, and disjointed software systems, and I'm not aware of any software project anywhere in the world that has successfully digitalised and optimised such a complex end-to-end process within a single system.

"Needless to say, that's incredibly exciting and groundbreaking, and the project has also allowed Complexica to further its research into artificial intelligence algorithms for optimising complex, multicomponent supply chains — something that's applicable to most large manufacturers."

Mr Michalewicz said AI solutions were particularly valuable for organisations with large scale and complexity in areas such as pricing, infield sales, supply chain planning and scheduling, demand forecasting and inventory management. For a sales person, for example, to make the best decision with regard to what to offer a particular client, there is simply too much data to absorb. An AI solution can solve this complexity issue, resulting in better results, whether it be in sales, or efficiency gains.

There were, however, misconceptions about what AI was and how it was implemented, Mr Michalewicz said.

"Without going into all the details, the most beneficial implementations of artificial intelligence are those where the algorithms have been tuned to a specific business problem and trained extensively on the available data," he said.

"This process requires time, as well as specialised labour in the form of machine-learning scientists, which makes AI companies selling enterprise software slightly less scalable.

"On the flip side, the benefit that can be gained from a properly tuned and deployed AI system far outweighs the usual benefits that traditional software provides in terms of automation, productivity, and so on. AI can often create a step change in performance."

Mr Michalewicz said when it came to complex business problems, AI is "definitely not 'plug and play'".

"The software needs to be configured to the specific business processes and workflows within the organisation — the constraints, objectives, and business rules need to be defined — and the algorithms need to be trained, tested, and tuned on a variety of different datasets," he said.

"All of this takes time, but the results are worth it."

Pernod Ricard IT director Simon Bennett said the software solution would eventually be rolled out across all of the company's winemaking operations in New Zealand, Australia, Spain and the US.

Mr Bennett said, in simple terms, it was taking a number of processes that may have been carried out on a whiteboard or excel spreadsheet, and bringing them all together in order to be able to make better decisions, cut down on handling and, in the end, make better wine.

"We've got a company-wide digital transformation and Complexica is helping us digitise and optimise our winemaking process," he said.

"What does that mean? Whiteboards to iPads, paper to digital workflow, excel spreadsheets to big data and artificial intelligence."

Mr Bennett said the new process gave the company near real-time visibility of what was going on in its business, when previous systems could lag by up to three days.

"It's also using those data science tools and methods. The volume of data has gone up dramatically. You can't compute it in your head, it's hard even to do it in Excel," he said

"And the ultimately what does that do for the business? It improves the quality of wine because we have less movements of wine from one tank to another because we've optimised it better.

"It improves our safety because we have less activities that happen across the winery, and it improves efficiency — we produce the right quantity, we hold the right amount of inventory, we hold the right amount of bottles, caps, corks, you name it."

Matthew Michalewicz's Complexica is helping bring artificial intelligence to winemaking. Picture: Dylan Coker

Sprawl adds to demand for steel

NICK EVANS

BLUESCOPE Steel boss Mark Vassella says the trend towards a widening urban sprawl is still accelerating in the wake of the coronavirus pandemic, as the Australian steel major looks to spend up to $800m to extend the life of its Port Kembla smelters from 2026.

BlueScope recorded a 78 per cent lift in first-half net profit and projected stronger earnings in the second half, with Mr Vassella, below, signalling the likely relining of a mothballed blast furnace at its Port Kembla steelworks as the company's best option for the future as replacement low-carbon-emission technology won't be ready for commercial use by 2026.

The steelmaker reported a net profit of $330.3m for the six months to the end of December, up from $185.8m in the same period a year earlier, with underlying earnings before interest and tax up 75 per cent at $530.6m.

It said it expected second-half underlying EBIT in a range of $750m-$830m.

The company declared an interim dividend of 6c a share, flat on a year ago, and elected not to extend its share buyback given the outlook for parts of its business was still volatile.

Mr Vassella said on Monday be believed the Australian trend away from high-density living was accelerating in the wake of the pandemic, noting that net migration to regional areas was up 60 per cent and the share of detached dwellings from total approvals was up 6 per cent to 67 per cent in the second half of the year.

"The Australian steel products business had the highest level of sales that it's had for 10 years," he said. "Part of that was the additions and alterations that we've called out, where people at home are thinking about the amenity they have in their homes.

"But there's no doubt we're seeing that shift towards lower density and regionalisation. And that move to regionalisation works well for us."