

ENSURING THE FUTURE DOES NOT WEAR OUT

LASERBOND RECENTLY HELD THEIR AGM, DISCUSSING THE COMPANY'S HIGHLIGHTS OF THE YEAR. **SHARON MASIGE** SPOKE TO CHAIRMAN ALLAN MORTON ABOUT THEIR RECENT PARTNERSHIPS WITH THE UNIVERSITY OF SOUTH AUSTRALIA AND THEIR VISION FOR THE FUTURE.

After 25 years and still going strong, Laserbond has continued in its effort to become a globally recognised leader in innovative advanced surface engineers, products, services, and technologies. Rounding out 2016, they have experienced even more success, including a 10.2 per cent growth in export sales invested in the development of new products and customers both domestically and internationally.

Collaboration is king

One of their biggest achievements so far this year, however, has been their work in South Australia. They recently received what Laserbond chairman Allan Morton described as “small but highly appreciated” grants

from the state government to enhance their manufacturing capabilities.

Morton spoke highly of the southern state, particularly in terms of its manufacturing knowledge and the close proximity of its hard rock mines to the company's new facility.

“A lot of our advanced materials and advanced additive manufacturing suits that so we have a very high fit with what South Australia was looking for - in fact what all of the country should be looking for,” he said.

One of the major highlights of the year however was the company's collaboration with UniSA's Future Industries institute develop - amongst several other innovations - wear life technologies.

“We've already recognised there is an opportunity to extend wear life, if we extend wear life we reduce the cost of mining. The unit cost or the

total cost of ownership - we can drop that - and if you drop the total cost of ownership, everything becomes more productive,” he said.

This comes on the back of the release of the national Ten Year Sector Competitiveness Plan for the METS industry. Released at this year's International Mining and Resources Conference (IMARC), it provides a roadmap for the sector to help increase global competitiveness, including a focus on collaboration between METS companies and researchers and the development of a stronger brand identity for Australia's METS sector.

On a recent trade mission to Canada with Austmine, Morton realised the importance of developing a strong Australian brand to spearhead the country's innovation capabilities. Attending with a team of six, he said

each company was very innovative and had to do seven-minute presentations to potential customers.

He acknowledged that the team did not have a strong brand around being ‘smart Aussie METS’.

“What really got me is once people thought ‘Australia, you guys are really innovative, you guys are really good. But we didn't have a strong brand around that,” he said.

He then pondered what opportunities could arise if Australia did enhance their brand in this space. “Now to me it was a ‘what if’, which is my favourite question. What if we had a strong brand? That we were packaged like that?”

The Living Lab

While on the trade mission Morton also got to experience working in a living minesite or ‘living lab’ where



technologies can be tested without risk of affecting operations or injuring workers. He mentioned the Northern Centre for Advanced Technology (NORCAT) in northern Ontario which enables researchers to test particular technologies.

“Norcat is an operating mine but it provides all of these locations for innovative companies to work in,” he said.

“For example when we get out initial trials on our down the hole hammer, we prove we can get a 300 per cent extension in life, but the thing is we couldn’t run them to destruction. When you’re in an operating mine you’ve got the production schedules that have to be met or you can’t leave a piece of steel in the ground because it can damage downstream processes. But if you’ve actually got a living lab, you can actually go do this. Now you can literally break something, then go down, fish it out, and have a look at it in your own time.”

In collaboration with Canadian company Boart Longyear South Australia and UniSA, the company also has plans to build a living lab.

He also identified the benefits of a living lab when identifying increasingly difficult to find ore reserves.

“The quality of our ore reserves are declining and they’re harder to get at,” he said. “To get more mines you have to drill more holes, so you’ve got to find better places to drill more holes and you’ve got to drill the holes cheaper. So the ‘what if’ question is what if we could actually make the stuff that drills the holes last longer. So that takes you to the living lab.”

‘Three things we know’

Morton emphasised the three key aspects of wear the company knows very well to position themselves as a strong leader in technology development.

“We know a lot about tribology; we know a lot about how surfaces wear and the wear mechanisms that make it wear,” he said. He identified the financial burden of the different types of wear mechanisms, particularly of corrosion, which he said represented approximately 3.7 per cent of the global GDP. He went on to say that between 18 and 32 per cent of global corrosion can be prevented with known technology.

“The second thing we know - we know a lot about advanced metallurgy. We’re very good at figuring out [and] tailoring an alloy for a specific duty so if we know the wear characteristic that’s occurring in a pump or in a drill

or inside a continuous mine, we can start to identify what’s causing the wear and what happens if we tailor an alloy specifically for that.”

“The third thing is we’re very good at understanding how to apply it [the alloy]. So you know what’s causing the wear, you know what metals survived the wear, now you gotta figure out how to attach it to it. So depending on the load conditions, you can design materials to be metallurgically bonded, mechanically bonded, vacuum fused or whatever we choose to do.”

Beyond the valley of death

Laserbond has found collaboration to be one of their greatest weapons to help them across the proverbial ‘valley of death’ - the period of time between when startups begin receiving funds and when they start gaining revenue. Morton said it was also something the SA Government and UniSA had figured out, which was proving beneficial for all parties involved, particularly when it came to innovation.

“Innovation used to be about R&D, and pure R&D and all the IT stuff and lots of great ideas were locked in a cupboard because the ideas were only able to get to the edge of the valley of death. They

didn’t know how to get across,” he said.

“So when you add industry collaboration or strategic partnering together with that, you’re shifting the relationship - you’re not a vendor and you’re no longer perhaps a key supplier - you’re actually pioneering things together, you’re partnering, you’re having an alliance. It opens a huge opportunity.”

“And that’s why I think DSD (the South Australian department of state development) has done a really great job and I think that the department of innovation and science has done well.”

What the future holds

Morton said the company was on track for a forecasted 30 per cent growth this year. They are also planning to invest in a new laser manufacturing technology cell which could open doors for them in the resources sector - allowing them to give greater coating coverage on larger products. Although Morton did not want to give too much away of what the company has in store for next year, he remained rather optimistic over the future.

“There’s no absolute on the future, you just position yourself as best you can until you get there.” ■

