

Intellidesign focuses on Defence

JULIAN KERR | SYDNEY

BRISBANE-BASED SME Intellidesign has dipped its toes into the defence sector, liked what it found, and now believes significant opportunities are being opened up by the drive for Australian sovereign capability.

Founded 22 years ago, the company creates what Sales and Marketing Manager Frank Harrington describes as smart electronic solutions in a one-stop approach incorporating concept, design, and manufacture.

These flow from a 63-strong staff that includes four industrial designers and 25 software and hardware engineers, backed by two automated pick and place production lines for printed circuit boards, final assembly and test.

The company has developed its own enterprise resource planning software, incorporating a robust certified quality system with full traceability and real-time reporting of every stage of the manufacturing process.

The software also provides version-controlled on-screen assembly and test instructions, facilitating a paperless production area.

“We’ve been providing solutions for a



multitude of industries – medical, mining, Intelligent Transport Systems, rail, process and chemical control, civil engineering and the emerging Internet of Things (IoT),” Harrington explained to *ADM*.

“But we’ve recently successfully completed defence-linked projects for Boeing and Northrop Grumman, we’ve got those runs on the board and we’re now looking much more closely at the defence space.”

Commissioned by Boeing to improve a defence electronics design, Intellidesign enhanced the product’s functionality and created cost savings in the manufacturing process.

Asked by Northrop Grumman to reduce the bulk of a suitcase-sized older-generation secure communications device used while travelling, Intellidesign created the SCS-200. This fits into a briefcase and allows safe and secure simultaneous connection to any IP network across the world.

Initial production took place at Intellidesign’s Brisbane facility but was later transferred to the US. The company already designs, manufactures and exports to the UK, US and Sweden a range of ICT boards designed for use in harsh conditions in civilian mission control environments.

“Ultimately we’d like to be part of a defence-linked global supply chain,” Harrington said. “I’ve talked to numerous companies at PAC17 about our capabilities for the maritime and land environments and there have been extremely positive responses.”

“Meanwhile we’re engaged with both contenders in the Land 400 Ph 2 program. Let’s just say this involves build to print electronics”.

Innovation Pitchfest highlights

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AT PACIFIC 2017, the Defence Science Institute (DSI) with the support of the Defence Science and Technology (DST) Group and Defence South Australia (Defence SA) co-hosted a two-day Innovation Pitchfest to seek out the best ideas for technologies with relevance to the maritime defence industry.

Thirty pitchers selected from industry, academia and DST Group each had three minutes to pitch their innovations to a mixed audience of potential partners, customers, peers and venture funding sources.

Best Maritime Innovation went to Jeff Lang of Titomic, who delivered a presentation on an additive manufacturing system that sprays up to 45 kilograms of titanium

or titanium alloy particles per hour across a scaffold to produce a load-bearing structure.

“What excited us was that it is a potential game changer in terms of the costs and efficiencies but also in terms of the scale of what was achievable,” Austrade general manager (Trade) and panel judge Matthew Morgan said upon making the award.

The Best Presentation Award winner was Gavin Brennan of Macquarie University, who pitched a quantum mass radar, roughly the size of a large speaker, which could be actively deployed on submarines as a backup navigation system or as a determinant for satellite orbits.

Henry Bilinsky of MicroTau won the Best Overall Presentation award with his pitch on a microstructure printing technology which has profound implications for reducing aircraft drag as well as for marine anti-fouling practices.

Utilising computer chip manufacturing and UV curable coating technologies, MicroTau has been able to recreate the microscopic riblets found on a shark’s skin, long known to reduce skin friction drag by up to 10 per cent, and print them directly onto a surface, such as an aircraft fuselage.

The technology has been tested by Lockheed Martin in the US and MicroTau has already won a contract to ready the technology for application to a C-130 Hercules aircraft. Australian Industry Group Defence Council executive director and panel judge Kate Louis said Bilinsky was a wonderful presenter.

“He really provided us with something that inspired our imagination, and also has huge potential and great applications for defence.”

Louis congratulated all of the presenters and said it wasn’t easy pitching an innovation in just three minutes.