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By Peter Roberts

## DEFENCE INDUSTRY PARTNERING FOR SUCCESS – FACTORY OF THE FUTURE TOUR MAY 3



***Today we continue our sponsored series reporting on BAE Systems Australia's Partnering for success defence industry supplier event, with a look at what could be the future of industry growth centres in Australia. Here, Peter Roberts tours the Factory of the Future at the Tonsley innovation precinct in Adelaide.***

More than 250 SME manufacturers have demonstrated their products in a near-real life shipbuilding environment at BAE Systems Australia's and Flinders University's Factory of the Future at the Tonsley innovation precinct in Adelaide.

Many have gone through to be considered for use in production of Hunter class frigates now being built at the nearby Osborne Naval Shipyard, and some are even in use in BAE Systems' submarine business in the United Kingdom, according to Jeremy Satchell, BAE Systems Australia business development manager (pictured at right).

Said Satchell: "It is small at the moment, but as things mature you are going to see more of the systems being tested here transitioning into the (Osborne) shipyard.

"And more will also enter our wider global supply chains."

Only a few years ago Tonsley was churning out Mitsubishi's well loved Magna cars, with the business only failing on a corporate decision to produce a larger six-cylinder sedan at a time when the market was embracing SUVs.

Today the factory has been gutted and the machinery sold off, but it is far from silent as it has since been occupied by university departments and TAFE facilities, and a bevy of high technology companies ranging from X-ray manufacturer Micro-X to industrial company Siemens and automation specialist Sage Automation.

Strangely it seems, the site now employs more people than it did during Mitsubishi's heyday, with the jewel in the crown what is seen as a new model to replace our industry growth centres – the Flinders University and BAE Systems Australia's jointly developed Factory of the Future.

On a tour of the centre for visiting SME manufacturer leaders yesterday Satchell points to equipment and systems that are under testing from companies such as wire arc additive manufacturing specialist [AML3D](#), cold spray additive manufacturer [Titomic](#), ultra-low voltage lighting system manufacturer My Modular, along with sensor company Electrocad, positioning company Coda Wireless, 3D metal printer [SPEE3D](#) and automation specialist Demetec.

Of AML3D Satchell points to a panama maritime chock 3D printed by AML3D that holds the prospect of dramatically reducing weight of onboard components and reducing manufacturing waste compared to traditional forging methods.

Walking through a 1/20th scale prototype he shows off a relocatable 48 volt internal lighting system from [My Modular](#) which is being developed to monitor and transmit data of in-ship conditions such as CO2 concentrations.

Said Satchell: "We see real applications for that (My Modular's lighting system) to do a lot more than just provide lighting.

"...We are out there every day working with SMEs and with university researchers.

"And we are uncovering some amazing technologies and suppliers."

One is 3D volumetric display manufacturer Voxon Photonics, which was profiled earlier in this series [here](#), whose display is now in experimental use with BAE Systems UK submarine business.

BAE Systems has found a particularly fertile field in technology-rich companies in other areas of industry whose work can be applied to defence, and especially naval vessel construction.

Tonsley is unlike the industry growth centres which were essentially grant dispensing bodies and the Cooperative Research Centres which support collaborative projects between public sector researchers and industry.

The Factory of the Future works through its close links to both academic researchers and BAE Systems nearby Osborne shipyard which is constructing Hunter class frigates for the navy under a \$35 billion contract.

Dozens of technology trials have already been undertaken in the pilot facility, attracting over 2,000 visitors from industry, government and the community, who want to learn more about how we can build effective research collaborations between researchers and industry.

[Much of the inspiration for the Factory of the Future comes from the successful industry networks the Fraunhofer Institutes in Germany and the Catapult Centres in the United Kingdom.](#)

The Labor federal government and the South Australian state government as well as Flinders have [backed the expansion of the Factory of the Future](#) to the tune of \$20 million.  
and industry.