

Hi-tech partnership to support future frigates

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BAE Systems has partnered with Flinders University in a \$2.9 million program to develop cutting-edge manufacturing technologies in support of the \$35 billion Future Frigates Program.

A grant of \$1.45 million has been secured from the Federal Government's Innovative Manufacturing Cooperative Research Centre (IMCRC), which BAE will match as part of the research program.

The funding will be used to create seven new research positions at Flinders University's digital test and trial collaboration hub at Tonsley.

They will work on new digital technologies, including advanced robotics and assistive manufacturing, which will provide real-time insights into shipyard and supply chain performance, leading to enhanced productivity, safety and quality outcomes.

Craig Lockhart, managing director of BAE's ASC Shipbuilding arm, said the new technologies would be used alongside advanced manufacturing techniques to drive greater efficiency and increased productivity.

"At Tonsley, we are working in partnership with Flinders University to embrace a culture of innovation, conducting research and developing emerging technologies in order to gain an insight into how shipyard workers will interact with digital technologies," he said.



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TEAM: Flinders Uni Vice-Chancellor Professor Colin Stirling with BAE Systems director Sharon Wilson with robotic arms at the university's digital testing hub at Tonsley. Picture: EMMA BRASIER

"An important aspect of the research at the collaboration hub is that we want to share the outcomes with industry, to help educate others on the importance and implementation of industry 4.0."

In October, ASC Shipbuilding and the university announced a partnership to establish the digital test and trial collaboration hub at Flinders' advanced manufacturing research facility at Tonsley.

The latest round of funding

brings the total number of researchers at the facility to 16.

It is expected that by June more than 20 researchers will be working at the hub, collaborating with small and medium-sized enterprises (SMEs).

Vice-chancellor Colin Stirling said the university's research expertise in advanced manufacturing would help to ensure the Hunter-class frigates would be built using world-leading technologies.

"Our strengths in industry

4.0 and cutting-edge digital laboratories will enable the development and testing of bespoke technologies to advance the specialised construction processes required for this nationally significant project," he said.

IMCRC managing director David Chuter said digital technologies – including artificial intelligence, robotics, cognitive automation and advanced analytics – were "redefining the whole Australian manufacturing sector".

"Australian manufacturers, particularly SMEs, need to learn how to embrace and contribute to new work environments that blend advanced technologies and digital skills with uniquely human skills," he said.

"The project researches pathways to successfully adopt new technologies and develop human capabilities that, while focused on shipbuilding, can help Australian industry, as a whole, prepare for a future that is driven by digital transformation."