

MEDIA RELEASE

Leading French and Australian defence research institutes join forces on marine technology

Sydney, 2 May 2018: Australian-French research collaboration on marine technologies has taken a further step forward with the announcement that Flinders University researchers will be collaborating with Centrale Nantes, France.

The announcement took place in Sydney at a ceremony attended by His Excellency Emmanuel Macron President of the French Republic and The Honourable Malcolm Turnbull MP, Prime Minister of Australia, demonstrating close scientific and research collaboration between Australia and France.

Researchers from Flinders Centre for Nanoscale, Science and Technology and Centre for Maritime Engineering, Control and Imaging will be joining Centrale Nantes' world leading researchers on projects focused on two key themes : Additive Manufacturing, and Naval hydrodynamics and simulator development.

The partnership will also provide opportunities for French and Australian students to undertake exchange placements and internships.

This collaboration will initially focus on two project areas.

The first involves marine propellers, and will investigate the use of nanocomposite technologies for manufacturing marine propellers to increase blade strength and reduce noise and corrosion as well as reducing manufacturing costs associated with existing metal fabrication technologies. The project will develop experimental models to explore the feasibility of manufacturing "smart" composites with embedded sensors to monitor performance and assure structural integrity.

The second relates to 3D printing of metal-polymer composite materials. The field of additive manufacturing is still in its early days and there are still many challenges to research ahead of its widespread adoption. The newly formed Centrale Nantes-Flinders University research team will work together to scope and understand the challenges in 3D printing of metallic and composite materials, with the work of the investigative team researchers being at the forefront of additive manufacturing development.

Professor Arnaud Poitou, Director of Centrale Nantes says the collaboration promises to advance global understanding in the field of marine technology.

“Centrale Nantes is pleased to welcome Flinders University to join our world leading researchers in Nantes. The research teams at Flinders will further enhance our efforts in this area to assist in developing the maritime technologies of the future” Professor Poitou says.

Flinders University’s Vice-Chancellor Professor Colin Stirling thanked Centrale Nantes for the opportunity to collaborate with Centrale Nantes Research teams.

“Flinders University welcomes the opportunity to share its defence research expertise on the international stage, and grow its relationship with Centrale Nantes to make a positive difference to an accelerating global industry” Professor Stirling says.

About Centrale Nantes

Centrale Nantes is a French engineering “Grande Ecole” and member of the Ecoles Centrale Group. Its graduate, master and PhD programmes are based on the latest scientific and technological developments and the best management practices. Founded in 1919, Centrale Nantes’ 40- acre campus welcomes 2300 students, including 1400 graduate students, 250 Executive Education and degree apprenticeship students, 240 PhD students and 300 Master students. Research topics of excellence concern manufacturing, healthcare, energy transition.

www.ec-nantes.fr

About Flinders University

With a well-earned reputation for innovative research and excellence in teaching and learning, Flinders University is a member of the Innovative Research Universities network. Globally focussed and locally engaged, Flinders has some 2,700 staff and 25,000 students, including some 4,000 international students from more than 100 countries. 90% of Flinders University’s research has been ranked at or above world standard by Excellence in Research for Australia. Research strengths include defence, engineering, molecular science and technology, and water and environment. Our high tech innovation campus is home to the industry 4.0 Future Factory TMI Hub, and the Flinders New Venture Institute, a leader in entrepreneurship programs.

www.flinders.edu.au

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