

# **Collaborative Transdisciplinary Radiation and Nuclear Science Training in Australia with Academia and Industry**

I. McCarthy<sup>1</sup> # on behalf of RadInnovate

<sup>1</sup> *RadInnovate (ARC Industrial Transformation Training Centre for Radiation Innovation), Department of Nuclear Physics, The Australian National University, ACT 2601, Australia*

Knowledge of nuclear science, radiation and accelerated ion beams is key to many critical areas such as space, managing natural resources, defence, cancer diagnosis and therapy, clean energy, advanced materials and quantum technologies. There is thus an acute need worldwide for a future-ready workforce equipped with sophisticated scientific and regulatory knowledge in radiation and nuclear areas. In Australia, both industry and government also need a new generation of employees who fully understand not just the foundational science and technologies but who can also navigate a rapidly changing landscape for international collaboration, political authorising environments, social licence, environmental management, operational risks and differential impact across Australia's diverse communities and geographies.

The ARC Industrial Transformation Training Centre for Radiation Innovation (RadInnovate) is a collaboration between the Australian National University, the University of South Australia and the University of Adelaide and fit industry partners and peak bodies who use or are impacted by nuclear and radiation. RadInnovate will support Higher Degree by Research (HDR) students and postdoctoral researchers to gain practical skills and experiences through projects co-designed with industry partners and placements across a range of industry partners. The personnel trained within the training centre will thus have the unique opportunity to work together with Australia's leading scientists, research organisations, industry leaders and policymakers. Through this broad-ranging training, RadInnovate aims to grow the next generation of leaders with nuanced understanding of nuclear and radiation areas to translate latest knowledge for the benefit of science and society.