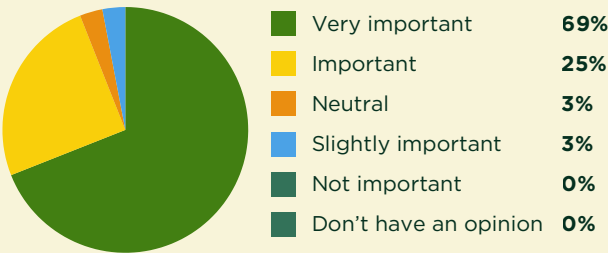


RACI POLICY PRIORITIES SURVEY 2026

IMPORTANCE OF THE CHEMISTRY WORKFORCE AND EDUCATION PIPELINES



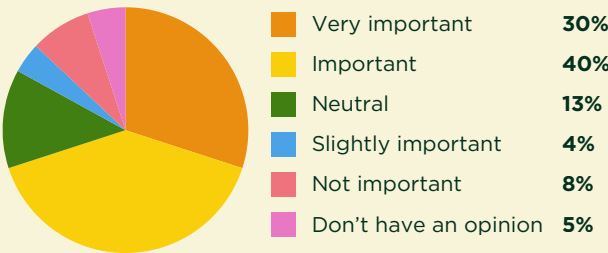
CHEMISTRY WORKFORCE AND EDUCATION PIPELINE PRIORITIES RANKED

- 1st** National chemistry workforce planning
- 2nd** Supporting school chemistry teaching and lab capability
- 3rd** Professional development opportunities for educators
- 4th** Expanding pathways for technicians (TAFE-University integration), and Industry-School and Industry-Teacher engagement
- 5th** Migration settings for chemists and analytical scientists

THE MOST PRESSING WORKFORCE OR EDUCATION CHALLENGE IDENTIFIED

- Weak student pipeline and declining STEM participation
- Shortage of qualified chemistry teachers and laboratory technicians
- Misalignment between university training and industry needs
- Limited employment opportunities for graduates and PhDs
- Poor foundational skills (chemistry, maths, literacy)
- Over-emphasis on academic pathways vs technical careers.

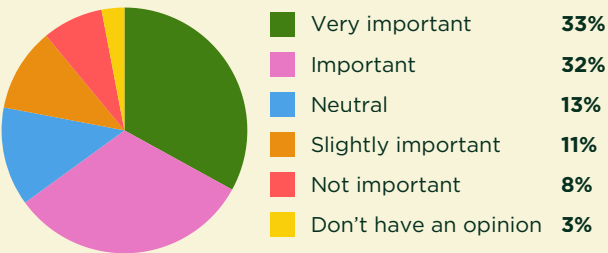
IMPORTANCE OF DISCIPLINE SPECIFIC AI GUIDANCE FOR CHEMISTRY EDUCATION



AI GUIDANCE FOR CHEMISTRY EDUCATORS PRIORITIES RANKED

- 1st** National guidance on responsible AI use in chemistry classrooms and labs
- 2nd** International best-practice sharing on AI-enhanced chemistry teaching
- 3rd** Assessment integrity and ethical AI guidance
- 4th** Teacher professional learning in chemistry-specific AI use
- 5th** AI tools supporting conceptual understanding (not assessment automation)

IMPORTANCE OF AI GOVERNANCE



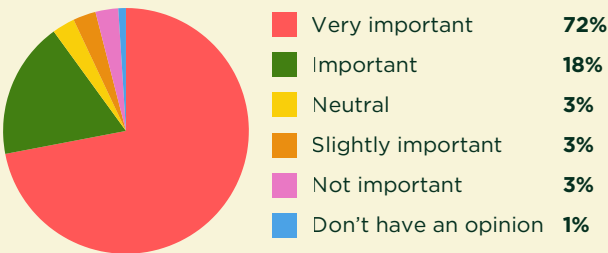
AI GOVERNANCE PRIORITIES RANKED

- 1st** Ethics, transparency and reliability standards for scientific AI
- 2nd** AI in chemical modelling and prediction
- 3rd** AI in regulatory compliance and chemical safety
- 4th** AI in laboratory automation

OTHER AI AND DIGITAL TECHNOLOGY ISSUES

- Academic integrity and AI-enabled cheating
- Over-reliance on AI undermining fundamental knowledge and critical thinking
- Need for human validation of AI outputs
- Lack of standards for AI use in research, publishing, and reporting.

IMPORTANCE OF SCIENCE SYSTEM AND RESEARCH GOVERNANCE



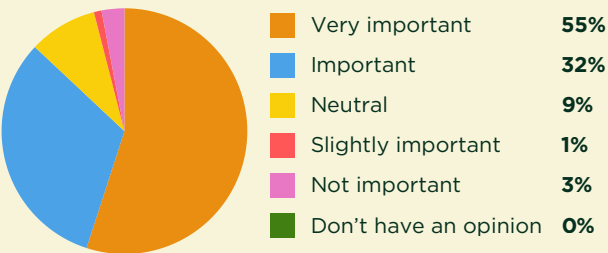
SCIENCE SYSTEM AND RESEARCH GOVERNANCE PRIORITIES RANKED

- 1st** Chemistry representation in national science priorities
- 2nd** Mission-driven funding for chemistry (net zero, environment, health)
- 3rd** National research infrastructure (High Performance Computing, characterisation, collections)
- 4th** ARC grant reform & evaluation metrics for lab-based disciplines

CHANGES TO RESEARCH SYSTEM THAT HAS HAD THE MOST AFFECT

- Inefficiencies and burden in grant processes
- Low funding success rates
- Lack of support for early career researchers
- Perceived bias or lack of transparency in funding systems
- Declining infrastructure access (e.g., facilities closure)

IMPORTANCE OF INDUSTRIAL CAPABILITY AND SAFETY



INDUSTRIAL CAPABILITY AND SAFETY PRIORITIES RANKED

- 1st** Critical minerals analytical and processing capability
- 2nd** Sustainable chemistry & environmental monitoring
- 3rd** WHS/ GHS7 chemical safety guidance (schools, universities, SMEs)
- 4th** Hydrogen standards and safety
- 5th** AICIS regulatory reform and compliance

OTHER INDUSTRIAL CAPABILITY AND SAFETY ISSUES

- Need for sovereign manufacturing capability
- Gap between resource extraction and value-added processing
- Skills shortages in regulatory and safety domains
- Importance of industry-academia collaboration

CROSS CUTTING THEMES

Across all four domains, several consistent system-level themes emerged:

WORKFORCE SHORTAGES AND MISALIGNMENT

- Pipeline is weak at school, technician, and graduate levels
- Need for closer integration across sectors

AI AS BOTH OPPORTUNITY AND RISK

- Strong demand for practical governance frameworks
- Concern over loss of critical thinking and integrity

FUNDAMENTAL SKILLS DECLINE

- Concern over erosion of core chemistry knowledge and lab skills

FRAGMENTED POLICY AND SYSTEM COORDINATION

- Need for national coordination and leadership
- RACI seen as potential system integrator