

Corporate report: Robotics and artificial intelligence research and development: preferred option

Further developments in RAI technology could improve UK nuclear decommissioning in ways that could be faster, cheaper, safer and with less environmental impact.

Robotics and Artificial Intelligence (RAI) is a broad area of technology. It includes interconnected, interactive, cognitive and physical tools, able to variously perceive their environments, reason about events, make or revise plans and control their actions. RAI technologies perform useful tasks for us in the real world, extending our capabilities, increasing our productivity and reducing our risks.

Through our work on emerging technologies, RAI technologies have been identified as technologies that could significantly improve the existing technical baseline for decommissioning the UK's nuclear legacy. Whilst our mission is already benefitting from the use of some RAI technologies, further improvements in RAI technology could significantly enhance the situation. This will require Research and Development (R&D).

This Preferred Option paper outlines our preferred approach for delivering this R&D.