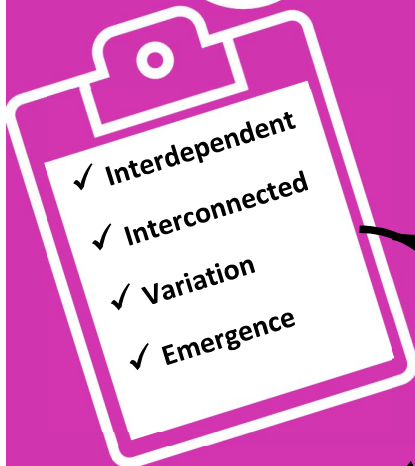


Improving decision making within complex nuclear projects

Elaine Falconer CEng

Nuclear power is a key part of the UK's NetZero strategy and an area of significant public investment. Nuclear projects, however, are tarnished with delays and overspends. Often the reason for the delays is not technical in nature, but instead related to the challenges of managing within a uniquely complex environment. To deliver the promised benefits of nuclear technology we therefore need to look beyond the science and engineering towards systemic thinking.

What is Complexity?



Resilience to environmental changes
Novelty & adaptation

INNOVATION

Complexity has enabled the UK to exploit the power of the atom. From the lab to 20% of our electricity supply in a single life span.



Why is it a problem?



Risk
Uncertainty
Inefficiency
Unexpected outcomes

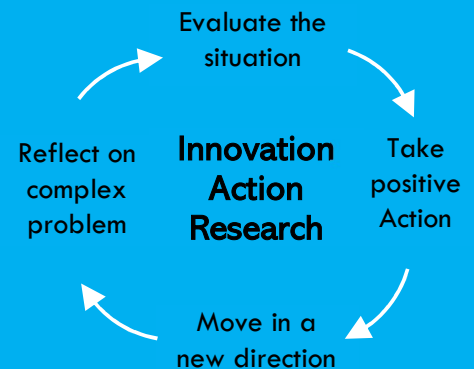
£445 bn
of major public projects at risk of failure

In nuclear projects the effects of failure could be catastrophic therefore there are additional layers of regulatory and safety factors increasing the complexity

Cleaning up the UKs nuclear waste legacy is going to take over **100 years** and cost more than **£100bn.**



What is my Solution?



Initial findings have identified **Critical Systems Practice** as a tool for improving decision making. This methodology offers a more **systemic understanding** of the project using a range of **different perspectives.**

