

Defence and Civil Nuclear



Optima Systems Consultancy is an independent Systems Engineering and Engineering Management Consultancy. We recognise the challenges involved in developing today's complex systems and understand the benefits that a structured Systems Engineering approach can provide, through all phases of a project's lifecycle.

We work with our clients to **break down complexity**, identifying and **tackling underlying problems** in a structured way, and managing the technical and programmatic challenges facing their projects. We pride ourselves on delivering the **independent** and **impartial advice** needed to make pragmatic decisions and develop a balanced system.



We enable client success.

Our capabilities in the Nuclear sector

Optima's team of consultants has substantial experience in Civil and Defence Nuclear environments, within both public and private sectors. Our combined capability extends across all UK Defence domains, including those of nuclear submarine and wider defence programmes. We work with Civil Nuclear clients in the fields of nuclear generation, remote robotics and fusion energy. We understand the risks associated with the design of high-integrity and extended lifetime systems, and the associated challenges of obsolescence management. We are comfortable working in highly-regulated safety and security environments.

Optima specialises in deploying small, expert Systems Engineering and Management teams to work with client organisations. We can also undertake work at our own premises near Bristol. We offer packages of Systems Thinking and Systems Engineering training, delivered online or at client premises and tailored to meet their specific business challenges.

For case studies of our nuclear experience visit our website at https://www.optimasc.co.uk/sectors/nuclear

















Systems Engineering Services



At Optima we use a **Systems Thinking approach** to **Systems Engineering** and broader consultancy, typically applied to complex technologies and industries. Systems Thinking aims to successfully manage the complexity and risk in a multi-faceted project, defining needs through all stages from architecture and design to delivery, disposal & replacement.

Systems Engineering best practice

- Engineering process development
- Systems Engineering & Engineering Management
- System Architecture design & review
- Requirements capture & management
- Trade-off studies
- Technology Maturity & Technical Risk assessment
- Technology Roadmaps and technology insertion planning
- Trials design, planning & conduct
- Data analysis
- System Verification & Validation
- Simulation & Modelling
- Management of Interfacing Programmes & Systems
- Programme & Project Management
- Systems Engineering Training

Enterprise Change

- Engineering process development, best practice & training
- Governance
- Stakeholder management
- Negotiations & facilitation



Independent Assessment & Assurance for Acquisition & Investment

- Independent Systems Analysis & Technical Assurance
- Technology Maturity & Technical Risk assessment
- Pan Defence Lines of Development assessments
- Tender assessment management
- Options assessment & Multi Criteria Decision Analysis















