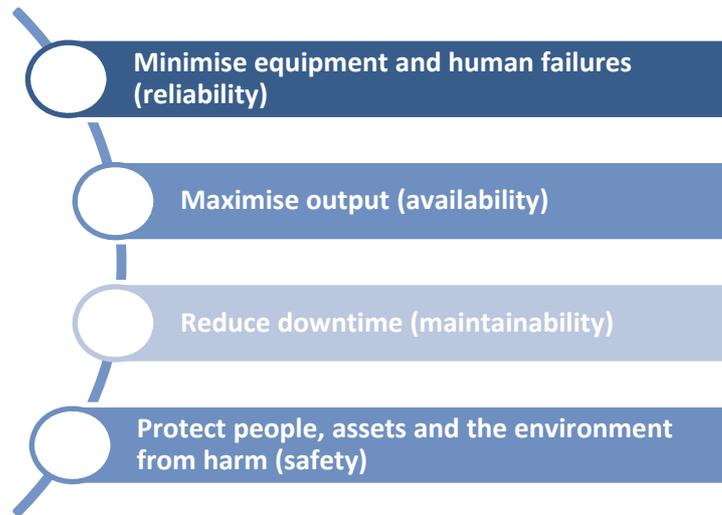




## What is it?

Reliability analysis consists of several interrelated disciplines and techniques which collectively fall under the branch of engineering known as RAMS (Reliability, Availability, Maintainability and Safety). RAMS focuses on assessing and optimising the dependability of systems and components to:



A fundamental aspect of RAMS is the identification, analysis and management of risk.

## Why is it important?

Reliability, to some degree or another, is an attribute of all systems. It is generally agreed that greater reliability is preferable to lesser reliability. However, increased reliability often comes with increased cost. The basis of a successful RAMS program is to find the appropriate balance. For example, the triple redundancy often required for a nuclear safety system, would not be necessarily considered appropriate for say a chemical process plant. Significant cost savings (OPEX and CAPEX) and output improvements are possible by selecting:

- Correct combination of robust equipment specification
- Equipment operating environment
- Equipment redundancy and diversity
- Operating procedures
- Maintenance policy



## What we do

---

Our team members are some of the UK's leading practitioners in the field of Probabilistic Safety and Reliability Analysis. We have experience of applying RAMS techniques to a wide range of industries, including Nuclear Power, Defence, Transport and Oil & Gas. Much of our work has taken place as part of the comprehensive and rigorous periodic Probabilistic Safety Analyses that are required by the Health and Safety Executive for all of the UK's nuclear power stations. Our team members have been involved with this programme since its inception in the early 1980s and based, in part, on this work it is considered that CRA offers experience unmatched by any other consultancy in the UK. The success of the team is attributed to our ability not only to listen to, and clarify, the client's needs but also to influence the client's needs for the greater good of the client organisation.

