



COST MODELLING FOR PROJECT MORPHEUS

Flagship IT project from the Ministry of Defence

Project Morpheus is a large-scale, Information Technology (IT) transformation project from the Ministry of Defence (MOD). It aims to deliver the next generation of Tactical Communication and Information Systems (TacCIS), providing a fully integrated, operational information technology that simplifies the user experience.

The situation

In 2015, the Ministry of Defence (MOD) announced a new Information Technology (IT) strategy - Defence as a Platform (DaaP). This strategy was in response to the IT landscape, which at the time had fragmented architecture, no core common infrastructure and stovepiped systems with duplicated components from multiple providers – all of which led to increasing costs.

DaaP aimed to remove these problems by setting up a unified, common architecture to service all end user services. Project Morpheus is the first installation of DaaP in a real-world, tactical environment.

The brief

In order to approve investment decisions and manage MOD finances, Morpheus **needed robust cost estimates** to be developed in accordance with MOD's financial guidelines. We were selected to provide cost modelling and management support to the Morpheus 'Customer Friend' team during the project assessment phase. This task involved:

- **Reviewing, maintaining and validating** the Master Data Assumptions List (**MDAL**) and the Cost Data Assumptions List (CDAL) as well as supporting the generation of required cost data
- Obtaining, assessing and validating MOD **cost of ownership data** and querying or adjusting as appropriate

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- Assisting in the development of data and assumptions to support the Investment Appraisal
- Maintaining cost data to support the Quarterly Review of Project Costs (QRPC) process and Review Note
- Producing reports for Combined Operational Effectiveness and Investment Appraisal (COEIA), QRPC and other financial review processes

Our approach

Bass Rock prepared detailed engineering and project management information, assumptions and cost estimates for the whole life of the project, including the Assessment, Demonstration, Manufacture, In-Service and Disposal phases.

We applied industry-leading, best practice cost management methods, which allowed Morpheus to gain CAAS Estimating assurance, a key aspect of the project's overall Business Case assurance process.

The task involved assessing a range of engineering, project management, financial and commercial information such as:

- User requirement documents
- System requirement documents
- Project plans and schedules
- Project risk registers
- Assumption registers
- Suppliers' technical specification and commercial pricing documents

We combined this array of information with MOD Subject Matter Expert opinion, to form an accurate understanding of the entire project lifecycle. This enabled us to generate detailed, whole-life cost estimates.

We applied our specialist knowledge of statistical modelling of cost uncertainty and risk to the Morpheus Cost Model, in order to generate the outputs needed for business cases and Annual Budgeting Cycle forecasts.

We consulted a full range of stakeholders (military, MOD civilian and supplier) throughout the process. Our skill and experience in Defence Procurement allowed us to develop a robust cost estimate that will meet Assurance requirements and stand up to detailed scrutiny.

The outcome

The Customer Friend team was able to **complete the MOD financial management** and approval processes, supplying **robust cost estimates underpinned by evidence-based assumptions**.

Customer feedback was very positive, and we have since delivered follow-on tasks as a result of their high levels of customer satisfaction.