IN BRIEF
UK-based consultancy and technology company Techmodal worked alongside Army HQ, Defence Equipment & Support (DE&S) and key supply chain partners to develop a bespoke, data-driven activity planning and forecasting application.

The challenge
To maximise operational and cost efficiency, Army HQ needed to rationalise and exploit highly fragmented data resources within a complex and diverse supply chain.

The solution
VERITAS - a bespoke application that integrates multiple enterprise data streams to create customised workspaces for key business processes. VERITAS provides a lens through which the user can compare multiple information sources and derive unique data insights.

“VERITAS is an incredibly powerful tool and has significant potential to improve both our inventory and fleet management”

- Mark Jenkins, Head of Business Improvement, Army HQ

The benefits
- £59 million cost and efficiency savings across DE&S
- £5.8 million cost and efficiency savings across Army HQ
- Insightful decision-making based on organised and visible data
- Greater forecasting capability across the organisation
- Robust scenario modelling
- Greater staff autonomy
The scope of the five-year project demanded that everyone clearly understood the depth and breadth of the challenge ahead. The focus throughout was on delivering an integrated decision support solution that would work for all stakeholders - a large and diverse network with very complicated needs. The key to success was insightful information.

Techmodal took time to get to know the organisation, its people, its processes, and its priorities. Consultancy teams worked with Army HQ to determine the key outcomes for its departments, while the development teams dug deep into Army data, analysing inventory, usage and financial statistics.

The challenge

Army HQ, Andover is home to the British Army, one of the most highly regarded and best equipped forces in the world. Its achievements are measured through the actions of its people, supported by the best equipment and services for its operations.

In 2012 Army HQ began an extensive review of the purchase and support services provided to it by Defence Equipment and Support (DE&S), an arms-length trading body of the Ministry of Defence. Army HQ identified that significant operational and cost efficiencies could be achieved but only through root and branch technological change.

The Support Directorate of Army HQ invited tenders from companies who could meet the challenge. Techmodal’s data-focused support capability and commercial insight were powerful drivers in Army HQ’s decision to award them the tender.

The company’s ability to deliver what they promised, and the level of trust already established with Army HQ through previous contracts secured the deal. Techmodal and Army HQ were project partners.

The approach

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The solution

Techmodal’s solution utilised Oracle Application Express (APEX), a database-driven development platform enabling rapid building of scalable, secure enterprise applications.

Techmodal combined the functionality of two existing Army HQ models, the Support Activity Planning and Management Tool (SAPMT) and the Equipment Activity Costing Tool (EACT). Activity and inventory data for Army HQ’s equipment, commodities and ammunition was fully integrated, and the team simultaneously created a methodology for cohering DE&S financial reporting.

The result was VERITAS, a unique data-driven application that put control firmly in the hands of the client. Drawing on a suite of forecasting and cost-management tools, Army HQ could quickly and accurately analyse and make informed planning decisions against its short and long-term plans, then share these with its supply chain. The insight provided by VERITAS would transform supply chain operational efficiency and lead to considerable cost savings for the major stakeholders.

The initial version of VERITAS was deployed into the Army Data Warehouse (ADW) in 2013. Today, it is a true enterprise solution with over 1,000 user accounts, using over 120 data feeds across twelve modules supporting multiple Army and DE&S processes.
VERITAS supports the Army in generating a forecast of planned training and operation activity, driven by the Front Line Army units and locations of activity. This includes various forms of inventory, across vehicle equipment and parts, commodities such as rations and fuel, and the global ammunition stockpile.

VERITAS converts this activity into a fully costed plan for DE&S, providing coherence in the Army-DE&S relationship and producing a forecast of equipment procurement and repair, underpinned by VERITAS’ granular financial analysis and forecasting module.

VERITAS allows Army to monitor the quantity and cost of consumption at Front Line units to understand forecast accuracy and trends of reliability. This feeds into Army fleet (Land, Air and Maritime vehicles) management and decision support for improving reliability and availability of equipment.

Throughout, VERITAS provides a wrapper of broad and deep performance monitoring, bringing together Army, DE&S and Industry KPIs and allowing Army to hold its suppliers to account on critical performance elements. This includes monitoring and resolution of critical outstanding spares, a process fully embedded in VERITAS and reaching from Front Line Units through to Industry suppliers.
Techmodal quickly established a highly capable team focused on delivering a robust, sustainable and highly flexible solution. The programme was deliberately user-driven, with teams working together in agile development cycles designed to deliver tangible results quickly. At all stages, Techmodal remained responsive to the client’s ongoing and emerging operational needs.

As the demands of the contract changed so did the size and skills profile of the team. In 2017 it peaked at 30 - a mix of project managers, technical consultants, data analysts, software developers and software testers. The team worked across multiple sites, Techmodal Bristol office, Army HQ in Andover and DE&S in Abbey Wood, Bristol.

In 2019, the current team of 12 provided ongoing support to the VERITAS live system, delivering a range of application enhancements. The work programme was structured around the delivery of three major releases per year.

In the 12 months since 2018 Techmodal has delivered significant system enhancements including:

- **Overhaul of the VERITAS user interface and a refresh of core functionality.** User experience was improved, ensuring the functionality of the system was more widely and effectively exploited.

- **Integrating online reporting functionality into VERITAS to support the management of planned repair items moving through the supply chain.** This replaced a process which relied on emails and offline spreadsheets.

- **Delivery of functionality to support the Command Acquisition Support Plan (CASP) process,** including a standardised set of reporting dashboards and visualization of key performance metrics.

“Techmodal have been an asset to Army HQ over the last few years. VERITAS is an incredibly powerful tool and has significant potential to improve both our inventory and fleet management. We’re very happy to be working with Techmodal again and look forward to what the next few years will bring.”

- Mark Jenkins, Head of Business Improvement, Army HQ
The benefits

Multi-million pound cost and efficiency savings across Army HQ Land environment

VERITAS has transformed the way Army HQ works with DE&S and its supply chain. By centralising and sharing business-critical analytics and forecasting data, Army HQ has made significant savings across its Support operations.

Insightful decision-making based on clear data

VERITAS provides Army HQ with clear insight into its supply chain planning, transforming its decision-making and encouraging a culture of transparency. The application enables the client to exploit and interrogate a vast set of raw data from corporate MoD sources, using interactive dashboards, filterable charts, maps and reports.

Greater forecasting capability across the organisation

Army HQ can forecast activity, demand and supply for Army training and contingent operations, running algorithms across £4.6 billion of inventory and varied equipment, ammunition and commodities data.

Greater staff autonomy

Since the launch of VERITAS, Techmodal has provided Army HQ with ongoing development support, while Army HQ’s own system and support teams have enjoyed a new level of self-sufficiency. Techmodal provides a dedicated support desk function, user guides and an in-built interactive help tool, plus training products to enable staff to learn at their own pace within the organisation.

Detailed performance monitoring

Army HQ and DE&S now have an integrated digital solution to the management of their Command Acquisition Support Plan (CASP) relationship, allowing regular monitoring of DE&S performance against specific metrics for each Operating Centre.

Robust scenario modelling

VERITAS provides a robust scenario modelling capability, enabling Army HQ to quickly assess the impact of its decision-making.

Next steps for VERITAS

The successful delivery of VERITAS demonstrated Techmodal’s capability to deploy complex technological solutions in sensitive government environments. Confident of Techmodal’s ability to deliver exactly what it promised, Army HQ has since requested further modules, including:

- Engineering analysis
- Fleet management re-design
- Critical spares management
- MiR (Management Information Report) – an interactive management tool for stock movement monitoring and overdue stock management

Techmodal continues to work with Army HQ and DE&S as a supply chain and software solutions specialist, and a trusted partner on Army decision support and planning.