

# Revolutionising the protection of troops through Project Virtus

## Customer Profile

Project Virtus is aimed at delivering a new body armour system for infantry which will increase agility and make it easier to carry heavy equipment. Established by UK Defence Equipment & Support (DE&S), Virtus replaces the Personal Equipment and Common Operational Clothing (PECOC) project.

As the foundation of infantry Personal Protective Equipment (PPE), Virtus will deliver an integrated head, torso and load carriage system with a built-in quick release capability. It will be used by dismounted close-combat soldiers including soldiers, marines and airmen involved on land, littoral manoeuvre and ground support to air operations.

## Project Overview

The DE&S sought a prime contractor to significantly improve integration of head and torso systems, incorporated with a load carriage solution and a quick release capability. After an intensive assessment phase of almost two years, the contract for the supply and support of Personal Protective Equipment (PPE) and load carriage was awarded in January 2015 to SOURCE Vagabond Systems Ltd.

A multi-year contract, Project Virtus will supply an initial quantity of 9,000 personal protection and load carriage systems to the British Army based on its dynamic weight distribution system to enhance the effectiveness of the dismounted combatant. The contract is for three years and can be extended by the UK Ministry of Defence until 2026. The first systems were delivered to the army in September 2015.

The first phase of the contract will deliver scalable and fully integrated PPE for the torso, head, neck, shoulders, upper arms, groin and upper leg limbs and load carriage

components; integrating the sub-systems to optimise the whole system capability of:

- Protection items including body armour, plate carrier, extremity protection systems, combat helmets and combat eyewear protection
- Load carriage systems including patrol day sack, Bergen (rucksack) and load carrying pouches
- A complete, integrated system designed to provide the user with a scalable PPE which commanders can use to match protection levels to the threat. This includes an integrated quick release system from the armour in the event of lifethreatening conditions and which also enables quick access to the user's body by medical personnel.

## Robust testing

The Virtus system has been put through its paces by more than 200 members of the tri-service commands, monitored by the Defence Science and Technology Laboratory and the Institute of Naval Medicine.

Major Chris Dadd, DE&S STSP, who co-ordinated the series of trials, said: **“We wanted to replicate the whole range of military conditions that a soldier would be exposed to in order to gain the maximum amount of information, using all available technologies.”**

The trials took place in a range of conditions in the UK and abroad, from a climate-controlled setting at Boscombe Down to the searing heat of Dhekelia in Cyprus. Timed mobility tests over obstacle courses and sensor-controlled biometric assessments also measured levels of stress placed on the body. After this thorough testing, the winning system was proven to perform consistently better than the current system and its three competitors.

**“DE&S is committed to supporting the Armed Forces by providing them with a high standard of equipment and this new personal protection and load carriage system meets that requirement. In challenging troop trials, we found it performed exceptionally well and was an improvement on the in-service equipment. What is key is the integrated nature of the system that enables the soldier to operate far more effectively,” stated Major General Paul Jaques, Director Land Equipment at DE&S.**





## Role and value of Commerce Decisions and AWARD®

Commerce Decisions support and the AWARD® evaluation solution was used at the Pre-Qualification Questionnaire (PQQ) and tender stage. A competition was initiated under the Restricted Procedure of the Defence and Security Public Contracts Regulations (DSPCR) and following the expression of interest and PQQ stages, four companies received Invitations to Tender (ITT).

AWARD® was key to managing the 15 evaluators and their assignments throughout this evaluation procedure and the assessment phase. At the ITT stage tender documents were issued to four bidders, who raised over 200 clarification questions.

Commerce Decisions expert advice was used during the process to help with governance and efficiency. This independent guidance ensured that the Project Team was equipped with the right knowledge to perform the procurement in line with DSPCR procedures and to move to Negotiated Procedure without Prior Notification appropriately. This process enabled the Project Team to arrive at the best outcome for Defence in a robust and transparent way.

Using data and templates generated directly from AWARD®, contract award letters were created to provide bidders with comprehensive information on the tender evaluation. This removed the need for additional face-to-face debriefs, saving on time and resources. AWARD®'s capabilities ensured that each stage of the process was captured and managed, and that decisions were reached with confidence and assurance.

**“The Virtus competition provided a once in a lifetime opportunity to work with a customer with the genuine determination and vision to break the mould when it comes to addressing the needs of the infantry. The award of this contract demonstrates the level of expertise that we have built in terms of enhancing human performance, in an in-field and combat environment,” stated SOURCE Founder and Chief Innovation Officer, Yoki Gill.**

### References:

Source - <http://www.combatandsurvival.com/world-news/5723-new-integrated-personal-protection-for-uk-forces/>

Source - <http://www.army.mod.uk/news/27112.aspx>

