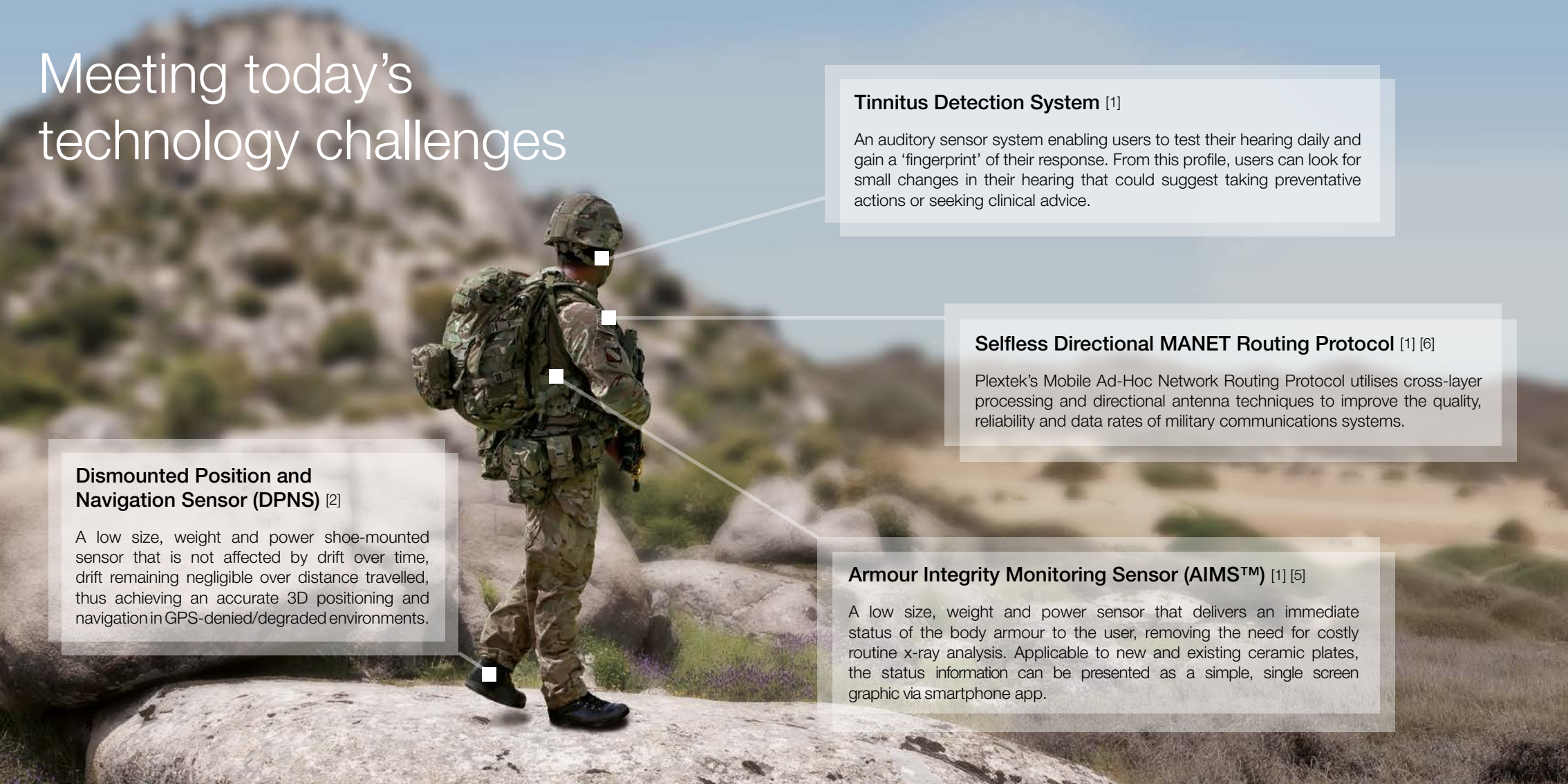


# TECHNOLOGY-LED MODERNISATION



to meet the challenges and needs  
of the modern infantry soldier

# Meeting today's technology challenges



## **Tinnitus Detection System** [1]

An auditory sensor system enabling users to test their hearing daily and gain a 'fingerprint' of their response. From this profile, users can look for small changes in their hearing that could suggest taking preventative actions or seeking clinical advice.

## **Selfless Directional MANET Routing Protocol** [1] [6]

Plextek's Mobile Ad-Hoc Network Routing Protocol utilises cross-layer processing and directional antenna techniques to improve the quality, reliability and data rates of military communications systems.

## **Dismounted Position and Navigation Sensor (DPNS)** [2]

A low size, weight and power shoe-mounted sensor that is not affected by drift over time, drift remaining negligible over distance travelled, thus achieving an accurate 3D positioning and navigation in GPS-denied/degraded environments.

## **Armour Integrity Monitoring Sensor (AIMS™)** [1] [5]

A low size, weight and power sensor that delivers an immediate status of the body armour to the user, removing the need for costly routine x-ray analysis. Applicable to new and existing ceramic plates, the status information can be presented as a simple, single screen graphic via smartphone app.

## Fractionated Electronic Support Measures [1] [3] [4]

Plextek's Fractionated Electronic Support Measures technology can enable a swarm of drones to scan for various target transmissions simultaneously. Once a drone detects a target transmission, it cues the other drones to search for the same signal and monitor the target area to pinpoint and relay the coordinates back to base.

### mm-wave radar [1]

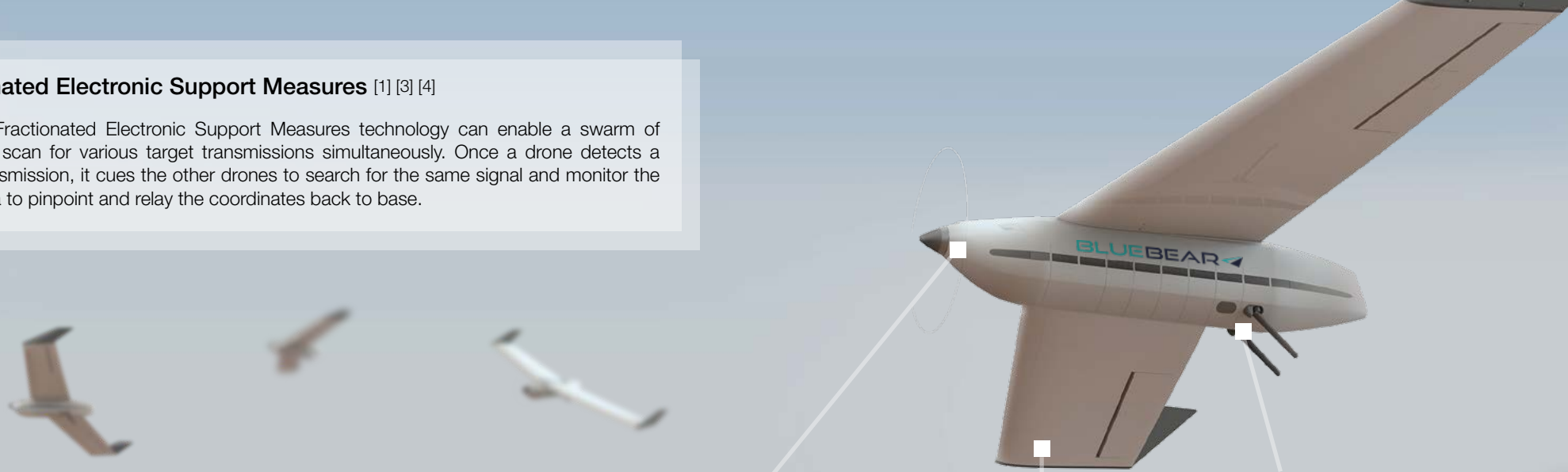
A day/night, all-weather situational awareness sensor. Capable of detecting, tracking and recognition of static and moving objects, this compact mm-wave radar has applications ranging from counter-UAS and overwatch to sense and avoid.

### Conformal antennas for RF systems [1]

Antennas designed for optimised performance on small fixed-wing drones, covering multi-band communications (VHF, UHF and low microwave), wideband (VHF to 6 GHz) and directional (1 to 6 GHz) electronic support measures.

### Common RF eco-system [1] [3]

Development of a low size, weight and power SDR architecture capable of synchronous measurement of multiple channels to facilitate communications, electronic attack, electronic support measures, and radar functionality.





Technologies illustrated in partnership with:

[1]  [2]  [3] 

[4]  [5]  

[6]   

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