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Exploitation and development of affordable sensor technology will enable the UK to meet evolving threats and maintain capability and freedom of action where necessary.

The Integrated Sensing Programme provides UK Armed Forces with an enhanced, timely and robust situational awareness capability across land, sea and air. This capability supports military effects through the integration of a broad range of sensor technologies.

The main themes of the programme include:

- multi-function and networked sensing: providing enhanced functionality by integrating sensing capabilities together to provide benefits including reduced size, weight and power, improved accuracy of situational awareness, increased modularity delivered through defined open architectures, which increases the ability to carry out spiral upgrades, and increased commonality of component sub-systems across all sensing capabilities

Approximate funding (2015/16):

£25.2 million - 78% is delivered externally*

*The 2015/16 funding is a projected forecast and is subject to change in-year.

- novel sensors: providing specific technologies for particular sensor capabilities including future Typhoon, Type 23/Type 26 above water platforms and ground-based air defence systems
 - electronic surveillance: increasing the provision of such information across the UK Armed Forces
 - core technologies: ensuring that core technologies are available and mature for current and future sensing needs
- from a wide range of technology providers to offer new solutions to the problem of collecting, processing and delivering situational awareness information to the dismounted soldier
- Selex ES lead the UK industrial contribution for a UK/France collaborative project, PERFECTA, which is developing and testing proposed multi-function sensor architectures for future integrated sensing capabilities

Working in partnership

Some aspects of this programme are already contracted with various consortia, including:

- Crest Consortium, led by QinetiQ, deliver the Communications and Cross-Cutting Electronic Surveillance (CCCES) project which addresses joint requirements for electronic surveillance
- Team Prometheus, a consortium led by Chemring Technology Solutions, deliver the Dismounted Close Combat Sensors project, which identifies novel sensor technologies

A world leading, high performance software-defined thermal imaging camera has been developed by Selex ES. Traditional high-performance thermal cameras are bulky because they operate at 80K but the UK's high operating temperature (HOT) technology has pushed the operating temperature up towards 200K, significantly reducing SWAP for the same performance.

For more information about this programme, contact: centralenquiries@dstl.gov.uk.

