

## CEMA assurance

### Introduction

The Cyber and Electromagnetic Activities (CEMA) operational environment is changing at an unprecedented rate. It is increasingly complex, congested, and contested both at the sub-threshold level (the Grey Zone) and during full warfighting operations. Collectively, we need to establish the ability to test, evaluate, and train in this environment to ensure that we can maintain our freedom to operate despite the challenges of our adversaries, especially as they can often adapt quickly and operate in a less-constrained manner. Importantly, we need to bring together emerging cyber activities and capabilities, together with traditional Electronic Warfare Operations and Electromagnetic Activities, in order to harness the synergies of these capabilities across all military domains.

## CEMA Assurance

The need for close collaboration between disparate parts of Defence, Partners across Government, and the contractor communities is paramount. No one is able to deliver the capabilities required alone, so at QinetiQ we are working collaboratively to provide an environment that will allow Defence Partners, Industry Partners, and overseas customers to:

- Can provide federated capabilities, both internally with QinetiQ and also with partners.
- Experiment in open and closed conditions, conscious of the need to maintain appropriate levels of security.
- Test emerging CEMA capabilities on operational platforms.
- Train Frontline Command Crews to operate the emerging capabilities effectively.
- Train Frontline Command Crews (and headquarters Staffs) to operate effectively in CEMA-contested environments.
- Train all operators and staff to operate at multiple classification levels.

## How QinetiQ can help

At QinetiQ, we bring together people with different skill sets and backgrounds from both the traditional Electronic Warfare (EW) and Cyber communities. We maximise our CEMA enabled real estate and facilities and we work with partners to enrich our capabilities, offering the ability to shape the right environment to allow customers to achieve a high level of CEMA assurance. The goal is to ensure that all customers (military or otherwise) are fully prepared to deal with challenges, and to understand and mitigate vulnerabilities, whether engaged in sub-threshold or above-threshold operations. Our intent is to provide customers with the confidence to operate with impunity and to have full freedom of manoeuvre.

Working across the digital and electromagnetic environment, we offer a range of scalable assurance, training, experimentation and threat emulation services – preparing forces for operations against the most capable CEMA adversaries. This level of CEMA assurance comes from being able to provide a number of the enabling activities.

## Addressing the challenge

We are utilising and cohering specialist expertise and knowledge across industry and we are already working with credible and experienced SMEs to assist our growth. The key to success is the adoption of open standards and architectures to improve interoperability, to increase our flexibility and scalability, and to ensure that we can work in a multi-layered security environment.

We are actively focussed on all aspects of CEMA Mission Assurance: from Test, Acceptance, Capability Integration, Training, Exercising and Mission Rehearsal. The coherence of all of these elements will be key to ensuring mission assurance success.

- To maximise effectiveness, and to ensure a cost-effective approach, we need to deliver these capabilities through the use of configurable and federated CEMA environments (live, virtual and constructive) - utilising our significant and unique real estate; our facilities; and our wider capabilities (including people).
- Importantly, we also view a collaborative approach with industry partners, and other Defence partners and customers, as key to delivering success.

---

### For further information please contact

Cody Technology Park  
Ively Road, Farnborough  
Hampshire, GU14 0LX  
United Kingdom  
+44 (0)1252 392000  
Paul Wallace – PJWALLACE@qinetiq.com  
www.QinetiQ.com