



Image: QinetiQ

# XCITE

Transforming future training

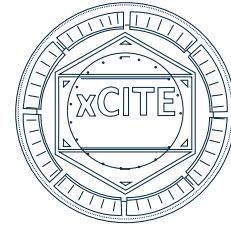
QinetiQ has harnessed its immersive, adaptive and gamified learning capability to future-proof defence training. We've used internal investment to explore innovative concepts and address an area of real customer need.



## The Challenge

Defence and Security is facing increasing demand for distributed individual and team training, and optimal use of live and synthetic blended opportunities to enable effective and time-compressed training. Training should reuse best practice from military and civil training, and reflect future force flexibility needs.

This is illustrated in a navy use case. In common with many defence clients, there is a drive to reduce at-sea training by transferring a growing proportion of training ashore, then validating that synthetic training at sea. By embracing new technology, organisations can reduce the length of learning, provide operational surge flexibility, and attract millennial recruits with a smart and exciting digital training experience.



The techniques on display at the xCITE event could also be used across all the Armed Forces, in high-risk industry, in schools, universities, hospitals, at home, or for corporate training.

## The solution

xCITE - 'xCollective Innovative Training Environment'

Together with award-winning technology providers and academic expertise, QinetiQ meets these challenges by offering blended, immersive and interactive 24/7 training. xCITE introduces layers of innovation, including gamification and adaptive learning, alongside team virtual reality scenario-based learning, so content and progress is personalised for each learner.

## Adaptive learning

Adaptive learning meets individual learner needs and is accessible, portable and device agnostic. Instructors can interact with and dynamically monitor trainee performance, so high achievers excel, reach performance standards sooner, or can take on extra learning. Those needing more support can receive rapid intervention online and tailored content.

Maximising readiness for training reduces formal training time and the burden on instructors. Real-time reports provide progress analysis and assessment scores, and identify where to focus valuable face-to-face time. Future requirements for

instructors can be predicted, alongside improvements to course content.

## Gamification

Provides an engaging learner experience, leading to behaviour change that motivates learners. Progression is through friendly competition, and a sense of achievement is enhanced by rewards. Team learning encourages bonding across multiple locations and each team can review performances, discuss where they need to improve, and plan their next engagement.

## Team Virtual reality

Virtual reality supports delivery of team, collective, and cross-capability training.

It immerses trainees and trainers together in realistic scenarios to practice team skills and conduct continuation training, without the burden of real equipment.

Visualisation is targeted against learning goals to simplify complex concepts and theories.

The solution results in trainees experiencing realistic and challenging real-world scenarios, safely, through virtual exploration. Team members support each other, wherever they're located, enhanced by online virtual instructors and role players connected both verbally and visually.

## Key features and benefits

- Scalable - open, scalable, multi-configurable architecture
- Global - blended learning across multiple locations
- Adaptive - agile learning to meet needs of individual, team and collective training
- Portable - enabling learning and measurement across the training continuum
- Retention - gamification appeals to millennial generation recruits
- Immersive - immersive virtual training scenarios aligned to correct levels of fidelity for the task
- Training safely - challenging and potentially life-threatening scenarios can be rehearsed safely through virtual exploration.

“ Using VR is brilliant & it's intuitive and really immersive. The biggest selling point was when we reached the stage where we started to behave like we would at sea - concentrating on the task but having a laugh with colleagues as well. You can take a couple of headsets and a computer and rehearse basic drills, for example, bringing people on much faster than having to wait for time in a simulator or on a submarine. And it's fun - a big selling point for younger generations. ”

A coxswain in Trafalgar-class boats, and a submariner for 30 years.

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