

# News story: Dstl's first virtual reality collaboration is a success

The Defence Science and Technology Laboratory (Dstl) has held its first-ever virtual reality (VR) collaboration – with staff based at different Dstl sites meeting in cyber-space to collaborate on building a virtual aircraft engine. This first trial was a success, leaving the way open for more virtual meetings, including supporting training for a wide range of law enforcement and defence agencies.

If there's a major incident or humanitarian crisis anywhere in the world, the police agencies and the military could come together in a safe VR environment to prepare for the challenges they will face before they arrive on-site. The technology can also support training together from remote locations.

This virtual collaboration can take place between multiple sites, without anyone ever leaving their office, and can be done over secure lines, allowing sensitive scenarios to be used.

Participating in this first trial, a Dstl tester said:

I was standing in a warehouse and could see a table with items. I could move over to it by clicking on the hand controller. Suddenly, I'm near some engine parts, part of an aeroplane on a bench. It's hyper-real and totally immersive.

The VR headset and hand controllers allow people to interact, talk to each other, point at and pick up items, and even fist-bump at the end of a successful meeting.

Mike Ferguson, from Immersive Technologies at Dstl, said:

This is the first time this has been done at Dstl. We've identified a technology to do it, which presents huge opportunities for shared training, meeting and even new design work.

Collaborating in a virtual volumetric space, using the latest VR technology, is very new. We've tried other systems, but this is the first VR system that we've found which is really effective. It's still evolving; in the future we'll be in a virtual space as ourselves and be able to see lifelike avatars. It's connecting with people. It's making the world smaller.

For us, we're really interested in how we can develop the

technology to support our customers to train more smartly, efficiently and effectively in the future. We learn by doing – enhancing muscle memory. By actually doing it, it helps you to perform better. With ever-increasing demands on our Policing and Defence colleagues, finding the time for quality training is becoming a challenge. We think we can alleviate some of the burden through use of this technology.

Using Augmented Reality (AR) and VR – Doctors could one day to operate remotely, connected to surgical equipment at other locations.

In response to a terrorism incident anywhere in the world, the UK could help using remote 360 degree cameras, virtually placing an expert on the scene who can assess forensic opportunities or advise on an unusual explosive device.