



HADEAN

BAE SYSTEMS

# Powering the future of multi-domain training and wargaming

BAE Systems and Hadean joined forces to exploit state-of-the-art AI and Large Language Model (LLM) integrations of the Hadean Platform and power the next generation of synthetic training environments for the military forces of tomorrow.

At the core of our collaboration is Project OdySSEy – a single synthetic environment for multi-domain training and wargaming, brought together by a consortium of expert SMEs in data analytics, AR and VR.

The capability focuses on developing a large-scale synthetic training environment designed to support comprehensive multi-domain military exercises. It integrates high-fidelity artificial intelligence to simulate complex patterns of life, creating a realistic and immersive training platform for forces operating in air, land, sea, space, and cyber domains.

**Delivering more  
cost effective  
and sustainable  
secure training solutions**

**Multi-domain  
integration  
through AR & VR in a  
singular environment**

**Real-time  
collective training  
scenario generation and  
after action review**

## Hadean's Role

Hadean's AI-powered spatial computing platform transcends the boundaries of existing simulation systems to maximise training output by creating a common operating picture for multi-domain training that reflects the strategic complexity of the real world.

- Framework is built to facilitate seamless training exercises across multiple domains for a cohesive and integrated training experience that mirrors real-world operations
- To accommodate the immense scale and complexity of the simulations, Project OdySSEy provisions robust compute power. This ensures that the synthetic environment runs smoothly, supporting the detailed and expansive scenarios necessary for effective training
- More affordable and more frequent and diverse exercises without the logistical and financial constraints of live training
- The use of advanced AI and high-quality simulations ensures that the training scenarios are as close to real-life as possible
- High fidelity graphics and environment for better prepared forces for the complexities of modern operations, ensuring they achieve peak operational readiness

**Get an in-depth understanding of the project  
by watching the video here**

## Benefits

- Same world view for all trainees, connected locally or remotely
- Fixing data issues on the fly without delaying training or disrupting immersion. Far more immersive experience if we can fix problems on the fly
- Less compute hardware needed on site and tests can be conducted in advance. As we bring more constructive elements in the computing power is significant
- Automatically bridge between incompatible systems. What we demonstrated is bridging TAK and VBS, which use two totally different protocols. In a normal combined training exercise with synthetic elements they wouldn't be able to play together

*"The strength of Project OdySSEy is built on the diverse range of innovative companies we are working alongside and Hadean is at the heart of this success. By harnessing its agile, scalable technology we are able to support our customers' need to deliver more complex, secure, affordable and sustainable training in the virtual world. We are really excited to be working with Hadean on Project OdySSEy and we believe we have only started to unlock the huge potential benefits it can bring for training the military forces of tomorrow."*

**Lucy Walton, Head of Training, BAE Systems – Air**