

ITEC 2026  
ExCel London  
15 April 2026

# Which War Are We Preparing For?

Andy Fawkes

# Setting the Scene

# The Nature of Warfare

**Subject:**

# **Unleashing US Military Drone Dominance**

**10 July 2025**

CUI \*Corrected Copy

 **SECRETARY OF DEFENSE**  
1000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-1000

JUL 10 2025

MEMORANDUM FOR SENIOR PENTAGON LEADERSHIP  
COMMANDERS OF THE COMBATANT COMMANDS  
DIRECTORS OF DEFENSE AGENCIES

SUBJECT: Unleashing U.S. Military Drone Dominance

When I became the Secretary of Defense, I committed to rebuild our military to match threats to capabilities. Drones are the biggest battlefield innovation in a generation, accounting for most of this year's casualties in Ukraine. Our adversaries collectively produce millions of cheap drones each year. While global military drone production skyrocketed over the last three years, the previous administration deployed red tape. U.S. units are not outfitted with the lethal small drones the modern battlefield requires.

On June 6<sup>th</sup>, President Trump issued Executive Order 14307 to support the American drone industry and arm our warfighters. The Department of Defense is going above and beyond this order. I am rescinding restrictive policies that hindered production and limited access to these vital technologies, unleashing the combined potential of American manufacturing and warfighter ingenuity. I am delegating authorities to procure and operate drones from the bureaucracy to our warfighters.

Our mission is threefold. First, we will bolster the nascent U.S. drone manufacturing base by approving hundreds of American products for purchase by our military. Leveraging private capital flows that support this industry, our overt preference is to Buy American.

Second, we will power a technological leapfrog, arming our combat units with a variety of low-cost drones made by America's world-leading engineers and AI experts. Drone dominance is a process race as much as a technological race. Modern battlefield innovation demands a new procurement strategy that fuses manufacturers with our frontline troops.

Finally, we'll train as we expect to fight. To simulate the modern battlefield, senior officers must overcome the bureaucracy's instinctive risk-aversion on everything from budgeting to weaponizing and training. Next year I expect to see this capability integrated into all relevant combat training, including force-on-force drone wars.

Emergent technologies require new funding lines. To address the urgent need for drones, investment methods outlined in Executive Order 14307 are being investigated.

The directives detailed in the attached memorandum support our industrial base, reform acquisition, and field new technology for the warfighter. Lethality will not be hindered by self-imposed restrictions, especially when it comes to harnessing technologies we invented but were slow to pursue. Drone technology is advancing so rapidly, our major risk is risk-avoidance. The Department's bureaucratic gloves are coming off.

Attachment:  
As stated



\*Corrected copy to add UNCLASSIFIED when separated from attachment  
CUI

  
OSD006685-25/CMD009163-25

**‘Drones are the  
biggest battlefield  
innovation in a  
generation’**

**‘Next year (2026) I  
expect to see this  
capability integrated  
into all relevant  
combat training,  
including  
force-on-force drone  
wars’**

# Chief of the General Staff

General Sir Roly Walker KCB DSO, Chief of the General Staff  
RUSI Land Warfare Conference, June 2025



‘A £20 million tank and four experienced crew members lost to a £1,000 drone operated by a kid with only a few days training — who probably isn't even on the same map sheet as the tank.’

‘I want to spend 50% of our money on the 20% of crewed and expensive, and 50% on the remaining 80% of attritable.’

**20%**

Crewed  
Platforms

**40%**

Reusable  
Uncrewed

**40%**

Consumable  
Single-Use

**80% Uncrewed — British Army and SDR 2025 Strategy**

# Ukraine — 2025 In Numbers

*Ukrainian Ministry of Defence — Army of Drones Annual Report, January 2026*

---

# 820,000

**RUSSIAN TARGETS HIT BY UKRAINIAN DRONES IN 2025**

## 240,000

Personnel killed  
or critically wounded

## 62,000

Light vehicles  
destroyed

## 32,000

Enemy drones  
intercepted

# Drones Now Dominate The Battlefield

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80%

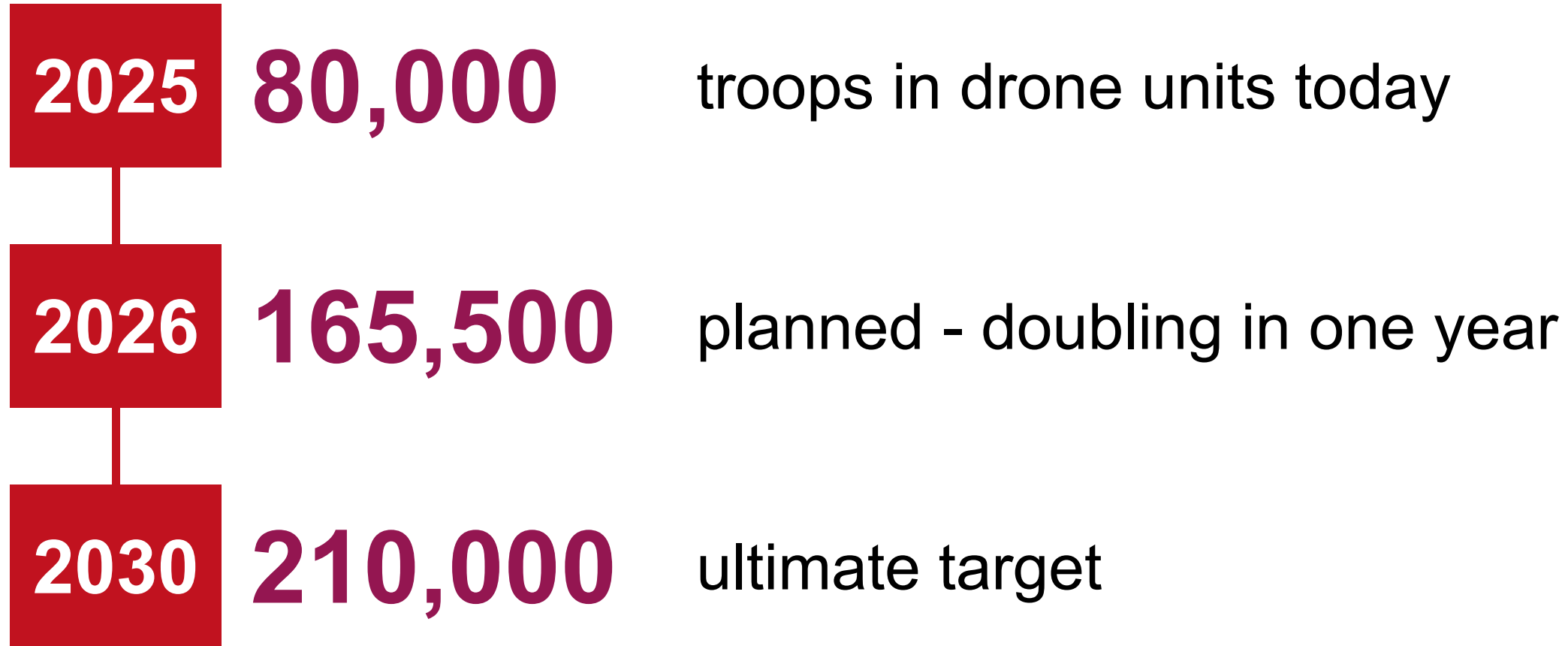
*"Over 80% of enemy targets are destroyed by drones.  
The vast majority are drones manufactured in Ukraine."*

— President Zelenskyy, Army of Drones 2025 event

# Russia Is Building A Drone Army

*Long War Journal / FDD — January 2026*

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*A dedicated military drone academy opens in 2027 | All instructors have Ukraine combat experience*

# Air Marshal (Retd) Edward Stringer & Dr Keith Dear AI SME at Fujitsu

 UK Parliament

**Committees**

[UK Parliament](#) > [Business](#) > [Committees](#) > [Defence Committee](#) > 3 February 2026

**3 February 2026 - One-off Session on the Future of Warfare - Oral evidence**

Committee ▶ [Defence Committee](#)  
Inquiry ▶ [One-off Session on the Future of Warfare](#)



## *Air Marshal Stringer*

- ‘I am staggered that I still hear officers in many places ... when asked about drones and the battlefield we see in Ukraine, say, “Oh, but we wouldn’t fight like the Ukrainians”
- The future of warfare does not look exactly like Ukraine, but it certainly involves a lot of what you are seeing in Ukraine, adapted for future theatres.’

## *Dr Keith Dear*

- any bet that drones are only going to have a small impact on the future of war is a pretty big bet against the progress we are seeing (e.g. *in AI*)

# Training Demand Signal?



IT2EC 2025 – Saab Training Drone



1 – 4 December | Orlando, FL

# I/ITSEC 2025

The World's Largest Modeling, Simulation & Training Event



## I/ITSEC 2025 Program – 110 Pages

- ‘unmanned’ – 4 times
- ‘uncrewed’ – 0 times
- ‘drones’ – 6 times

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Surely We Are  
Doing  
Something  
About This,  
Right?

**BBC NEWS** УКРАЇНА

Home War with Russia Stories Video BBC Book of the Year Podcasts

## "NATO's methods don't work anymore." Why weren't Ukrainian military trained to fight with drones at Polish training grounds?



GLOBAL IMAGES UKRAINE/GETTY IMAGES

Drone

**Victoria Kalimbet**  
BBC News Ukraine

November 17, 2025

Since 2022, the Armed Forces of Ukraine have been training in training centers in European countries. In particular, Poland provides its instructors and training grounds, where basic and special training of Ukrainian soldiers has

17 Nov  
25

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## British brigade 'destroyed' in Nato wargame

Armed Forces' quick defeat in drone-heavy exercise is wake-up call

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Thousands of soldiers from 12 Nato countries participated in the wargame Credit: AS1 Mark Dollard/Ministry of Defence

**Kieran Kelly**  
Kieran Kelly is a Foreign Breaking News Reporter at The Telegraph. See more

13 February 2026 8:38pm GMT

A British brigade was "destroyed" in a Nato wargame in Estonia last year, it has emerged

13 Feb  
26

# To be Fair - There is Some Movement

 **U.S. ARMY**

 MENU

SEARCH 

## Fort Benning integrates virtual drone training into OSUT program of instruction

By Capt. Stephanie Snyder February 12, 2026



FORT BENNING, Ga. — As small unmanned aircraft systems, sUAS, become a defining feature of the modern battlefield, the Maneuver Center of Excellence is ensuring every new Soldier has a high-tech edge.

One-Station Unit Training trainees are now undergoing a 10-hour sUAS familiarization course integrated into their formal program of instruction. Using Virtual Battle Space 4 software and the Virtual Drone Collective Trainer plug-in, Infantry and Armor trainees master flight mechanics before stepping onto a live flight line.

**SOLDIER**  
JAN 26

Update

Soldier Life

Views

Sport



**Innovation station**

### Infanteers have rolled up their sleeves to create a no-cost drone flying facility at their home base.

Lt Col Ben Irwin-Clark, CO of 1st Battalion, Irish Guards, told *Soldier* his troops had pieced together the hub at their Aldershot camp using kit donations from friends in the tech industry.

They also called on the specialist skills of their own personnel, such as a computer building hobbyist.

Located in Mons Barracks, the set-up includes a room with a 3D printer, various repair apparatus and first-person view (FPV) drone simulator software.

Next door, a hangar has been transformed into a close-quarters battle zone (shown) where UAS can be flown or Airsoft games played – including in downtime.

THINKE

# Wider Pressures



## Rapid Acquisition

*'An 85 percent solution in the hands of our armed forces today is infinitely better than an unachievable 100 percent solution endlessly undergoing testing or awaiting additional technological development.'*

7 November 2025

- Front-line warfighters will have a far greater say in deciding what capabilities and equipment are needed
  - Fast is The Focus
  - Competition, Modularity, and Multi-Source Practices
- 
- **What does this mean for Training and Training Systems themselves?**



# The Problem?



# Traditional Military Platforms



Platform  
Introduction  
Year 0



Mid-Life  
Upgrade  
Year  
15



Platform  
Retirement  
Year  
30

*Core training requirements can remain stable for 20-30 years*

# Drone Design and Execution in Day and Weeks

GOV.UK

Home > International > Foreign affairs

Press release

English | Українська

## Front line drone technology to fuel UK - Ukraine partnership

A landmark agreement between the UK and Ukraine to share battlefield technology has been reached today, boosting Ukraine's drone production and linking up the UK's defence industry with the cutting-edge technology being developed on the front lines in Ukraine.

From: [Prime Minister's Office, 10 Downing Street](#), [Ministry of Defence](#) and [The Rt Hon Sir Keir Starmer KCB KC MP](#)

Published 23 June 2025



A landmark agreement between the UK and Ukraine to share battlefield technology has been reached today, boosting Ukraine's drone production and linking up the UK's defence industry with the cutting-edge technology being developed on the front lines in Ukraine.

Prime Minister Keir Starmer and President Zelenskyy reached the agreement during the Ukrainian leader's visit to Downing Street today.

Technology data sets from Ukraine's front line are set to be plugged into UK production lines, allowing British defence firms to rapidly design and build, at scale, cutting edge military equipment available nowhere else in the world.

Ukraine is the world leader in drone design and execution, with drone technology evolving, on average, every six weeks.

‘drone  
technology  
evolving,  
on average,  
every 6 weeks’

# Another View

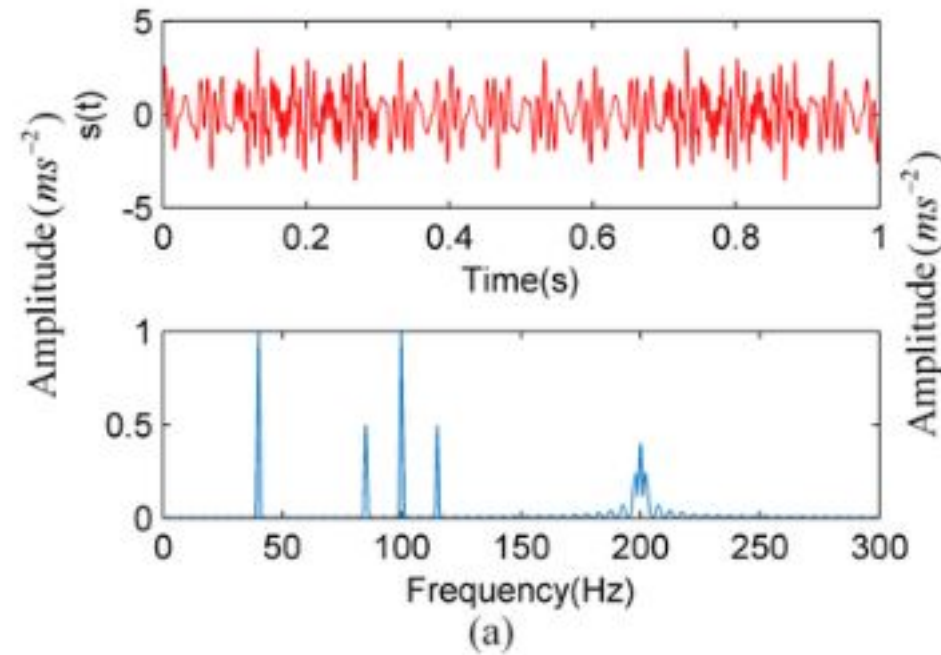


## From Software Supporting Hardware, To Hardware Supporting Software

- Defence forces will be increasingly defined not by the platforms and capabilities, but by the software that operates and connects them.
- Enhancing capabilities through frequent software upgrades and continually ensuring algorithmic superiority will be decisive in delivering military advantage.

# The Impact on Training

If Training Needs  
were a Signal



No  
w  
  
Before

# Two Models of Training Demand

## EPISODIC

- Years between signals
- Formal capability reviews
- Stable requirements
- Long development cycles

## CONTINUOUS

- Daily/weekly signals
- Real-time operational data
- Dynamic requirements
- Rapid adaptation needed

# Current Training Design

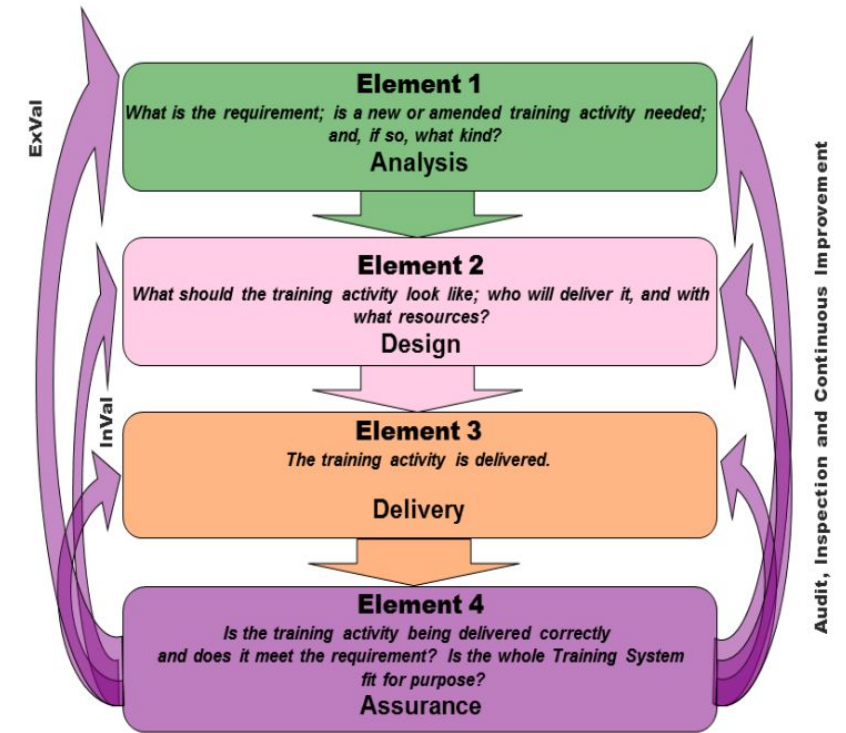
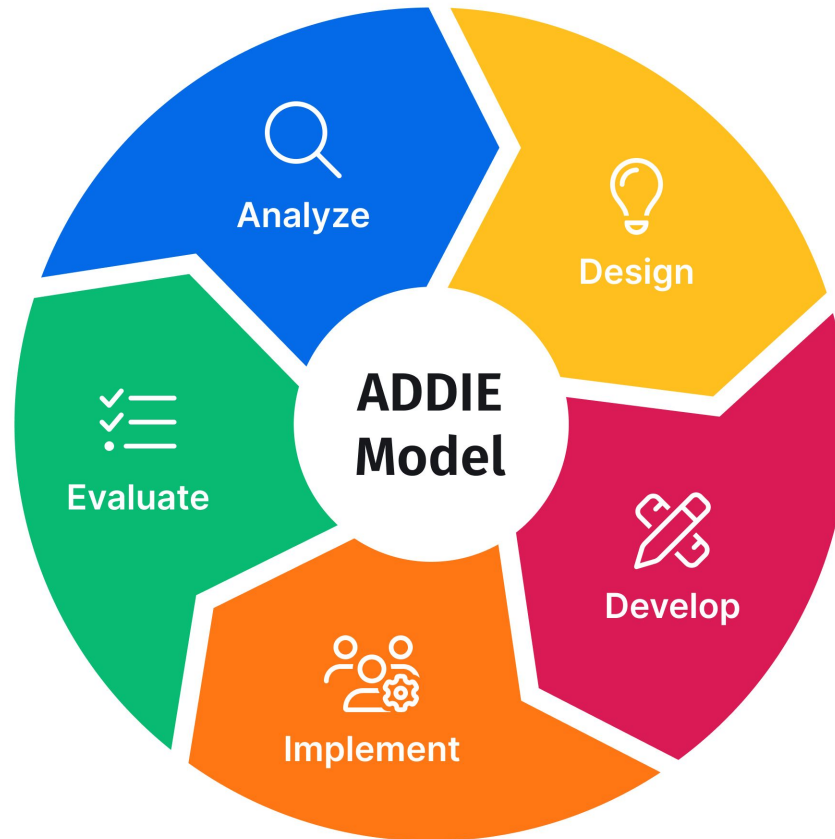


Figure 1: The Four Elements of DSAT<sup>9</sup>

## **ADDIE: Where It Works**

- Effective for stable, safety-critical platforms.
- Provides assurance, traceability, risk management.
- Assumes demand can be analysed and stabilised.

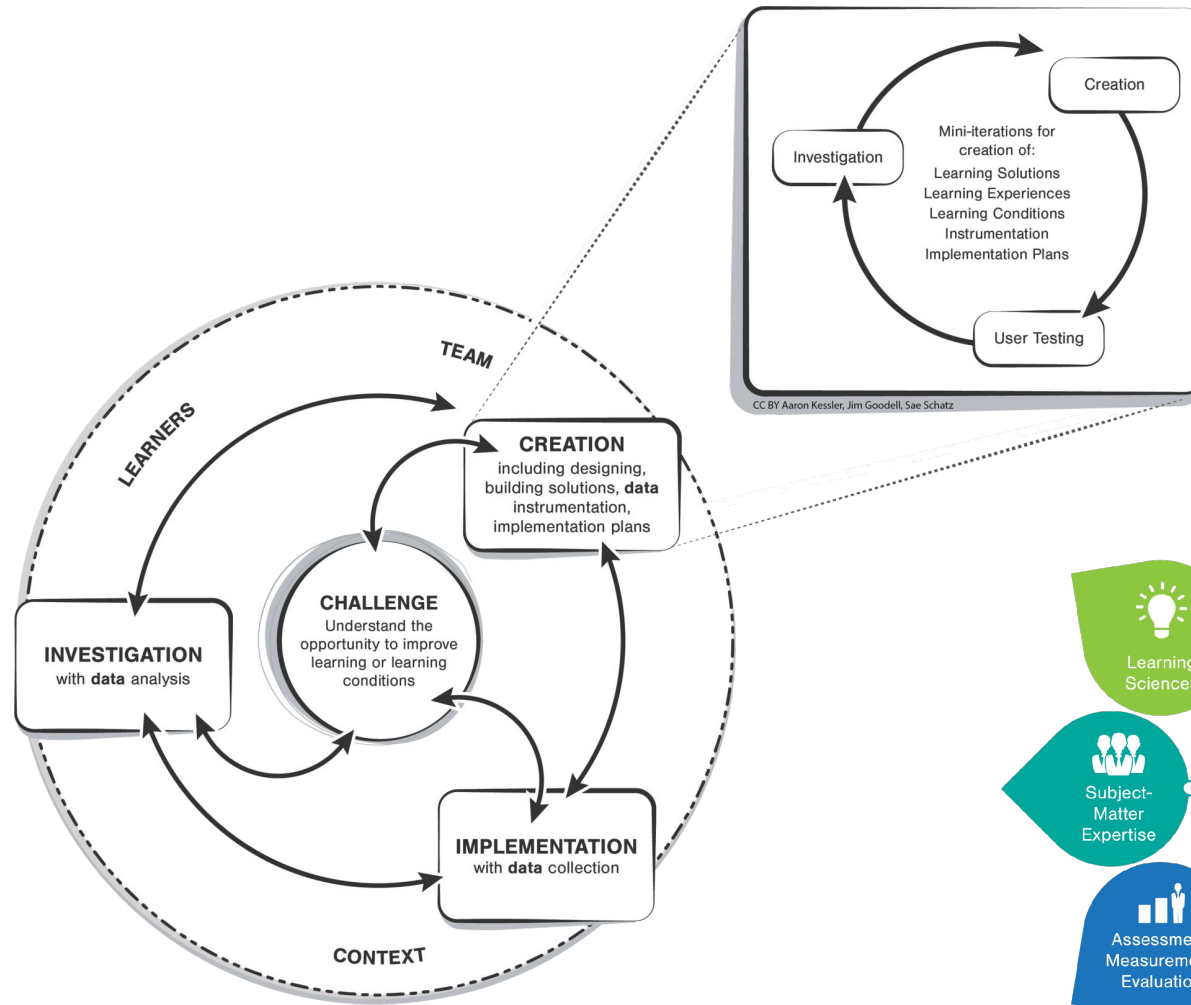
**Where  
ADDIE  
Struggles**

**When demand changes  
faster than design  
cycles, outputs are  
outdated**

# An Alternative?

## Learning Engineering

### Application of Learning Science, Data Driven, Highly Collaborative





# Learning Engineering Approach

*Training as a persistent, adaptive system*



## Continuous Sensing

Monitor demand signals constantly



## Impact-Based Priority

Focus on operational outcomes



## Rapid Adjustment

Update interventions quickly

Training materials become versioned like software:  
continuously updated as new evidence emerges

# Ukraine's Data-Driven Model



*After-action reports, performance data, and operator observations captured in near real-time*

**What if we  
are not at  
War?**

- **Wargaming and simulation run 24/7**

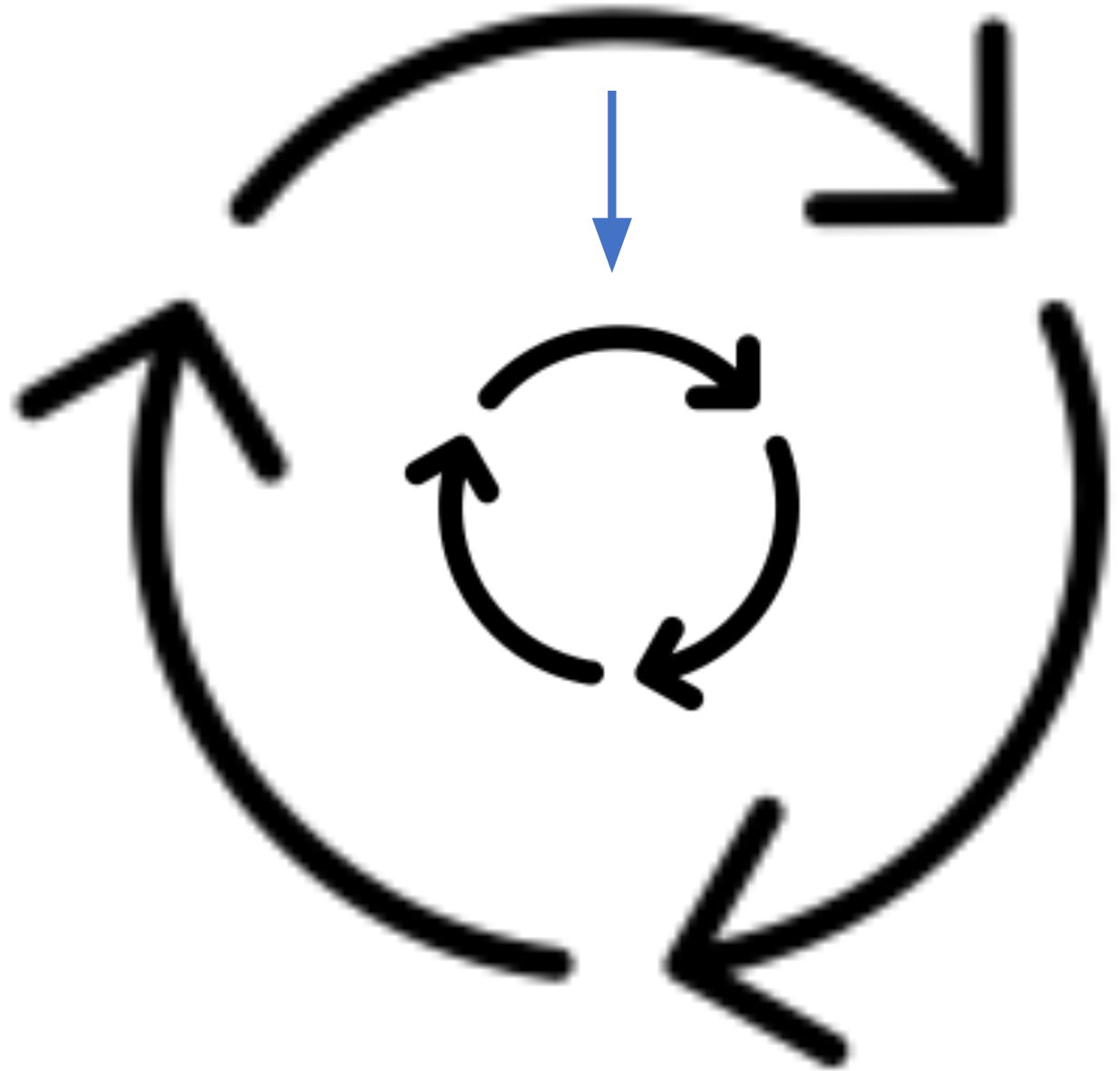
- **Instrument live environments to capture learning data**



**Simulation Can Speed  
Up the Military Cycle,  
but it Needs to be  
Speeded up Itself**

**Remove Barriers &  
Friction:-**

**Interoperable, Data &  
Software Commonality,  
Less Org. Barriers, a  
Sharing Connected  
Ecosystem**



# Beyond Process

# Implementation Challenges

## Regulatory

Accreditation  
built for stable  
curricula

## Cultural

Change seen as  
instability & extra  
work

## Industrial

Market optimised  
for long-life  
platforms

### The Solution?

**Accredit** processes and competency frameworks,  
move to data-driven training

**Distinguish** evidence-driven adaptation from  
uncontrolled change

# Three Strategic Options for the Enterprise

## OPTION 1: INCREMENTAL ADAPTATION

- **Accelerate existing structures** - Compress systems approach to training (JSP 822) from years to months/days via parallel development, streamlined approvals, increased resourcing
- **Problem:** 12-month cycles still insufficient when requirements evolve weekly

## OPTION 2: DUAL-TRACK SYSTEMS

- **Traditional processes** for stable platforms (fast jets, submarines, 24-month cycles)
- **Rapid-iteration systems** for software-defined capabilities (drones, cyber, EW, weeks-to-months)
- **Problem:** Cultural friction between communities, dual governance overhead, unclear if transitional or enduring

## OPTION 3: ENTERPRISE TRANSFORMATION

- Training functions as data-driven, continuously-adapting systems enterprise-wide (aka Learning Engineering)
- **Problem:** Do we wait for the crisis or build the system now?"

# Who Should Decide?



ITEC 2026  
ExCel London  
15 April 2026

# Questions?

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