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It will be the data
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By Phil Walker, CEO, Pennant International

Having travelled to defence shows across Europe, APAC and the Americas in recent weeks, one thing has struck me more than anything else:

The world has changed, and with it the assumptions on which we acquire and support military capability.

Low-cost drones can challenge high-value platforms. Technology evolves in months rather than decades. And recent conflicts have reminded us that warfare is as much about endurance, availability and regeneration as it is about the opening exchange. That changes the equation.

For decades, defence acquisition has understandably concentrated on the capability of the platform or system being procured: what it can do, how it performs, and how it compares with the threat. All of that remains critical.

But I believe the distinction we need to make is between acquiring capability and keeping it usable. How quickly we can understand, integrate, support, adapt and sustain a system once it is fielded must sit alongside its platform performance in our definition of capability.



We need to acquire faster, integrate faster, adapt faster and critically, sustain faster. Data is becoming part of the capability. This isn't simply my view but is recognised across all defence organisations.

NATO Allied Command Transformation has put the importance of data in remarkably clear terms:

"The ability to share relevant data reliably and in near real-time amongst Allies and Partners across all five military domains... determines superiority on the battlefield."

NATO's more recent Alliance Digital Strategy takes the argument further. Its vision is to give Allied leaders and warfighters "information and decision superiority" through rapid integration of secure, resilient and interoperable digital capabilities, including a focus on data-centric operations. To me, that points towards something fundamental.

Data is no longer simply an output of defence capability. Increasingly, it is an integral part of that capability.

But data alone isn't enough. In my simple mind, the equation looks like this:

STANDARDS + DATA + SUSTAINMENT = MISSION ADVANTAGE

Why standards?

Because rapid acquisition without standards risks creating a new problem: a growing ecosystem of platforms, technologies and suppliers that cannot easily exchange information or operate together. Again, NATO is very clear on the importance of this. In its Industrial Capacity Expansion Pledge, the Alliance states:

“Implementation of NATO standards is the prerequisite for interoperability.” NATO Industrial Capacity Expansion Pledge.

It also specifically calls for faster development and implementation of standards, including digital standards. The strategic challenge therefore isn't simply acquiring technology faster. It is acquiring technology faster without creating tomorrow's integration and support problem. And equally, standards without accurate, accessible and maintained data deliver limited operational value. We need both.

The digital thread needs to extend beyond engineering

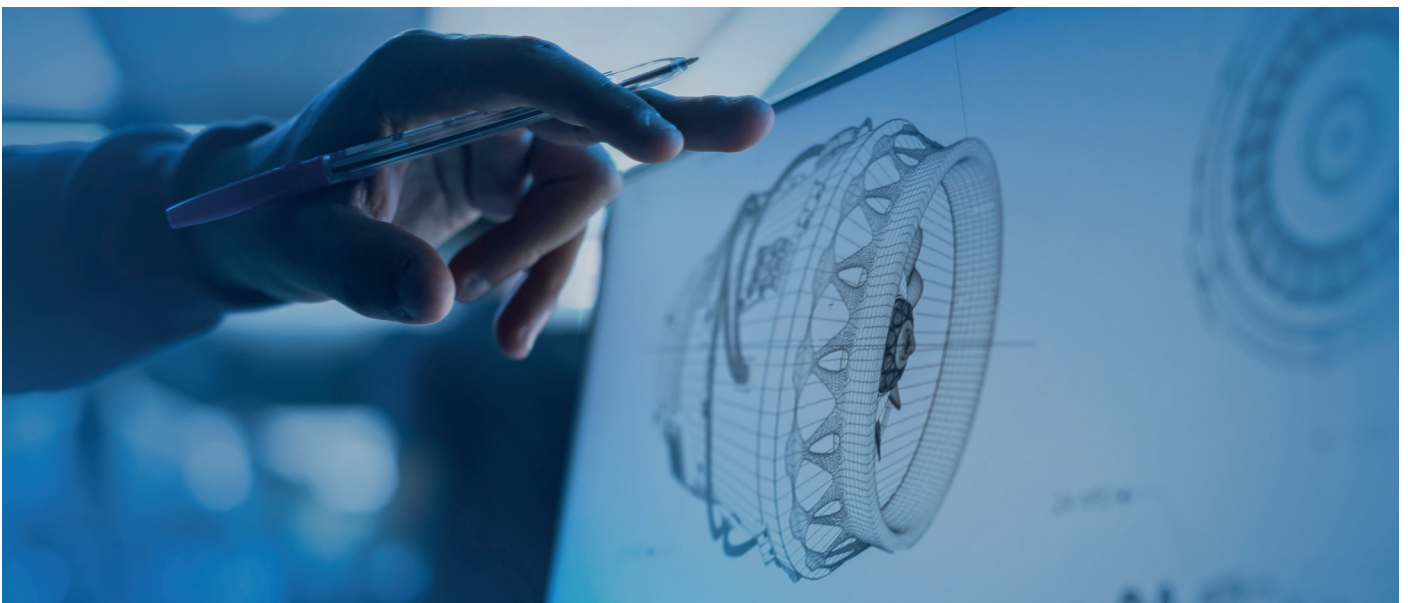
This is where I think the definition of the defence digital thread needs to broaden. Data should flow through the entire lifecycle of a capability:

REQUIREMENT → ACQUISITION → ENGINEERING → CONFIGURATION → TECHNICAL INFORMATION → MAINTENANCE → TRAINING → SUPPLY → OPERATIONAL SUPPORT

The information created when a system is designed shouldn't have to be recreated downstream for the maintainer, technical author, trainer, logistician or operator.

Nor should a configuration change exist in one system while the technical documentation, maintenance information or training environment tells a different story. A genuine digital thread connects these activities. And the quality, structure and interoperability of that information ultimately influence how effectively the physical asset can be supported.

I recently heard a major PLM provider present on the topic of “Asset availability starts with data configuration”.



Support is becoming a strategic capability

This leads me to what is perhaps the biggest change in thinking. Support has long been essential to capability. The challenge is ensuring that acquisition decisions give supportability the same weight as platform performance, from the outset. The risk is a familiar sequence: buy the capability first, then resolve how to support it. I believe that distinction is disappearing.



Support is becoming part of the capability itself

A sophisticated platform that cannot be maintained, modified or regenerated quickly has a very different operational value from one that can.

“The ability to know what you’ve got, what configuration it is in, what technical information applies to it, what it needs, how to maintain it and how quickly it can be returned to service becomes strategically important.”

This isn’t about diminishing the importance of the platform. Quite the opposite. It is about maximising its operational availability and usefulness throughout its life.

From platform advantage to mission advantage

- The platform still matters
- The weapon still matters
- Performance still matters

But increasingly I believe the competitive advantage lies in the combination of the physical and digital worlds. The organisations that can connect engineering knowledge, product configuration, technical information and support information will be better positioned to exploit that capability throughout its lifecycle.

For allied forces, interoperability adds another dimension. NATO describes its digital transformation as being underpinned by the imperatives of *“interoperability, security, innovation, and operational superiority.”*

That feels significant. Because in a coalition environment, the objective isn’t merely for one platform to operate effectively. People, systems, data and organisations need to work together. That requires common approaches, common standards and trusted information.

MODEL. MANAGE. MAINTAIN

This thinking sits at the heart of what we are developing with Auxilium®.

We’ve deliberately distilled the idea into three words:

MODEL. MANAGE. MAINTAIN

MODEL the complex relationships between the asset / system, its configuration and the support environment.

MANAGE the information needed throughout its lifecycle.

MAINTAIN the capability so that it remains available and supportable when it matters.

The technology is important. But the underlying philosophy is bigger than any individual software product. It is about connecting standards, data and sustainment in a world in which defence organisations must introduce capability faster, integrate new technology more rapidly and sustain increasingly complex fleets for longer.

The strategic advantage may be changing

For me, this is the big conclusion from the conversations I've been having across Europe, APAC and the Americas. The next generation of defence advantage will clearly still depend on extraordinary platforms, weapons and technologies but that isn't the whole equation. It will also depend on the digital infrastructure and quality of information sitting behind them.

- Can we understand the capability?
- Can we integrate it?
- Can we adapt it?
- Can we support it?
- Can we regenerate it?
- And can we return it to the fight faster than our adversary?

Because the next defence advantage won't just be the weapon - it will be the data behind it.

AUXILIUM®. MODEL. MANAGE. MAINTAIN.

